ENSOLUM

January 17, 2023

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Request
Dominator Federal 25 O CTB
Incident Number NAPP2230729294
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document initial assessment, remediation, and soil sampling activities performed at the Dominator Federal 25 O CTB (Site; Figure 1). The purpose of the soil sampling activities was to assess for the presence or absence of impacted soil following a release of produced water. Based on Site assessment, excavation activities, and laboratory analytical results, COG is requesting closure for Incident Number NAPP2230729294.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 25, Township 25 South, Range 33 East, in Lea County, New Mexico (32.095391° N, 103.525871° W) and is associated with oil and gas exploration and production operations on federally owned surface managed by the Bureau of Land Management (BLM).

On October 22, 2022, a strike to a flowline by an unknown operator caused a release of produced water. Approximately 15.01 barrels (bbls) of produced water were released off pad. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 10 bbls of released produced water were recovered. COG submitted a Release Notification Form C-141 (Form C-141) on November 3, 2022 to the New Mexico Oil Conservation Commission (NMOCD). The release was assigned Incident Number NAPP2230729294.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess applicability of *Table I*, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization (Appendix A). Potential site receptors are identified on Figure 1.

Based on a desktop review of regional hydrologic data, no known groundwater sources are located within a 0.5-mile radius of the Site. Depth to groundwater at the Site is estimated to be

greater than 100 feet below ground surface (bgs) based on the nearest available groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office the State Engineer (NMOSE) permitted well C-02313, located approximately 6,980 feet west of the Site. The groundwater well has a reported depth to groundwater of 110 feet bgs and a total depth of 150 feet bgs. Ground surface elevation at the groundwater well location is 3,325 feet above mean sea level (amsl), which is approximately 13 feet lower in elevation than the Site. Nearby water wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is a unnamed dry wash, located approximately 6,062 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, and wetland. The Site is greater than 1,000 feet of a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum hydrocarbons (TPH): 2,500 mg/kg
- TPH-Diesel Range Organics (DRO) + TPH-Gasoline Range Organics (GRO): 1,000 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the release area on pad that was impacted by the release, per 19.15.29.13.D (1) NMAC.

INITIAL SITE ASSESSMENT ACTIVITIES

On November 14, 2022, Ensolum evaluated the release based on information provided on the Form C-141 and visual observations. Onsite personnel documented the release and mapped the release extent (Figure 2). Ensolum collected delineation soil samples SS01 and SS02 within the release extent to characterize surficial soil. Soil samples SS03 through SS06 were collected outside the release extent to assess the lateral extent of the release. All delineation soil samples were collected at a depth of 0.2 feet bgs.

All soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. The soil sample locations were mapped using a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Ensolum completed photographic documentation during the initial Site assessment and a photographic log is included as Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following

United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for soil samples SS01 and SS02 indicated all COCs were compliant with the Site Closure Criteria. However, laboratory analytical results for SS01 and SS02 indicated that TPH and/or chloride concentrations exceeded the reclamation requirement. Laboratory analytical results for soil samples SS03 through SS06 indicated all COCs were compliant with the most stringent *Table I* Closure Criteria and successfully defined the lateral extent of the release. As such, remediation of waste-containing soil appeared warranted.

EXCAVATION ACTIVITIES

On December 9, 2022, Ensolum oversaw the excavation of waste-containing soil from the release extent as indicated by visible staining and laboratory analytical results from delineation soil samples SS01 and SS02. Excavation activities were performed via hand shoveling and back-hoe to a depth of approximately 1-foot bgs. To direct excavation activities, soil was field screened for VOCs and chloride. Photographic documentation of excavation activities is included in Appendix C.

Following removal of waste-containing soil, 5-point composite soil samples were collected every 200 square feet from the excavation floor. Due to the shallow depth of the excavation, soil from the sidewalls were incorporated into the floor samples. Excavation composite soil samples FS01 through FS04 were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation soil samples were handled and analyzed as previously described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 3.

Laboratory analytical results from excavation confirmation soil samples FS01 through FS04 indicated all COC concentrations were compliant with the Site Closure Criteria and the reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

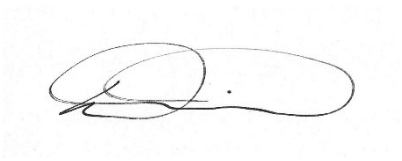
The total areal extent of the excavation was approximately 800 square feet. A total of approximately 30 cubic yards of waste-containing soil were removed during the excavation. The impacted soil was transported and properly disposed of at the R360 Disposal Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was backfilled.

CLOSURE REQUEST

Based on the initial recovery of free-standing fluid and excavation activities with subsequent confirmation soil sample laboratory analytical results compliant with the reclamation requirement, actions taken by COG appear to have successfully remediated waste-containing soil as the result of a produced water release at the Site. Delineation soil samples collected outside the release extent successfully define the edge of the release. COG believes these remedial actions have been protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2230729294. The Final C-141 is included in Appendix A and required notifications are included as Appendix E.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely,
Ensolum, LLC



Josh Adams, PG
Project Geologist

Daniel R. Moir, PG
Senior Managing Geologist

cc: Charles Beauvais, COG Operating, LLC
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Final C-141
Appendix B	Referenced Well Records
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports
Appendix E	NMOCD Notifications

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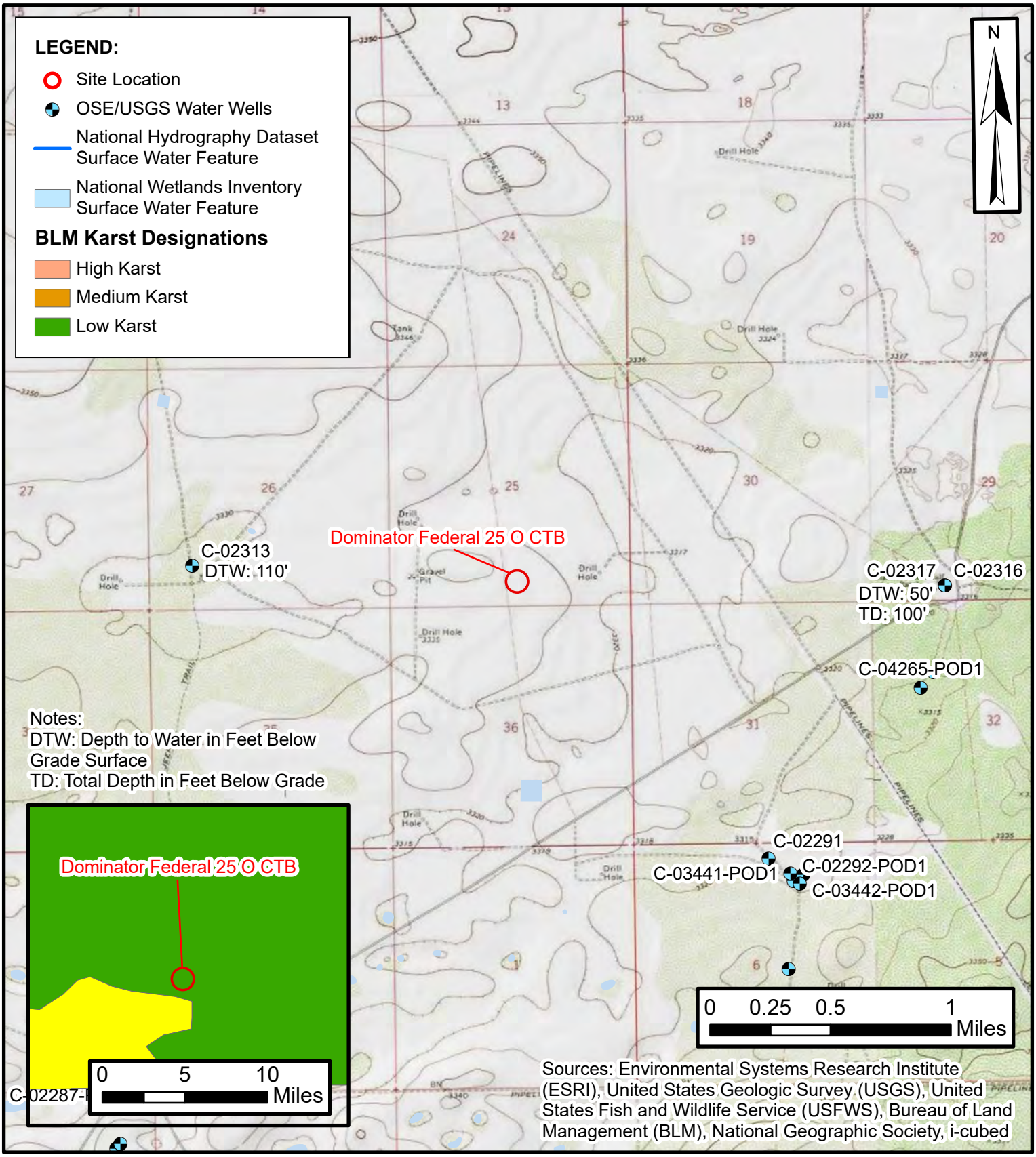
FIGURES



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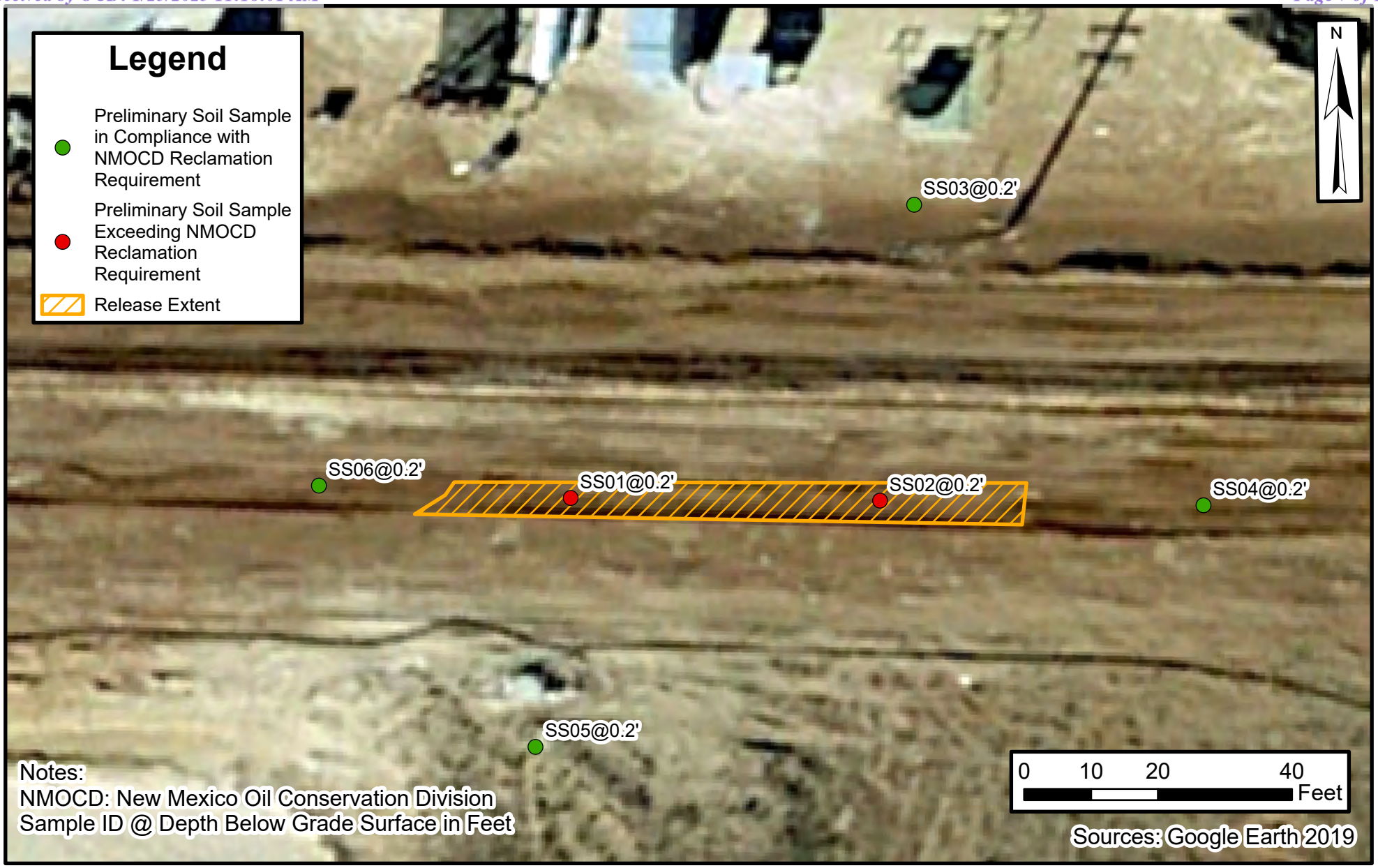
SITE RECEPTOR MAP

COG Operating, LLC
Dominator Federal 25 O CTB
Incident Number: NAPP2230729294
Unit O, Section 25, T 25S, R 33E
Lea County, New Mexico

FIGURE
1



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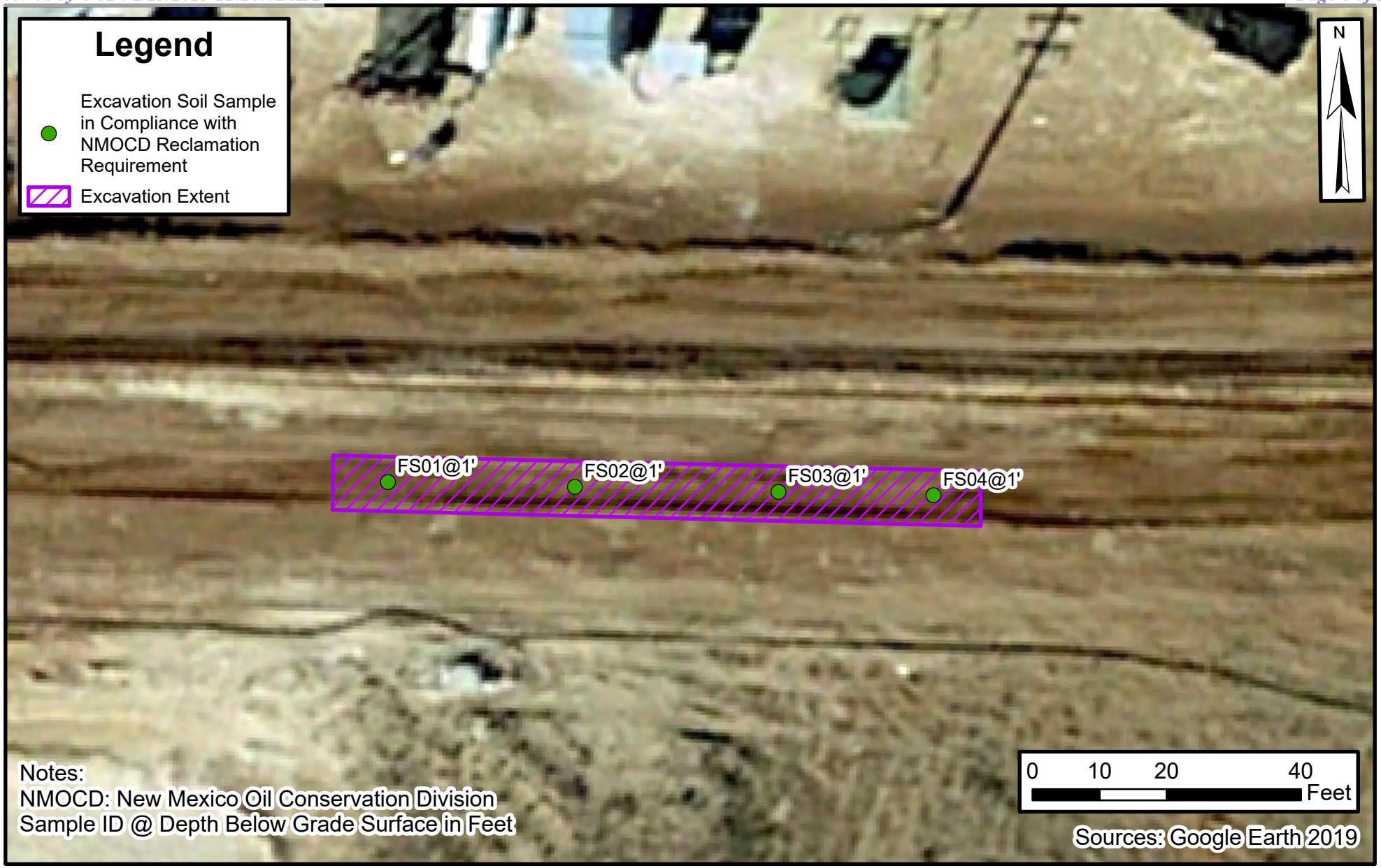
Delineation Soil Sample Locations

COG Operating, LLC
Dominator Federal 25 O CTB
Incident Number: NAPP2230729294
Unit O, Section 25, T 25S, R 33E
Lea County, New Mexico

FIGURE
2



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Excavation Soil Sample Locations

COG Operating, LLC
Dominator Federal 25 O CTB
Incident Number: NAPP2230729294
Unit O, Section 25, T 25S, R 33E
Lea County, New Mexico

FIGURE
3

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TABLE

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Dominator Federal 25 O CTB
COG Operating, LLC
Lea County, New Mexico

Sample Designation	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**	**NE**	**1,000**	**20,000**
Delineation Soil Samples										
SS01*	11/14/2022	0.2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	**1,130**
SS02*	11/14/2022	0.2	<0.00200	<0.00399	<49.9	295	<49.9	295	**295**	**9,540**
SS03*	11/14/2022	0.2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	70.3
SS04*	11/14/2022	0.2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	17.5
SS05*	11/14/2022	0.2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	45.3
SS06*	11/14/2022	0.2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	92.9
Excavation Soil Samples										
FS01*	12/09/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<5..05
FS02*	12/09/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	11.5
FS03*	12/09/2022	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	167
FS04*	12/09/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	79.7

Notes:
bgs: below ground surface
mg/kg: milligrams per kilogram
NE: not established
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
*Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirment where applicable.*
Grey text represents samples that have been excavated
** - indicates locations where the reclamation requirment was applied*

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APPENDIX A

Final C141

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	NAPP2230729294
District RP	
Facility ID	fAPP2203456444
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Charles Beauvais	Contact Telephone	(575) 988-2043
Contact email	Charles.R.Beauvais@ConocoPhillips.com	Incident # *(assigned by OCD)*	NAPP2230729294
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude ~~32.545~~ 32.095391 Longitude ~~-103.3132~~ -103.525871

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Dominator Federal 25 O CTB	Site Type	Flowline
Date Release Discovered	October 22, 2022	API# *(if applicable)*	

Unit Letter	Section	Township	Range	County
~~E~~ O	25	~~20S~~ 25S	~~36E~~ 33E	Lea

Surface Owner: ☐ State ■ Federal ☐ Tribal ~~■~~ Private (*Name:* ~~Cooper Dale Family Trust~~ BLM)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
■ Produced Water	Volume Released (bbls) 15.01	Volume Recovered (bbls) 10
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a strike to flowine from unknown operator. Strike was not communicated. The release was off the pad. A vacuum truck was dispatched to remove all freestanding fluids. Evaluation will be made at the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2230729294
District RP	
Facility ID	fAPP2203456444
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ■ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

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

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

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

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

Printed Name: Brittany N. Esparza Title: Environmental Technician

Signature: Brittany Esparza Date: 11/3/2022

email: Brittany.Esparza@ConocoPhillips.com Telephone: (432) 221-0398

OCD Only

Received by: Jocelyn Harimon Date: 11/03/2022

NAPP2230729294

L48 Spill Volume Estimate Form - Fill In Gray Cells

Facility Name & Well Number(s):	DOMINATOR O WELL 104					Release Discovery Date & Time:	10/24/2022 TIME 12:00		
Provide any known details about the event:	Open up a new well at a 15/64 choke went to the battery we notes water comeing out of the ground on the right away so we shut the well down and closed the header and blow it down the open top tank , recovered 10 bble of water								
				Recovered Volume (bbl.) (if available, not included in volume calculations)	Method of Determination (dropdown)	Release Type (dropdown):	> 1/2" of Rain in Last 24 Hours (dropdown):	% Rainwater Recovered (not included in volume calculations, informational):	
BU:	Permian	Asset Area:	DBE - Asset Avg.	10	Field Measurement	Produced Water	No	0%	
Known Volume (dropdown):	No								
Known Area (dropdown):	No								

Spill Calculation - Subsurface Spill - Rectangle								Remediation Recommendation	
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Average Depth (in.)	On/Off Pad (dropdown)	Soil Spilled-Fluid Saturation (%.)	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Total Estimated Contaminated Soil, uncompacted, 25% (yd^3.)	Current Rule of Thumb - RMR Handover Volume, (yd^3.)
Rectangle A	150.0	30.0	0.5	Off-Pad	15.02%	33.38	5.01	8.68	
Rectangle B				On-Pad	10.50%	0.00	0.00	0.00	
Rectangle C				On-Pad	10.50%	0.00	0.00	0.00	
Rectangle D						0.00		0.00	
Rectangle E						0.00		0.00	750
Rectangle F						0.00		0.00	
Rectangle G						0.00		0.00	
Rectangle H						0.00		0.00	
Rectangle I						0.00		0.00	
Rectangle J						0.00		0.00	
					Total Subsurface Volume Released:		5.01	8.68	BU

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 155885

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 155885
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	11/3/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2230729294
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2230729294
District RP	
Facility ID	
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 01/17/2023

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 01/23/2023

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2230729294
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: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 01/17/2023

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 01/23/2023

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

Closure Approved by: Jennifer Nobui Date: 02/09/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

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APPENDIX B

Referenced Well Record

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 02313	2	3	3	26	25S	33E	636971	3552098*

Driller License: **Driller Company:**

Driller Name: UNKNOWN

Drill Start Date:	01/01/1925	**Drill Finish Date:**	06/30/1925	**Plug Date:**	
Log File Date:		**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	60 GPM
Casing Size:	6.88	**Depth Well:**	150 feet	**Depth Water:**	110 feet

***UTM location was derived from PLSS - see Help**

National Water Information System: Web Interface

USGS Water Resources

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

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- **ALERT!** USGS will be performing an upgrade to their network on **Thursday, November 17, 2022, starting at 10:00pm EST**. During the maintenance period, the Water Data for the Nation web portal and water services will be accessible; however, delivery of the most recent time-series data and WaterAlert notifications will be disrupted. The maintenance period is not expected to exceed 4 hours, after which the backlog of time-series data will be processed and delivered.
- Water Data for the Nation Blog

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320523103294401

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 320523103294401 25S.34E.29.343322

Lea County, New Mexico
Latitude 32°05'23", Longitude 103°29'44" NAD27
Land-surface elevation 3,321 feet above NAVD88
The depth of the well is 165 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1970-12-08		D	62610		3192.28	NGVD29	1	Z			A
1970-12-08		D	62611		3193.85	NAVD88	1	Z			A
1970-12-08		D	72019	127.15			1	Z			A
1976-01-08		D	62610		3191.94	NGVD29	1	Z			A
1976-01-08		D	62611		3193.51	NAVD88	1	Z			A
1976-01-08		D	72019	127.49			1	Z			A
1981-03-25		D	62610		3187.33	NGVD29	1	Z			A
1981-03-25		D	62611		3188.90	NAVD88	1	Z			A
1981-03-25		D	72019	132.10			1	Z			A
1986-03-12		D	62610		3189.20	NGVD29	1	Z			A
1986-03-12		D	62611		3190.77	NAVD88	1	Z			A
1986-03-12		D	72019	130.23			1	Z			A
1991-06-06		D	62610		3190.92	NGVD29	1	Z			A
1991-06-06		D	62611		3192.49	NAVD88	1	Z			A
1991-06-06		D	72019	128.51			1	Z			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
COG Operating, LLC
Dominator Federal 25 O CTB
NAPP2230729294

Photograph 1 Date:11/14/2022

Description: View of the release area prior to remediation, looking east

Photograph 2 Date:12/09/2022

Description: View of the release area after remediation activities, looking east

Photograph 3 Date: 12/09/2022

Description: View of the release area after remediation activities, looking west

Photograph 4 Date: 12/09/2022

Description: View of the release after excavation activities, looking west

ENSOLUM

APPENDIX D

Laboratory Analytical Report

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
705 W. Wadley
Suite 210
Midland Texas 79701

Generated 11/22/2022 3:47:51 PM

JOB DESCRIPTION

Dominator 0 Flowline
SDG NUMBER 03D20224110

JOB NUMBER

890-3456-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Client: Ensolum
Project/Site: Dominator 0 Flowline

Laboratory Job ID: 890-3456-1
SDG: 03D20224110

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

Job ID: 890-3456-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3456-1

Receipt
The samples were received on 11/14/2022 3:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3456-1) and SS02 (890-3456-2).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-39851/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (880-21514-A-1-G MS) and (880-21514-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-3456-1) and SS02 (890-3456-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
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 880-39826 and 880-39826 and analytical batch 880-40018 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

Client Sample ID: SS01

Lab Sample ID: 890-3456-1
Matrix: Solid
Date Collected: 11/14/22 12:30
Date Received: 11/14/22 15:40
Sample Depth: 0.2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/17/22 16:04	11/22/22 11:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/17/22 16:04	11/22/22 11:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/17/22 16:04	11/22/22 11:15	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/17/22 16:04	11/22/22 11:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/17/22 16:04	11/22/22 11:15	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/17/22 16:04	11/22/22 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*151*	*S1+*	*70 - 130*	*11/17/22 16:04*	*11/22/22 11:15*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*11/17/22 16:04*	*11/22/22 11:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/22/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/21/22 10:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 02:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 02:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*11/17/22 08:58*	*11/19/22 02:21*	*1*
o-Terphenyl	*104*		*70 - 130*	*11/17/22 08:58*	*11/19/22 02:21*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1130**		4.97		mg/Kg			11/20/22 20:28	1

Client Sample ID: SS02

Lab Sample ID: 890-3456-2
Matrix: Solid
Date Collected: 11/14/22 12:35
Date Received: 11/14/22 15:40
Sample Depth: 0.2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:04	11/22/22 11:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:04	11/22/22 11:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:04	11/22/22 11:41	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/17/22 16:04	11/22/22 11:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:04	11/22/22 11:41	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/17/22 16:04	11/22/22 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*11/17/22 16:04*	*11/22/22 11:41*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

Client Sample ID: SS02

Date Collected: 11/14/22 12:35
Date Received: 11/14/22 15:40
Sample Depth: 0.2

Lab Sample ID: 890-3456-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*11/17/22 16:04*	*11/22/22 11:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/22/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**295**		49.9		mg/Kg			11/21/22 10:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 02:43	1
Diesel Range Organics (Over C10-C28)	**295**		49.9		mg/Kg		11/17/22 08:58	11/19/22 02:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/17/22 08:58*	*11/19/22 02:43*	*1*
o-Terphenyl	*117*		*70 - 130*	*11/17/22 08:58*	*11/19/22 02:43*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9540**		99.2		mg/Kg			11/20/22 20:45	20

Surrogate Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

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)
880-21514-A-1-G MS	Matrix Spike	135 S1+	84
880-21514-A-1-H MSD	Matrix Spike Duplicate	134 S1+	90
890-3456-1	SS01	151 S1+	85
890-3456-2	SS02	138 S1+	81
LCS 880-39851/1-A	Lab Control Sample	124	85
LCSD 880-39851/2-A	Lab Control Sample Dup	131 S1+	95
MB 880-39851/5-A	Method Blank	84	86
MB 880-39852/5-A	Method Blank	81	89

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)
890-3450-A-1-C MS	Matrix Spike	89	87
890-3450-A-1-D MSD	Matrix Spike Duplicate	89	87
890-3456-1	SS01	103	104
890-3456-2	SS02	102	117
LCS 880-39777/2-A	Lab Control Sample	96	107
LCSD 880-39777/3-A	Lab Control Sample Dup	99	110
MB 880-39777/1-A	Method Blank	98	110

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39851/5-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39851

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:04	11/22/22 01:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:04	11/22/22 01:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:04	11/22/22 01:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/22 16:04	11/22/22 01:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:04	11/22/22 01:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/22 16:04	11/22/22 01:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*11/17/22 16:04*	*11/22/22 01:39*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*11/17/22 16:04*	*11/22/22 01:39*	*1*

Lab Sample ID: LCS 880-39851/1-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39851

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07952		mg/Kg		80	70 - 130		
Toluene			0.100	0.08743		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08238		mg/Kg		82	70 - 130		
m-Xylene & p-Xylene			0.200	0.1818		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.08734		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: LCSD 880-39851/2-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39851

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08920		mg/Kg		89	70 - 130	11	35
Toluene			0.100	0.09501		mg/Kg		95	70 - 130	8	35
Ethylbenzene			0.100	0.08643		mg/Kg		86	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1928		mg/Kg		96	70 - 130	6	35
o-Xylene			0.100	0.09388		mg/Kg		94	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-21514-A-1-G MS
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39851

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0996	0.08119		mg/Kg		82	70 - 130		
Toluene	<0.00199	U	0.0996	0.09085		mg/Kg		91	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

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

Lab Sample ID: 880-21514-A-1-G MS
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39851

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0996	0.08672		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1893		mg/Kg		95	70 - 130
o-Xylene	<0.00199	U	0.0996	0.08757		mg/Kg		88	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*

Lab Sample ID: 880-21514-A-1-H MSD
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 39851

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07531		mg/Kg		75	70 - 130	8	35
Toluene	<0.00199	U	0.100	0.08477		mg/Kg		84	70 - 130	7	35
Ethylbenzene	<0.00199	U	0.100	0.08045		mg/Kg		80	70 - 130	8	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1756		mg/Kg		87	70 - 130	8	35
o-Xylene	<0.00199	U	0.100	0.08288		mg/Kg		83	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: MB 880-39852/5-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39852

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/17/22 16:07	11/21/22 12:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/17/22 16:07	11/21/22 12:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/17/22 16:07	11/21/22 12:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*11/17/22 16:07*	*11/21/22 12:20*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/17/22 16:07*	*11/21/22 12:20*	*1*

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

Lab Sample ID: MB 880-39777/1-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39777

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		11/17/22 08:58	11/18/22 19:50	1

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

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

Lab Sample ID: MB 880-39777/1-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39777

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*
o-Terphenyl	*110*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*

Lab Sample ID: LCS 880-39777/2-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	854.3		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	977.8		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 880-39777/3-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1009		mg/Kg		101	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	1035		mg/Kg		103	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-3450-A-1-C MS
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	955.2		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1084		mg/Kg		109	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

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

Lab Sample ID: 890-3450-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39876 — **Prep Batch: 39777**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	983.4		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1099		mg/Kg		110	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39826/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/20/22 20:11	1

Lab Sample ID: LCS 880-39826/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-39826/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	266.7		mg/Kg		107	90 - 110	2	20

Lab Sample ID: 890-3456-1 MS — **Client Sample ID: SS01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1130		249	1318	4	mg/Kg		77	90 - 110		

Lab Sample ID: 890-3456-1 MSD — **Client Sample ID: SS01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1130		249	1318	4	mg/Kg		77	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

GC VOA

Prep Batch: 39851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-1	SS01	Total/NA	Solid	5035	
890-3456-2	SS02	Total/NA	Solid	5035	
MB 880-39851/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39851/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39851/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21514-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-21514-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 39852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39852/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 40034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-1	SS01	Total/NA	Solid	8021B	39851
890-3456-2	SS02	Total/NA	Solid	8021B	39851
MB 880-39851/5-A	Method Blank	Total/NA	Solid	8021B	39851
MB 880-39852/5-A	Method Blank	Total/NA	Solid	8021B	39852
LCS 880-39851/1-A	Lab Control Sample	Total/NA	Solid	8021B	39851
LCSD 880-39851/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39851
880-21514-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	39851
880-21514-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39851

Analysis Batch: 40246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-1	SS01	Total/NA	Solid	Total BTEX	
890-3456-2	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-1	SS01	Total/NA	Solid	8015NM Prep	
890-3456-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-1	SS01	Total/NA	Solid	8015B NM	39777
890-3456-2	SS02	Total/NA	Solid	8015B NM	39777
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015B NM	39777
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39777
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39777
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	39777
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39777

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

GC Semi VOA

Analysis Batch: 40092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-1	SS01	Total/NA	Solid	8015 NM	
890-3456-2	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-1	SS01	Soluble	Solid	DI Leach	
890-3456-2	SS02	Soluble	Solid	DI Leach	
MB 880-39826/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3456-1 MS	SS01	Soluble	Solid	DI Leach	
890-3456-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 40018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-1	SS01	Soluble	Solid	300.0	39826
890-3456-2	SS02	Soluble	Solid	300.0	39826
MB 880-39826/1-A	Method Blank	Soluble	Solid	300.0	39826
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	300.0	39826
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39826
890-3456-1 MS	SS01	Soluble	Solid	300.0	39826
890-3456-1 MSD	SS01	Soluble	Solid	300.0	39826

Lab Chronicle

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

Client Sample ID: SS01

Date Collected: 11/14/22 12:30
Date Received: 11/14/22 15:40

Lab Sample ID: 890-3456-1
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			4.96 g	5 mL	39851	11/17/22 16:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40034	11/22/22 11:15	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40246	11/22/22 16:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			40092	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 02:21	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39826	11/17/22 14:23	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40018	11/20/22 20:28	CH	EET MID

Client Sample ID: SS02

Date Collected: 11/14/22 12:35
Date Received: 11/14/22 15:40

Lab Sample ID: 890-3456-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	39851	11/17/22 16:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40034	11/22/22 11:41	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40246	11/22/22 16:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			40092	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 02:43	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	39826	11/17/22 14:23	CH	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	40018	11/20/22 20:45	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3456-1
SDG: 03D20224110

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3456-1	SS01	Solid	11/14/22 12:30	11/14/22 15:40	0.2
890-3456-2	SS02	Solid	11/14/22 12:35	11/14/22 15:40	0.2

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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:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Hwy	Address:	3122 Nat'l Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-517-8437	Email:	jadams@ensolum.com, kjennings@ensolum.com

Work Order Comments

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

Project Name:	Dominator 0 Flowline	Turn Around	
Project Number:	03D2024110	☑ Routine ☐ Rush	
Project Location:	32.095391 -103.525872	Due Date:	
Sampler's Name:	Halcomata	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:	TWM007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2	
Total Containers:		Corrected Temperature:	2.0	

ANALYSIS REQUEST

Parameters: TPH, BTEX, Chlorides

890-3456 Chain of Custody

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Sample Comments
SS01	S	11-14-22	1230	.2'	C	1		
SS02	S	11-14-22	1235	.2'	C	1		

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

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	Halcomata	Cian Ulf	11.14.22 1546			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3456-1
SDG Number: 03D20224110

Login Number: 3456
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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3456-1
SDG Number: 03D20224110

Login Number: 3456
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/16/22 02:15 PM

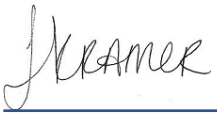
Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature 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	

Eurofins Carlsbad

Job Notes

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

Authorization



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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
705 W. Wadley
Suite 210
Midland Texas 79701

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JOB DESCRIPTION

Dominator 0 Flowline
SDG NUMBER 03D20224110

JOB NUMBER

890-3457-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Client: Ensolum
Project/Site: Dominator 0 Flowline

Laboratory Job ID: 890-3457-1
SDG: 03D20224110

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

Job ID: 890-3457-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3457-1

Receipt
The sample was received on 11/14/2022 3:40 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS03 (890-3457-1).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: SS03 (890-3457-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
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 880-39826 and 880-39826 and analytical batch 880-40018 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

Client Sample ID: SS03

Date Collected: 11/14/22 13:10
Date Received: 11/14/22 15:40
Sample Depth: 0.2

Lab Sample ID: 890-3457-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 20:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 20:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 20:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/17/22 16:07	11/21/22 20:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 20:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/17/22 16:07	11/21/22 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*11/17/22 16:07*	*11/21/22 20:57*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/17/22 16:07*	*11/21/22 20:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/22/22 16:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/21/22 10:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 03:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 03:05	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 03:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*11/17/22 08:58*	*11/19/22 03:05*	*1*
o-Terphenyl	*94*		*70 - 130*	*11/17/22 08:58*	*11/19/22 03:05*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**70.3**		5.00		mg/Kg			11/20/22 20:51	1

Surrogate Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

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)
880-21560-A-1-E MS	Matrix Spike	129	97
880-21560-A-1-F MSD	Matrix Spike Duplicate	122	91
890-3457-1	SS03	139 S1+	96
LCS 880-39852/1-A	Lab Control Sample	113	89
LCSD 880-39852/2-A	Lab Control Sample Dup	128	98
MB 880-39852/5-A	Method Blank	81	89

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)
890-3450-A-1-C MS	Matrix Spike	89	87
890-3450-A-1-D MSD	Matrix Spike Duplicate	89	87
890-3457-1	SS03	91	94
LCS 880-39777/2-A	Lab Control Sample	96	107
LCSD 880-39777/3-A	Lab Control Sample Dup	99	110
MB 880-39777/1-A	Method Blank	98	110

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39852/5-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39852

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:07	11/21/22 12:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/22 16:07	11/21/22 12:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*11/17/22 16:07*	*11/21/22 12:20*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/17/22 16:07*	*11/21/22 12:20*	*1*

Lab Sample ID: LCS 880-39852/1-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39852

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08813		mg/Kg		88	70 - 130		
Toluene			0.100	0.1012		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09551		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2098		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.09541		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-39852/2-A
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39852

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09764		mg/Kg		98	70 - 130	10	35
Toluene			0.100	0.09569		mg/Kg		96	70 - 130	6	35
Ethylbenzene			0.100	0.1017		mg/Kg		102	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2249		mg/Kg		112	70 - 130	7	35
o-Xylene			0.100	0.1048		mg/Kg		105	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-21560-A-1-E MS
Matrix: Solid
Analysis Batch: 40034

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39852

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.09549		mg/Kg		96	70 - 130		
Toluene	<0.00201	U	0.0996	0.1016		mg/Kg		102	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

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

Lab Sample ID: 880-21560-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40034 — **Prep Batch: 39852**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0996	0.09687		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2130		mg/Kg		107	70 - 130
o-Xylene	<0.00201	U	0.0996	0.09650		mg/Kg		97	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-21560-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40034 — **Prep Batch: 39852**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0994	0.08858		mg/Kg		89	70 - 130	8	35
Toluene	<0.00201	U	0.0994	0.09704		mg/Kg		98	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0994	0.09117		mg/Kg		92	70 - 130	6	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2020		mg/Kg		102	70 - 130	5	35
o-Xylene	<0.00201	U	0.0994	0.09189		mg/Kg		92	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

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

Lab Sample ID: MB 880-39777/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39876 — **Prep Batch: 39777**

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		11/17/22 08:58	11/18/22 19:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/17/22 08:58	11/18/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/17/22 08:58	11/18/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*
o-Terphenyl	*110*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*

Lab Sample ID: LCS 880-39777/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39876 — **Prep Batch: 39777**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	854.3		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	977.8		mg/Kg		98	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

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

Lab Sample ID: LCS 880-39777/2-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39777

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-39777/3-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1009		mg/Kg		101	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	1035		mg/Kg		103	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-3450-A-1-C MS
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	955.2		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1084		mg/Kg		109	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: 890-3450-A-1-D MSD
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 39777

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	983.4		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1099		mg/Kg		110	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	87		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39826/1-A
Matrix: Solid
Analysis Batch: 40018

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			11/20/22 20:11	1

Lab Sample ID: LCS 880-39826/2-A
Matrix: Solid
Analysis Batch: 40018

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-39826/3-A
Matrix: Solid
Analysis Batch: 40018

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	266.7		mg/Kg		107	90 - 110	2	20

Lab Sample ID: 890-3456-A-1-C MS
Matrix: Solid
Analysis Batch: 40018

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	1130		249	1318	4	mg/Kg		77	90 - 110		

Lab Sample ID: 890-3456-A-1-D MSD
Matrix: Solid
Analysis Batch: 40018

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	1130		249	1318	4	mg/Kg		77	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

GC VOA

Prep Batch: 39852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3457-1	SS03	Total/NA	Solid	5035	
MB 880-39852/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39852/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39852/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21560-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-21560-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3457-1	SS03	Total/NA	Solid	8021B	39852
MB 880-39852/5-A	Method Blank	Total/NA	Solid	8021B	39852
LCS 880-39852/1-A	Lab Control Sample	Total/NA	Solid	8021B	39852
LCSD 880-39852/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39852
880-21560-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	39852
880-21560-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39852

Analysis Batch: 40242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3457-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3457-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3457-1	SS03	Total/NA	Solid	8015B NM	39777
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015B NM	39777
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39777
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39777
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	39777
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39777

Analysis Batch: 40093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3457-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3457-1	SS03	Soluble	Solid	DI Leach	
MB 880-39826/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

HPLC/IC (Continued)

Leach Batch: 39826 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3456-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3457-1	SS03	Soluble	Solid	300.0	39826
MB 880-39826/1-A	Method Blank	Soluble	Solid	300.0	39826
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	300.0	39826
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39826
890-3456-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	39826
890-3456-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39826

Lab Chronicle

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

Client Sample ID: SS03

Date Collected: 11/14/22 13:10
Date Received: 11/14/22 15:40

Lab Sample ID: 890-3457-1

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	39852	11/17/22 16:07	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40034	11/21/22 20:57	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40242	11/22/22 16:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			40093	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 03:05	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	39826	11/17/22 14:23	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40018	11/20/22 20:51	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3457-1
SDG: 03D20224110

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3457-1	SS03	Solid	11/14/22 13:10	11/14/22 15:40	0.2

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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:	Josh Adams	Bill to: (if different)	Kaila Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 North Parks Hwy	Address:	3122 North Parks Hwy
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-517-8437	Email:	jadams@ensolum.com/ kjennings@ensolum.com

Work Order Comments

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

Project Name:	Dominator 6 Flowline	Turn Around	
Project Number:	03D2022410	☑ Routine ☐ Rush	
Project Location:	32.05391, -103.525572	Due Date:	
Sampler's Name:	Jaime Mata	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:	NM002
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

ANALYSIS REQUEST

Pres. Code

Parameters: TPH, BTEX, Chlorides

890-3457 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
NaHSO 4: NABIS
$Na_2S_2O_3$: NaSO 3
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Sample Comments
SS03	S	11-14-22	1310	.2'	C	1	

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

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	Jaime Mata	Cruz	11-14-22 1540			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3457-1
SDG Number: 03D20224110

Login Number: 3457
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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3457-1
SDG Number: 03D20224110

Login Number: 3457
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/16/22 02:15 PM

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	

Eurofins Carlsbad

Job Notes

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

Authorization

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11/22/2022 3:47:51 PM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
705 W. Wadley
Suite 210
Midland Texas 79701

Generated 11/23/2022 1:48:11 PM

JOB DESCRIPTION

Dominator 0 Flowline
SDG NUMBER 03D20224110

JOB NUMBER

890-3458-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Client: Ensolum
Project/Site: Dominator 0 Flowline

Laboratory Job ID: 890-3458-1
SDG: 03D20224110

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

Job ID: 890-3458-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3458-1

Receipt
The sample was received on 11/14/2022 3:40 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-3458-1).

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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39826 and 880-39826 and analytical batch 880-40018 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

Client Sample ID: SS04

Date Collected: 11/14/22 12:45
Date Received: 11/14/22 15:40
Sample Depth: 0.2

Lab Sample ID: 890-3458-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/22/22 09:18	11/22/22 17:03	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/22/22 09:18	11/22/22 17:03	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/22/22 09:18	11/22/22 17:03	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		11/22/22 09:18	11/22/22 17:03	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/22/22 09:18	11/22/22 17:03	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		11/22/22 09:18	11/22/22 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/22/22 09:18*	*11/22/22 17:03*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/22/22 09:18*	*11/22/22 17:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			11/23/22 13:56	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/21/22 10:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 03:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 03:26	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*11/17/22 08:58*	*11/19/22 03:26*	*1*
o-Terphenyl	*88*		*70 - 130*	*11/17/22 08:58*	*11/19/22 03:26*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.5**		5.03		mg/Kg			11/20/22 20:57	1

Surrogate Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

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)
880-21853-A-1-D MS	Matrix Spike	99	116
880-21853-A-1-E MSD	Matrix Spike Duplicate	96	116
890-3458-1	SS04	107	94
LCS 880-40183/1-A	Lab Control Sample	93	118
LCSD 880-40183/2-A	Lab Control Sample Dup	113	112
MB 880-40183/5-A	Method Blank	83	101

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)
890-3450-A-1-C MS	Matrix Spike	89	87
890-3450-A-1-D MSD	Matrix Spike Duplicate	89	87
890-3458-1	SS04	87	88
LCS 880-39777/2-A	Lab Control Sample	96	107
LCSD 880-39777/3-A	Lab Control Sample Dup	99	110
MB 880-39777/1-A	Method Blank	98	110

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-40183/5-A
Matrix: Solid
Analysis Batch: 40173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40183

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/22 09:18	11/22/22 10:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/22 09:18	11/22/22 10:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/22 09:18	11/22/22 10:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/22 09:18	11/22/22 10:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/22 09:18	11/22/22 10:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/22 09:18	11/22/22 10:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*11/22/22 09:18*	*11/22/22 10:52*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/22/22 09:18*	*11/22/22 10:52*	*1*

Lab Sample ID: LCS 880-40183/1-A
Matrix: Solid
Analysis Batch: 40173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40183

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09122		mg/Kg		91	70 - 130		
Toluene			0.100	0.08358		mg/Kg		84	70 - 130		
Ethylbenzene			0.100	0.08326		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1684		mg/Kg		84	70 - 130		
o-Xylene			0.100	0.08323		mg/Kg		83	70 - 130		

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

Lab Sample ID: LCSD 880-40183/2-A
Matrix: Solid
Analysis Batch: 40173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40183

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09438		mg/Kg		94	70 - 130	3	35
Toluene			0.100	0.09480		mg/Kg		95	70 - 130	13	35
Ethylbenzene			0.100	0.1007		mg/Kg		101	70 - 130	19	35
m-Xylene & p-Xylene			0.200	0.2160		mg/Kg		108	70 - 130	25	35
o-Xylene			0.100	0.1073		mg/Kg		107	70 - 130	25	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 880-21853-A-1-D MS
Matrix: Solid
Analysis Batch: 40173

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40183

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.101	0.09514		mg/Kg		94	70 - 130		
Toluene	<0.00199	U	0.101	0.08944		mg/Kg		89	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

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

Lab Sample ID: 880-21853-A-1-D MS
Matrix: Solid
Analysis Batch: 40173

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40183

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.101	0.08877		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1805		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.101	0.08821		mg/Kg		87	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: 880-21853-A-1-E MSD
Matrix: Solid
Analysis Batch: 40173

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40183

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.09257		mg/Kg		92	70 - 130	3	35
Toluene	<0.00199	U	0.101	0.08274		mg/Kg		82	70 - 130	8	35
Ethylbenzene	<0.00199	U	0.101	0.08172		mg/Kg		81	70 - 130	8	35
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1642		mg/Kg		81	70 - 130	9	35
o-Xylene	<0.00199	U	0.101	0.08054		mg/Kg		80	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

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

Lab Sample ID: MB 880-39777/1-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39777

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		11/17/22 08:58	11/18/22 19:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*
o-Terphenyl	*110*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*

Lab Sample ID: LCS 880-39777/2-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	854.3		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)			1000	977.8		mg/Kg		98	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

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

Lab Sample ID: LCS 880-39777/2-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39777

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-39777/3-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1009		mg/Kg		101	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	1035		mg/Kg		103	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-3450-A-1-C MS
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	955.2		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1084		mg/Kg		109	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: 890-3450-A-1-D MSD
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 39777

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	983.4		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1099		mg/Kg		110	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	87		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39826/1-A
Matrix: Solid
Analysis Batch: 40018

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			11/20/22 20:11	1

Lab Sample ID: LCS 880-39826/2-A
Matrix: Solid
Analysis Batch: 40018

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-39826/3-A
Matrix: Solid
Analysis Batch: 40018

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	266.7		mg/Kg		107	90 - 110	2	20

Lab Sample ID: 890-3456-A-1-C MS
Matrix: Solid
Analysis Batch: 40018

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	1130		249	1318	4	mg/Kg		77	90 - 110		

Lab Sample ID: 890-3456-A-1-D MSD
Matrix: Solid
Analysis Batch: 40018

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	1130		249	1318	4	mg/Kg		77	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

GC VOA

Analysis Batch: 40173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3458-1	SS04	Total/NA	Solid	8021B	40183
MB 880-40183/5-A	Method Blank	Total/NA	Solid	8021B	40183
LCS 880-40183/1-A	Lab Control Sample	Total/NA	Solid	8021B	40183
LCSD 880-40183/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40183
880-21853-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	40183
880-21853-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40183

Prep Batch: 40183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3458-1	SS04	Total/NA	Solid	5035	
MB 880-40183/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40183/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40183/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-21853-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-21853-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3458-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3458-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3458-1	SS04	Total/NA	Solid	8015B NM	39777
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015B NM	39777
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39777
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39777
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	39777
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39777

Analysis Batch: 40094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3458-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 39826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3458-1	SS04	Soluble	Solid	DI Leach	
MB 880-39826/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

HPLC/IC (Continued)

Leach Batch: 39826 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3456-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3456-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3458-1	SS04	Soluble	Solid	300.0	39826
MB 880-39826/1-A	Method Blank	Soluble	Solid	300.0	39826
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	300.0	39826
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39826
890-3456-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	39826
890-3456-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39826

Lab Chronicle

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

Client Sample ID: SS04

Date Collected: 11/14/22 12:45
Date Received: 11/14/22 15:40

Lab Sample ID: 890-3458-1

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			5.04 g	5 mL	40183	11/22/22 09:18	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40173	11/22/22 17:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40332	11/23/22 13:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			40094	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 03:26	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	39826	11/17/22 14:23	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40018	11/20/22 20:57	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3458-1
SDG: 03D20224110

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3458-1	SS04	Solid	11/14/22 12:45	11/14/22 15:40	0.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kaile Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Hwy	Address:	3122 Nat'l Parks Hwy
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	Carlsbad, NM, 88220
Phone:	303-517-8437	Email:	jadams@ensolum.com, kjennings@ensolum.com

Work Order Comments

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

Project Name:	Dominator D Flowline	Turn Around	☑ Routine ☐ Rush
Project Number:	03D0224110	Due Date:	
Project Location:	32.05391, -103.82.5572	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	J Falcomata		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TVM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH ✓	BTEX ✓	Chlorides ✓
S504	S	11-14-22	1745	.2'	C	1				

ANALYSIS REQUEST

890-3458 Chain of Custody

Preservative Codes

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

Sample Comments

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 J Falcomata		11.14.22 1540			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3458-1
SDG Number: 03D20224110

Login Number: 3458
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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3458-1
SDG Number: 03D20224110

Login Number: 3458
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/16/22 02:15 PM

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	

Eurofins Carlsbad

Job Notes

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

Authorization

Generated
11/23/2022 1:48:11 PM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Generated 11/28/2022 4:23:34 PM

JOB DESCRIPTION

Dominator 0 Flowline
SDG NUMBER 03D20224110

JOB NUMBER

890-3459-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

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

Authorization

Generated
11/28/2022 4:23:34 PM

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

Client: Ensolum
Project/Site: Dominator 0 Flowline

Laboratory Job ID: 890-3459-1
SDG: 03D20224110

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3459-1
Project/Site: Dominator 0 Flowline SDG: 03D20224110

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

Job ID: 890-3459-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3459-1

Receipt
The sample was received on 11/14/2022 3:40 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-3459-1).

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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39826 and 880-39826 and analytical batch 880-40018 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

Client Sample ID: SS05

Date Collected: 11/14/22 12:50
Date Received: 11/14/22 15:40
Sample Depth: 0.2

Lab Sample ID: 890-3459-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:04	11/24/22 12:12	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:04	11/24/22 12:12	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:04	11/24/22 12:12	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/22/22 15:04	11/24/22 12:12	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/22/22 15:04	11/24/22 12:12	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/22/22 15:04	11/24/22 12:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*210*	*S1+*	*70 - 130*	*11/22/22 15:04*	*11/24/22 12:12*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*11/22/22 15:04*	*11/24/22 12:12*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/28/22 15:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/21/22 10:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 03:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 03:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/19/22 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*11/17/22 08:58*	*11/19/22 03:48*	*1*
o-Terphenyl	*90*		*70 - 130*	*11/17/22 08:58*	*11/19/22 03:48*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**45.3**		5.05		mg/Kg			11/20/22 21:02	1

Surrogate Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

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)
890-3459-1	SS05	210 S1+	82
890-3479-A-1-G MS	Matrix Spike	173 S1+	76
890-3479-A-1-H MSD	Matrix Spike Duplicate	180 S1+	77
LCS 880-40225/1-A	Lab Control Sample	192 S1+	87
LCSD 880-40225/2-A	Lab Control Sample Dup	189 S1+	87
MB 880-39856/5-A	Method Blank	102	76
MB 880-40225/5-A	Method Blank	114	74

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)
890-3450-A-1-C MS	Matrix Spike	89	87
890-3450-A-1-D MSD	Matrix Spike Duplicate	89	87
890-3459-1	SS05	87	90
LCS 880-39777/2-A	Lab Control Sample	96	107
LCSD 880-39777/3-A	Lab Control Sample Dup	99	110
MB 880-39777/1-A	Method Blank	98	110

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39856/5-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39856

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/22 16:28	11/23/22 13:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*11/17/22 16:28*	*11/23/22 13:21*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*11/17/22 16:28*	*11/23/22 13:21*	*1*

Lab Sample ID: MB 880-40225/5-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40225

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/22 15:04	11/24/22 02:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*11/22/22 15:04*	*11/24/22 02:38*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*11/22/22 15:04*	*11/24/22 02:38*	*1*

Lab Sample ID: LCS 880-40225/1-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40225

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09860		mg/Kg		99	70 - 130		
Toluene			0.100	0.1003		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.09008		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1992		mg/Kg		100	70 - 130		
o-Xylene			0.100	0.09545		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*192*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: LCSD 880-40225/2-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40225

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1116		mg/Kg		112	70 - 130	12	35

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

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

Lab Sample ID: LCSD 880-40225/2-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40225

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1072		mg/Kg		107	70 - 130	7	35
Ethylbenzene			0.100	0.1083		mg/Kg		108	70 - 130	18	35
m-Xylene & p-Xylene			0.200	0.2364		mg/Kg		118	70 - 130	17	35
o-Xylene			0.100	0.1119		mg/Kg		112	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*189*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 890-3479-A-1-G MS
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.09677		mg/Kg		96	70 - 130
Toluene	<0.00202	U	0.101	0.09986		mg/Kg		99	70 - 130
Ethylbenzene	<0.00202	U	0.101	0.09120		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.202	0.2022		mg/Kg		99	70 - 130
o-Xylene	<0.00202	U	0.101	0.09456		mg/Kg		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*173*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: 890-3479-A-1-H MSD
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0994	0.1022		mg/Kg		103	70 - 130	5	35
Toluene	<0.00202	U	0.0994	0.1022		mg/Kg		103	70 - 130	2	35
Ethylbenzene	<0.00202	U	0.0994	0.09353		mg/Kg		94	70 - 130	3	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.2068		mg/Kg		103	70 - 130	2	35
o-Xylene	<0.00202	U	0.0994	0.09632		mg/Kg		97	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*180*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*

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

Lab Sample ID: MB 880-39777/1-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39777

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		11/17/22 08:58	11/18/22 19:50	1

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QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

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

Lab Sample ID: MB 880-39777/1-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39777

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*
o-Terphenyl	*110*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*

Lab Sample ID: LCS 880-39777/2-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	854.3		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	977.8		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 880-39777/3-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1009		mg/Kg		101	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	1035		mg/Kg		103	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-3450-A-1-C MS
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	955.2		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1084		mg/Kg		109	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

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

Lab Sample ID: 890-3450-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39876 — **Prep Batch: 39777**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	983.4		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1099		mg/Kg		110	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39826/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/20/22 20:11	1

Lab Sample ID: LCS 880-39826/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-39826/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	266.7		mg/Kg		107	90 - 110	2	20

Lab Sample ID: 890-3456-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1130		249	1318	4	mg/Kg		77	90 - 110		

Lab Sample ID: 890-3456-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1130		249	1318	4	mg/Kg		77	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

GC VOA

Prep Batch: 39856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39856/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 40225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3459-1	SS05	Total/NA	Solid	5035	
MB 880-40225/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40225/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40225/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3479-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-3479-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3459-1	SS05	Total/NA	Solid	8021B	40225
MB 880-39856/5-A	Method Blank	Total/NA	Solid	8021B	39856
MB 880-40225/5-A	Method Blank	Total/NA	Solid	8021B	40225
LCS 880-40225/1-A	Lab Control Sample	Total/NA	Solid	8021B	40225
LCSD 880-40225/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40225
890-3479-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	40225
890-3479-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40225

Analysis Batch: 40497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3459-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3459-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3459-1	SS05	Total/NA	Solid	8015B NM	39777
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015B NM	39777
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39777
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39777
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	39777
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39777

Analysis Batch: 40095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3459-1	SS05	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

HPLC/IC

Leach Batch: 39826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3459-1	SS05	Soluble	Solid	DI Leach	
MB 880-39826/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3456-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3456-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3459-1	SS05	Soluble	Solid	300.0	39826
MB 880-39826/1-A	Method Blank	Soluble	Solid	300.0	39826
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	300.0	39826
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39826
890-3456-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	39826
890-3456-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39826

Lab Chronicle

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

Client Sample ID: SS05

Date Collected: 11/14/22 12:50
Date Received: 11/14/22 15:40

Lab Sample ID: 890-3459-1

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	40225	11/22/22 15:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40264	11/24/22 12:12	EL	EET MID
Total/NA	Analysis	Total BTEX		1			40497	11/28/22 15:38	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40095	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 03:48	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	39826	11/17/22 14:23	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40018	11/20/22 21:02	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3459-1
SDG: 03D20224110

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3459-1	SS05	Solid	11/14/22 12:50	11/14/22 15:40	0.2

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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:	Josh Adams	Bill to: (if different)	K Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-517-8437	Email:	jadams@ensolum.com, kjennings@ensolum.com

Work Order Comments

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

Project Name:	Dominator 10 Flowline	Turn Around	☑ Routine ☐ Rush
Project Number:	03D 2024110	Due Date:	
Project Location:	32.095391, -103.525877	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	J Salomata		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)
Samples Received Intact:	(Yes) No	Thermometer ID:	IR007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH	BTEX	Chlorides
SS05	S	11-14-22	1750	.2'	C	1		✓	✓	✓

890-3459 Chain of Custody

Preservative Codes

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

Sample Comments

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 J Salomata	Chad Cyp	11.14.22 1540			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3459-1
SDG Number: 03D20224110

Login Number: 3459
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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3459-1
SDG Number: 03D20224110

Login Number: 3459
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/16/22 02:15 PM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Generated 11/28/2022 4:23:34 PM

JOB DESCRIPTION

Dominator 0 Flowline
SDG NUMBER 03D20224110

JOB NUMBER

890-3460-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

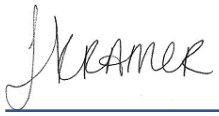
See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

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

Authorization



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11/28/2022 4:23:34 PM

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

Client: Ensolum
Project/Site: Dominator 0 Flowline

Laboratory Job ID: 890-3460-1
SDG: 03D20224110

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

Job ID: 890-3460-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3460-1

Receipt
The sample was received on 11/14/2022 3:40 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-3460-1).

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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-39826 and 880-39826 and analytical batch 880-40018 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

Client Sample ID: SS06

Date Collected: 11/14/22 12:55
Date Received: 11/14/22 15:40
Sample Depth: 0.2

Lab Sample ID: 890-3460-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 12:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 12:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 12:38	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/22/22 15:04	11/24/22 12:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 12:38	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/22/22 15:04	11/24/22 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*174*	*S1+*	*70 - 130*	*11/22/22 15:04*	*11/24/22 12:38*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*11/22/22 15:04*	*11/24/22 12:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/28/22 15:38	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/21/22 10:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 04:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 04:10	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/17/22 08:58	11/19/22 04:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*11/17/22 08:58*	*11/19/22 04:10*	*1*
o-Terphenyl	*88*		*70 - 130*	*11/17/22 08:58*	*11/19/22 04:10*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92.9**		5.02		mg/Kg			11/20/22 21:19	1

Surrogate Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

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)
890-3460-1	SS06	174 S1+	74
890-3479-A-1-G MS	Matrix Spike	173 S1+	76
890-3479-A-1-H MSD	Matrix Spike Duplicate	180 S1+	77
LCS 880-40225/1-A	Lab Control Sample	192 S1+	87
LCSD 880-40225/2-A	Lab Control Sample Dup	189 S1+	87
MB 880-39856/5-A	Method Blank	102	76
MB 880-40225/5-A	Method Blank	114	74

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)
890-3450-A-1-C MS	Matrix Spike	89	87
890-3450-A-1-D MSD	Matrix Spike Duplicate	89	87
890-3460-1	SS06	84	88
LCS 880-39777/2-A	Lab Control Sample	96	107
LCSD 880-39777/3-A	Lab Control Sample Dup	99	110
MB 880-39777/1-A	Method Blank	98	110

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39856/5-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39856

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/17/22 16:28	11/23/22 13:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/17/22 16:28	11/23/22 13:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*11/17/22 16:28*	*11/23/22 13:21*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*11/17/22 16:28*	*11/23/22 13:21*	*1*

Lab Sample ID: MB 880-40225/5-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40225

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/22/22 15:04	11/24/22 02:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/22/22 15:04	11/24/22 02:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*11/22/22 15:04*	*11/24/22 02:38*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*11/22/22 15:04*	*11/24/22 02:38*	*1*

Lab Sample ID: LCS 880-40225/1-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40225

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09860		mg/Kg		99	70 - 130		
Toluene			0.100	0.1003		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.09008		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1992		mg/Kg		100	70 - 130		
o-Xylene			0.100	0.09545		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*192*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: LCSD 880-40225/2-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40225

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1116		mg/Kg		112	70 - 130	12	35

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

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

Lab Sample ID: LCSD 880-40225/2-A
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40225

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1072		mg/Kg		107	70 - 130	7	35
Ethylbenzene			0.100	0.1083		mg/Kg		108	70 - 130	18	35
m-Xylene & p-Xylene			0.200	0.2364		mg/Kg		118	70 - 130	17	35
o-Xylene			0.100	0.1119		mg/Kg		112	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*189*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 890-3479-A-1-G MS
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.09677		mg/Kg		96	70 - 130
Toluene	<0.00202	U	0.101	0.09986		mg/Kg		99	70 - 130
Ethylbenzene	<0.00202	U	0.101	0.09120		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.202	0.2022		mg/Kg		99	70 - 130
o-Xylene	<0.00202	U	0.101	0.09456		mg/Kg		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*173*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*

Lab Sample ID: 890-3479-A-1-H MSD
Matrix: Solid
Analysis Batch: 40264

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0994	0.1022		mg/Kg		103	70 - 130	5	35
Toluene	<0.00202	U	0.0994	0.1022		mg/Kg		103	70 - 130	2	35
Ethylbenzene	<0.00202	U	0.0994	0.09353		mg/Kg		94	70 - 130	3	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.2068		mg/Kg		103	70 - 130	2	35
o-Xylene	<0.00202	U	0.0994	0.09632		mg/Kg		97	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*180*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*

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

Lab Sample ID: MB 880-39777/1-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39777

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		11/17/22 08:58	11/18/22 19:50	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

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

Lab Sample ID: MB 880-39777/1-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 39777

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/17/22 08:58	11/18/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*
o-Terphenyl	*110*		*70 - 130*	*11/17/22 08:58*	*11/18/22 19:50*	*1*

Lab Sample ID: LCS 880-39777/2-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	854.3		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	977.8		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 880-39777/3-A
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 39777

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1009		mg/Kg		101	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	1035		mg/Kg		103	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-3450-A-1-C MS
Matrix: Solid
Analysis Batch: 39876

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 39777

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	955.2		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1084		mg/Kg		109	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

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

Lab Sample ID: 890-3450-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 39876 — **Prep Batch: 39777**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	983.4		mg/Kg		97	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1099		mg/Kg		110	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39826/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/20/22 20:11	1

Lab Sample ID: LCS 880-39826/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-39826/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	266.7		mg/Kg		107	90 - 110	2	20

Lab Sample ID: 890-3456-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1130		249	1318	4	mg/Kg		77	90 - 110		

Lab Sample ID: 890-3456-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 40018

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1130		249	1318	4	mg/Kg		77	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

GC VOA

Prep Batch: 39856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-39856/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 40225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3460-1	SS06	Total/NA	Solid	5035	
MB 880-40225/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40225/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40225/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3479-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
890-3479-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40264

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3460-1	SS06	Total/NA	Solid	8021B	40225
MB 880-39856/5-A	Method Blank	Total/NA	Solid	8021B	39856
MB 880-40225/5-A	Method Blank	Total/NA	Solid	8021B	40225
LCS 880-40225/1-A	Lab Control Sample	Total/NA	Solid	8021B	40225
LCSD 880-40225/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40225
890-3479-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	40225
890-3479-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40225

Analysis Batch: 40498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3460-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 39777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3460-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 39876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3460-1	SS06	Total/NA	Solid	8015B NM	39777
MB 880-39777/1-A	Method Blank	Total/NA	Solid	8015B NM	39777
LCS 880-39777/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39777
LCSD 880-39777/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39777
890-3450-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	39777
890-3450-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39777

Analysis Batch: 40096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3460-1	SS06	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

HPLC/IC

Leach Batch: 39826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3460-1	SS06	Soluble	Solid	DI Leach	
MB 880-39826/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3456-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3456-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3460-1	SS06	Soluble	Solid	300.0	39826
MB 880-39826/1-A	Method Blank	Soluble	Solid	300.0	39826
LCS 880-39826/2-A	Lab Control Sample	Soluble	Solid	300.0	39826
LCSD 880-39826/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39826
890-3456-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	39826
890-3456-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	39826

Lab Chronicle

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

Client Sample ID: SS06

Date Collected: 11/14/22 12:55
Date Received: 11/14/22 15:40

Lab Sample ID: 890-3460-1

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			4.99 g	5 mL	40225	11/22/22 15:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40264	11/24/22 12:38	EL	EET MID
Total/NA	Analysis	Total BTEX		1			40498	11/28/22 15:38	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40096	11/21/22 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39777	11/17/22 08:58	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39876	11/19/22 04:10	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	39826	11/17/22 14:23	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	40018	11/20/22 21:19	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

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: Dominator 0 Flowline

Job ID: 890-3460-1
SDG: 03D20224110

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3460-1	SS06	Solid	11/14/22 12:55	11/14/22 15:40	0.2

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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:	Josh adams	Bill to: (if different)	kjennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Hwy	Address:	3122 nat'l Parks Hwy
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	Carlsbad, NM, 88220
Phone:	303-517-8437	Email:	jadams@ensolum.com, kjennings@ensolum.com

Work Order Comments

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

Project Name:	Dominator 2 Flowline	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024110	Due Date:	
Project Location:	32.09539, -103.525872	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Jfalcomata		
PO #:			

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code
SS06	S	11-14-22	1155	.2'	C	1	

Parameters: TPH ✓ BTEX ✓ Chlorides ✓

ANALYSIS REQUEST

890-3460 Chain of Custody

Preservative Codes

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

Sample Comments

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	Jfalcomata		11-14-22 1540	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3460-1
SDG Number: 03D20224110

Login Number: 3460
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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3460-1
SDG Number: 03D20224110

Login Number: 3460
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/16/22 02:15 PM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 12/27/2022 8:57:51 AM

JOB DESCRIPTION

Dominator Fed 25 "0"
SDG NUMBER 03D2024110

JOB NUMBER

890-3615-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

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

Authorization

Generated
12/27/2022 8:57:51 AM

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

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Laboratory Job ID: 890-3615-1
SDG: 03D2024110

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Qualifiers

GC VOA

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

GC Semi VOA

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

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: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Job ID: 890-3615-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3615-1

Receipt
The samples were received on 12/9/2022 3:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-3615-1), FS02 (890-3615-2), FS03 (890-3615-3) and FS04 (890-3615-4).

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-41982/5) and (LCSD 880-41926/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-41926 and analytical batch 880-41982 contained Gasoline Range Organics (GRO)-C6-C10 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.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-41926 and analytical batch 880-41982 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-41926 and analytical batch 880-41982 was outside control limits. Sample non-homogeneity is suspected.

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

HPLC/IC
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: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Client Sample ID: FS01

Lab Sample ID: 890-3615-1
Matrix: Solid
Date Collected: 12/09/22 10:00
Date Received: 12/09/22 15:10
Sample Depth: 12

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/22/22 09:05	12/23/22 13:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/22/22 09:05	12/23/22 13:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/22/22 09:05	12/23/22 13:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/22/22 09:05	12/23/22 13:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/22/22 09:05	12/23/22 13:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/22/22 09:05	12/23/22 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*12/22/22 09:05*	*12/23/22 13:40*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*12/22/22 09:05*	*12/23/22 13:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/26/22 16:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/16/22 14:51	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	50.0		mg/Kg		12/15/22 14:18	12/16/22 11:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		12/15/22 14:18	12/16/22 11:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/15/22 14:18	12/16/22 11:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*12/15/22 14:18*	*12/16/22 11:06*	*1*
o-Terphenyl	*100*		*70 - 130*	*12/15/22 14:18*	*12/16/22 11:06*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/Kg			12/20/22 06:33	1

Client Sample ID: FS02

Lab Sample ID: 890-3615-2
Matrix: Solid
Date Collected: 12/09/22 12:00
Date Received: 12/09/22 15:10
Sample Depth: 12

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/22/22 09:05	12/23/22 14:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/22/22 09:05	12/23/22 14:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/22/22 09:05	12/23/22 14:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/22/22 09:05	12/23/22 14:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/22/22 09:05	12/23/22 14:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/22/22 09:05	12/23/22 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*12/22/22 09:05*	*12/23/22 14:00*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Client Sample ID: FS02

Date Collected: 12/09/22 12:00
Date Received: 12/09/22 15:10
Sample Depth: 12

Lab Sample ID: 890-3615-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*12/22/22 09:05*	*12/23/22 14:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/26/22 16:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/16/22 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/15/22 14:18	12/16/22 15:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		12/15/22 14:18	12/16/22 15:06	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/15/22 14:18	12/16/22 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*12/15/22 14:18*	*12/16/22 15:06*	*1*
o-Terphenyl	*105*		*70 - 130*	*12/15/22 14:18*	*12/16/22 15:06*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.5**		4.95	mg/Kg			12/20/22 06:39	1

Client Sample ID: FS03

Date Collected: 12/09/22 12:05
Date Received: 12/09/22 15:10
Sample Depth: 12

Lab Sample ID: 890-3615-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:05	12/23/22 14:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:05	12/23/22 14:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:05	12/23/22 14:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/22/22 09:05	12/23/22 14:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/22/22 09:05	12/23/22 14:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/22/22 09:05	12/23/22 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*12/22/22 09:05*	*12/23/22 14:21*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*12/22/22 09:05*	*12/23/22 14:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			12/26/22 16:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/19/22 15:03	1

Client Sample Results

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Client Sample ID: FS03

Lab Sample ID: 890-3615-3
Matrix: Solid
Date Collected: 12/09/22 12:05
Date Received: 12/09/22 15:10
Sample Depth: 12

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/15/22 14:18	12/16/22 15:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		12/15/22 14:18	12/16/22 15:49	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/15/22 14:18	12/16/22 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*12/15/22 14:18*	*12/16/22 15:49*	*1*
o-Terphenyl	*106*		*70 - 130*	*12/15/22 14:18*	*12/16/22 15:49*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167		5.03		mg/Kg			12/20/22 06:58	1

Client Sample ID: FS04

Lab Sample ID: 890-3615-4
Matrix: Solid
Date Collected: 12/09/22 12:10
Date Received: 12/09/22 15:10
Sample Depth: 12

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/22/22 09:05	12/23/22 14:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/22/22 09:05	12/23/22 14:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/22/22 09:05	12/23/22 14:41	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/22/22 09:05	12/23/22 14:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/22/22 09:05	12/23/22 14:41	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/22/22 09:05	12/23/22 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*12/22/22 09:05*	*12/23/22 14:41*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*12/22/22 09:05*	*12/23/22 14:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			12/26/22 16:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/19/22 15:03	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/15/22 14:18	12/16/22 16:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		12/15/22 14:18	12/16/22 16:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/15/22 14:18	12/16/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*12/15/22 14:18*	*12/16/22 16:12*	*1*
o-Terphenyl	*114*		*70 - 130*	*12/15/22 14:18*	*12/16/22 16:12*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Client Sample ID: FS04
Date Collected: 12/09/22 12:10
Date Received: 12/09/22 15:10
Sample Depth: 12

Lab Sample ID: 890-3615-4
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.7		5.01		mg/Kg			12/20/22 07:05	1

Surrogate Summary

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
890-3615-1	FS01	92	103										
890-3615-2	FS02	105	94										
890-3615-3	FS03	107	93										
890-3615-4	FS04	119	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)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-3615-1	FS01	100	100										
890-3615-1 MS	FS01	109	98										
890-3615-1 MSD	FS01	105	86										
890-3615-2	FS02	108	105										
890-3615-3	FS03	112	106										
890-3615-4	FS04	122	114										
LCS 880-41926/2-A	Lab Control Sample	98	111										
LCSD 880-41926/3-A	Lab Control Sample Dup	128	134 S1+										
MB 880-41926/1-A	Method Blank	112	115										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

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

Lab Sample ID: MB 880-41926/1-A
Matrix: Solid
Analysis Batch: 41982

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41926

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		12/15/22 14:18	12/16/22 08:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/15/22 14:18	12/16/22 08:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/15/22 14:18	12/16/22 08:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*12/15/22 14:18*	*12/16/22 08:33*	*1*
o-Terphenyl	*115*		*70 - 130*	*12/15/22 14:18*	*12/16/22 08:33*	*1*

Lab Sample ID: LCS 880-41926/2-A
Matrix: Solid
Analysis Batch: 41982

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41926

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	918.4		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	903.8		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

Lab Sample ID: LCSD 880-41926/3-A
Matrix: Solid
Analysis Batch: 41982

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 41926

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1055		mg/Kg		105	70 - 130	14	20
Diesel Range Organics (Over C10-C28)			1000	1147	*1	mg/Kg		115	70 - 130	24	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*128*		*70 - 130*
o-Terphenyl	*134*	*S1+*	*70 - 130*

Lab Sample ID: 890-3615-1 MS
Matrix: Solid
Analysis Batch: 41982

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 41926

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	999	1283		mg/Kg		128	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U *1	999	1096		mg/Kg		110	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

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

Lab Sample ID: 890-3615-1 MS
Matrix: Solid
Analysis Batch: 41982

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 41926

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-3615-1 MSD
Matrix: Solid
Analysis Batch: 41982

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 41926

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F2	997	988.5	F2	mg/Kg		99	70 - 130	26	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	997	942.5		mg/Kg		95	70 - 130	15	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	86		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-41754/1-A
Matrix: Solid
Analysis Batch: 42164

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			12/20/22 05:41	1

Lab Sample ID: LCS 880-41754/2-A
Matrix: Solid
Analysis Batch: 42164

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	274.4		mg/Kg		110	90 - 110		

Lab Sample ID: LCSD 880-41754/3-A
Matrix: Solid
Analysis Batch: 42164

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	276.0		mg/Kg		110	90 - 110	1	20

Lab Sample ID: 880-22579-A-1-G MS
Matrix: Solid
Analysis Batch: 42164

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	547		250	781.5		mg/Kg		94	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-22579-A-1-H MSD
Matrix: Solid
Analysis Batch: 42164

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	547		250	777.4		mg/Kg		92	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

GC VOA

Analysis Batch: 42465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3615-1	FS01	Total/NA	Solid	8021B	42482
890-3615-2	FS02	Total/NA	Solid	8021B	42482
890-3615-3	FS03	Total/NA	Solid	8021B	42482
890-3615-4	FS04	Total/NA	Solid	8021B	42482

Prep Batch: 42482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3615-1	FS01	Total/NA	Solid	5035	
890-3615-2	FS02	Total/NA	Solid	5035	
890-3615-3	FS03	Total/NA	Solid	5035	
890-3615-4	FS04	Total/NA	Solid	5035	

Analysis Batch: 42617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3615-1	FS01	Total/NA	Solid	Total BTEX	
890-3615-2	FS02	Total/NA	Solid	Total BTEX	
890-3615-3	FS03	Total/NA	Solid	Total BTEX	
890-3615-4	FS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 41926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3615-1	FS01	Total/NA	Solid	8015NM Prep	
890-3615-2	FS02	Total/NA	Solid	8015NM Prep	
890-3615-3	FS03	Total/NA	Solid	8015NM Prep	
890-3615-4	FS04	Total/NA	Solid	8015NM Prep	
MB 880-41926/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-41926/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-41926/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3615-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-3615-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 41982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3615-1	FS01	Total/NA	Solid	8015B NM	41926
890-3615-2	FS02	Total/NA	Solid	8015B NM	41926
890-3615-3	FS03	Total/NA	Solid	8015B NM	41926
890-3615-4	FS04	Total/NA	Solid	8015B NM	41926
MB 880-41926/1-A	Method Blank	Total/NA	Solid	8015B NM	41926
LCS 880-41926/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	41926
LCSD 880-41926/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	41926
890-3615-1 MS	FS01	Total/NA	Solid	8015B NM	41926
890-3615-1 MSD	FS01	Total/NA	Solid	8015B NM	41926

Analysis Batch: 42053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3615-1	FS01	Total/NA	Solid	8015 NM	
890-3615-2	FS02	Total/NA	Solid	8015 NM	
890-3615-3	FS03	Total/NA	Solid	8015 NM	
890-3615-4	FS04	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

HPLC/IC

Leach Batch: 41754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3615-1	FS01	Soluble	Solid	DI Leach	
890-3615-2	FS02	Soluble	Solid	DI Leach	
890-3615-3	FS03	Soluble	Solid	DI Leach	
890-3615-4	FS04	Soluble	Solid	DI Leach	
MB 880-41754/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-41754/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-41754/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-22579-A-1-G MS	Matrix Spike	Soluble	Solid	DI Leach	
880-22579-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 42164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3615-1	FS01	Soluble	Solid	300.0	41754
890-3615-2	FS02	Soluble	Solid	300.0	41754
890-3615-3	FS03	Soluble	Solid	300.0	41754
890-3615-4	FS04	Soluble	Solid	300.0	41754
MB 880-41754/1-A	Method Blank	Soluble	Solid	300.0	41754
LCS 880-41754/2-A	Lab Control Sample	Soluble	Solid	300.0	41754
LCSD 880-41754/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	41754
880-22579-A-1-G MS	Matrix Spike	Soluble	Solid	300.0	41754
880-22579-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	41754

Lab Chronicle

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Client Sample ID: FS01
Date Collected: 12/09/22 10:00
Date Received: 12/09/22 15:10

Lab Sample ID: 890-3615-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	42482	12/22/22 09:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42465	12/23/22 13:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42617	12/26/22 16:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42053	12/16/22 14:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	41926	12/15/22 14:18	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	41982	12/16/22 11:06	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	41754	12/13/22 13:03	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42164	12/20/22 06:33	CH	EET MID

Client Sample ID: FS02
Date Collected: 12/09/22 12:00
Date Received: 12/09/22 15:10

Lab Sample ID: 890-3615-2
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	42482	12/22/22 09:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42465	12/23/22 14:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42617	12/26/22 16:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42053	12/16/22 16:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	41926	12/15/22 14:18	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	41982	12/16/22 15:06	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	41754	12/13/22 13:03	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42164	12/20/22 06:39	CH	EET MID

Client Sample ID: FS03
Date Collected: 12/09/22 12:05
Date Received: 12/09/22 15:10

Lab Sample ID: 890-3615-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	42482	12/22/22 09:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42465	12/23/22 14:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42617	12/26/22 16:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42053	12/19/22 15:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	41926	12/15/22 14:18	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	41982	12/16/22 15:49	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	41754	12/13/22 13:03	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42164	12/20/22 06:58	CH	EET MID

Client Sample ID: FS04
Date Collected: 12/09/22 12:10
Date Received: 12/09/22 15:10

Lab Sample ID: 890-3615-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	42482	12/22/22 09:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42465	12/23/22 14:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42617	12/26/22 16:44	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Client Sample ID: FS04
Date Collected: 12/09/22 12:10
Date Received: 12/09/22 15:10

Lab Sample ID: 890-3615-4
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			42053	12/19/22 15:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	41926	12/15/22 14:18	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	41982	12/16/22 16:12	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	41754	12/13/22 13:03	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42164	12/20/22 07:05	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

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: Dominator Fed 25 "0"

Job ID: 890-3615-1
SDG: 03D2024110

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3615-1	FS01	Solid	12/09/22 10:00	12/09/22 15:10	12
890-3615-2	FS02	Solid	12/09/22 12:00	12/09/22 15:10	12
890-3615-3	FS03	Solid	12/09/22 12:05	12/09/22 15:10	12
890-3615-4	FS04	Solid	12/09/22 12:10	12/09/22 15:10	12

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com, jadams@ensolum.com

Work Order Comments

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

Project Name:	Dominator Fed 25"6"	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024110	Due Date:	
Project Location:	32.0453911, -103.5258672	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Julianna Falcomata		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	Thermo2	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.2	
Total Containers:		Corrected Temperature:	2.0	

ANALYSIS REQUEST

890-3615 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 Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
FS01	S	12-9-22	1000	6-12"	C	1	✓	✓	✓	nAPP2235729294
FS02	S	12-9-22	1200	12"	C	1	✓	✓	✓	
FS03	S	12-9-22	1205	12"	C	1	✓	✓	✓	
FS04	S	12-9-22	1210	12"	C	1	✓	✓	✓	

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

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

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		12.9.22 1510	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3615-1
SDG Number: 03D2024110

Login Number: 3615
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: 890-3615-1
SDG Number: 03D2024110

Login Number: 3615
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 12/13/22 11:24 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

From: Kalei Jennings
To: Josh Adams
Subject: FW: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 12/05/2022)
Date: Thursday, January 5, 2023 5:53:37 PM
Attachments: image006.png
image007.png
image008.png
image009.png

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Thursday, December 1, 2022 5:11 PM
To: Kalei Jennings <kjennings@ensolum.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Subject: RE: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 12/05/2022)

[**EXTERNAL EMAIL**]

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Thursday, December 1, 2022 4:01 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] ConocoPhillips Company- Sampling Notification (Week of 12/05/2022)

All,

On behalf of ConocoPhillips Company, we respectfully submit notification of sampling to be conducted at the below locations the week of 12/05/2022.

Redhead 31 Federal Com 1H/ NAPP2230442646
Bandit 15 Federal COM #2/ NAPP2231139799
Dominator O Flowline / napp2230729294
James A Waterflood / Incident Numbers NAB1912758567 and NAB1912759510

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

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 178500

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 178500
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	2/9/2023