ENSOLUM

November 7, 2022

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

Re: Closure Request
Federal 9 Com 001
Incident Number NAPP2218848721
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 site assessment and soil sampling activities performed at the Federal 9 Com 001 (Site; Figure 1). The purpose of the soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water on pad. The release was caused by lightning striking the produced water tank. Based on site assessment, excavation activities, and laboratory analytical results from soil sampling events, COG is reqesting closure for Incident Number NAPP2218848721.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit B, Section 9, Township 24 South, Range 34 East, in Lea County, New Mexico (32.2375° N, 103.4726° W) and is associated with oil and gas exploration and production operations on privately owned surface managed by the Quail Ranch, LLC.

On July 4, 2022, lightning struck the produced water tank and caused the release of approximately 26.56 barrels (bbls) of produced water into the containment and onto the surrounding well pad. Approximately 0.284 bbls of produced water were recovered as a fire burned off most of the standing fluid. COG reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) on July 6, 2022 and submitted a Release Notification Form C-141 (Form C-141) on July 7, 2022. The release was assigned Incident Number NAPP2218848721.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to determine 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.

Depth to groundwater at the Site is estimated to be between 51 and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geologic Survey (USGS) permitted well 321402103275001, located approximately 2,960 southeast of the Site. The groundwater well has a reported depth to groundwater of 72 feet bgs and an unknown total depth. Ground surface elevation at the groundwater well location is 3,535 feet above mean sea level (amsl), which is approximately 20-feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well record are included in Appendix B

The closest continuously flowing or significant watercourse to the Site is an freshwater emergent wetland, 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
- Desiel Range Organics (DRO) – TPH + Gasoline Range Organics (GRO) - TPH: 1,000 mg/kg
- Chloride: 10,000 mg/kg

COG plans to reclaim this Site in the near future therefore, 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 NMAC 19.15.29.13.D (1).

INITIAL SITE ASSESSMENT ACTIVITIES

On July 11, 2022, Ensolum evaluated the release based on information provided on the Form C-141 and visual observations. Ensolum personnel found that the liner was damaged from the fire and soil staining was observed beneath the lined area. Ensolum collected soil samples SS01 through SS04 outside the release area from a depth of 0.5 feet bgs to confirm absence of impacted soil outside of the containment. On August 23, 2022, Ensolum personel returned to the Site to collect soil samples within the containment after the onsite equipment and liner were removed. A hand auger was used to advance a pothole and collect soil samples PH01 and PH01A from 0.2 feet and 1 foot bgs, respectively.

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

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

Laboratory analytical results for soil sample PH01 indicated at least one constituent was not compliant with the reclamation requiremnt for TPH. Laboratory analytical results for soil samples SS01 through SS04 and PH01A indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the reclamation requirement and the most stringent standards of Table I. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

EXCAVATION ACTIVITIES

On September 21, 2022, Ensolum oversaw the excavation of impacted soil from the release area as indicated by visible staining and laboratory analytical results from delineation soil sampling. Excavation activities were performed via hand shoveling and back-hoe to depths ranging from 0.5 feet to 2 feet bgs. To direct excavation activities, soil was field screened for VOCs and chloride. Photographic documentation is included in Appendix C.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor of the excavation. Due to the shallow depth of the excavation, soil from the sidewalls was incorporated into the floor samples. Excavation composite soil samples FS01 through FS10 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. The excavation extents and excavation soil samples locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 3.

Analytical results from confirmation soil samples FS05, FS07, FS08, and FS10 indicated concentations of TPH and/or chloride exceeded the NMOCD reclamation requirement. As a result, additional excavation in the vicinty of the four composite sample locations was completed on October 7, 2022. Follow-up confirmation soil samples FS05A, FS07A, FS08A, and FS10A were collected a depths ranging from 1-foot to 2-feet bgs to confirm residual impacts to soil had been adequately remediated. Similarly, analytical results from confirmation soil samples FS05A and FS07A indicated concentations of TPH exceeded the reclamation requirement and additional soil was removed from those areas. Confirmation soil samples FS05B and FS07B were collected at 1.25-feet and 1.75-feet bgs. Laboratory analytical results for excavation floor samples collected at the terminal depth of each composite soil sample location indicated all TPH and chloride concentrations were compliant with the reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

The total footprint of the excavation was approximately 1,900 square feet. A total of approximately 88 cubic yards of impacted 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 confirmation soil sample laboratory analytical results compliant with the reclamation requirement, excavation activities appear to have successfully remediated the produced water impacts 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 NAPP2218848721. 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

Kalei Jennings
Senior Scientist

Ashley Ager, PG
Program Director

cc: Charles Beauvais, COG Operating, LLC
Quail Ranch, LLC

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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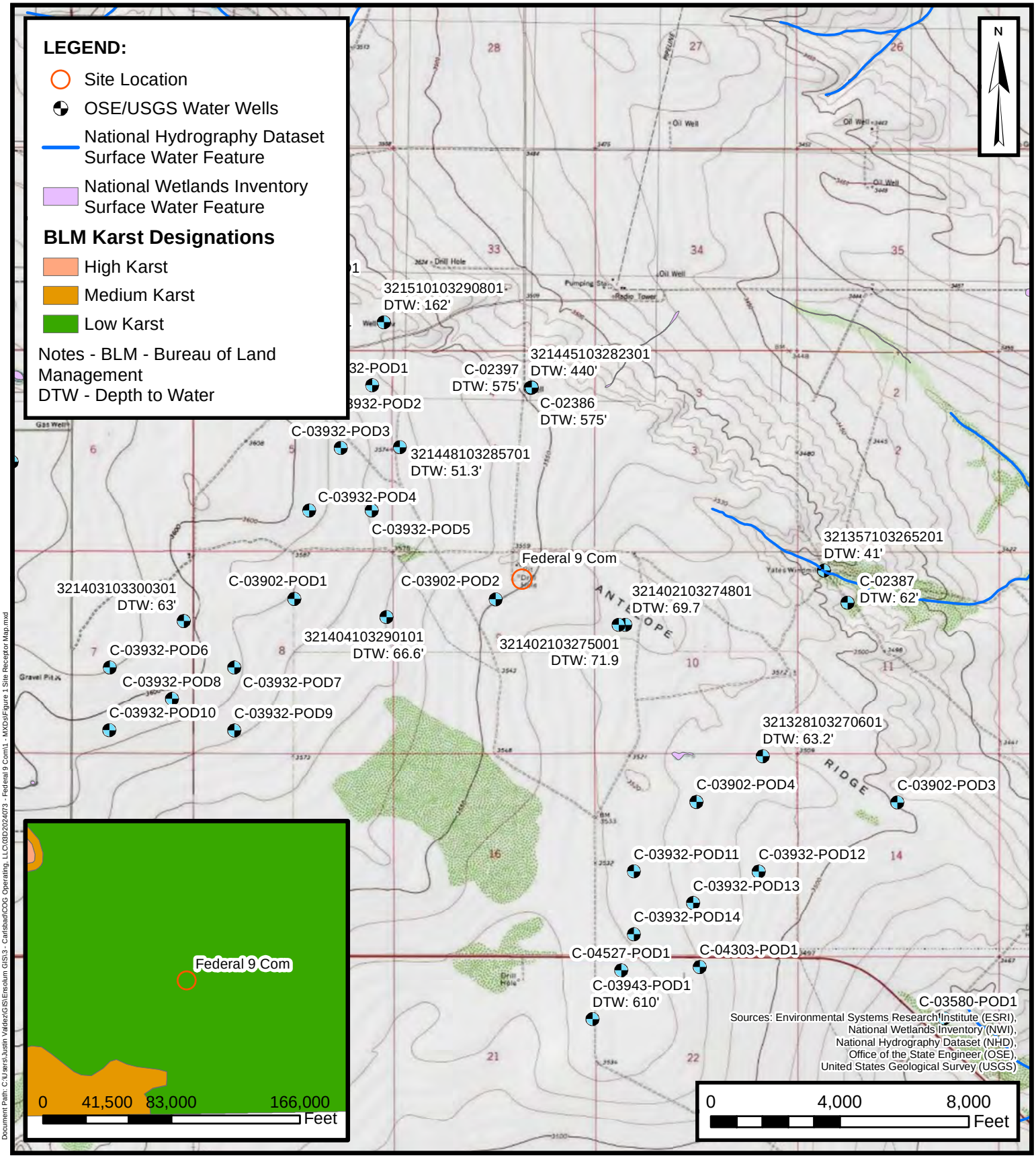
FIGURES



Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\3 - Carlsbad\COG Operating, LLC\03D2024073 - Federal 9 Com\1 - MXDs\Figure 1 Site Receptor Map.mxd

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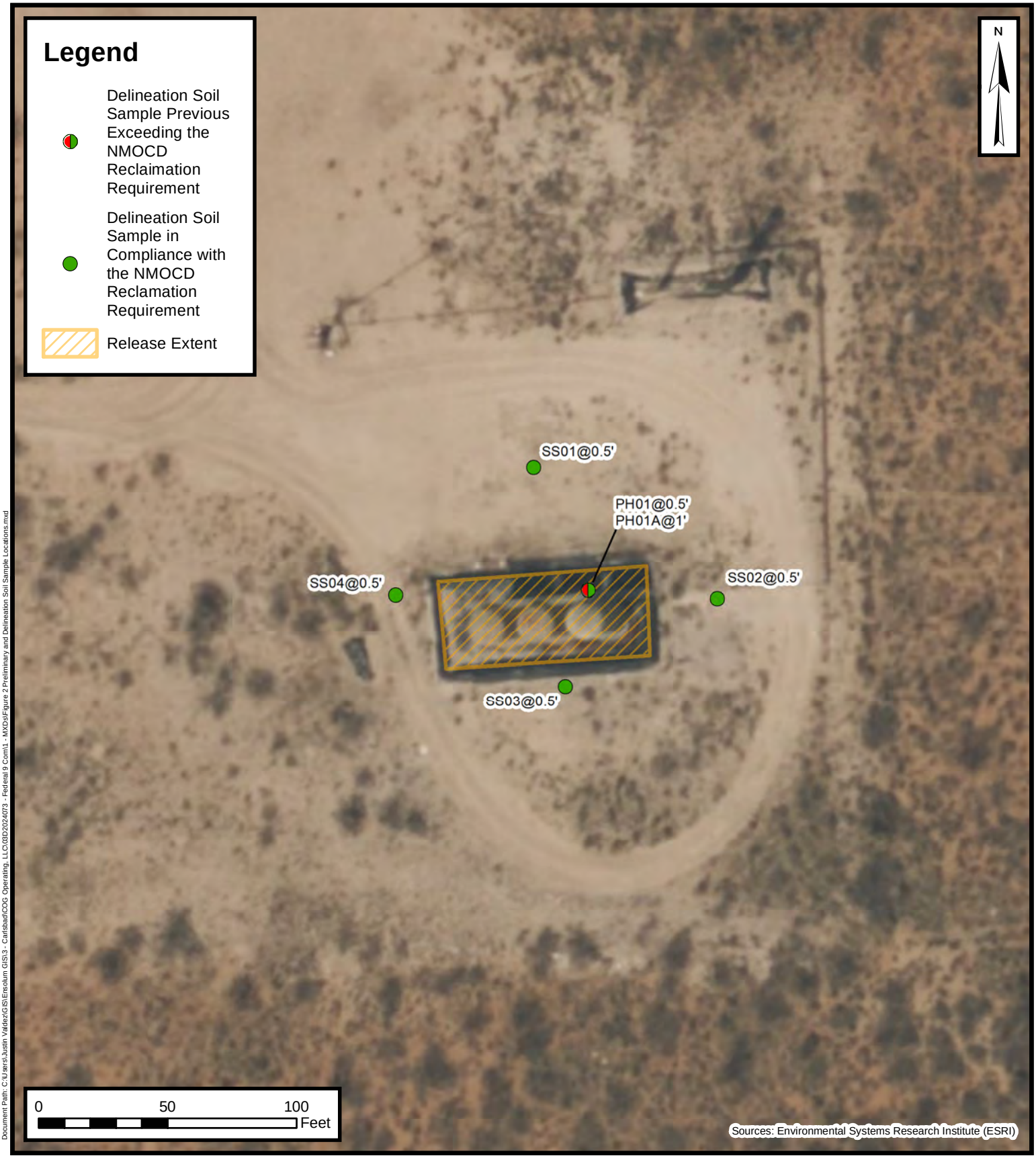
Environmental, Engineering and Hydrogeologic Consultants

Site Location Map

COG Operating, LLC
FEDERAL 9 COM 001
Incident Number: NAPP2218848721
Unit B, Sec 19 T26S R32E
Lea County, New Mexico

FIGURE

1



Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\3 - Carlsbad\COG Operating, LLC\03D2024073 - Federal 9 Com\1 - MXDs\Figure 2 Preliminary and Delineation Soil Sample Locations.mxd

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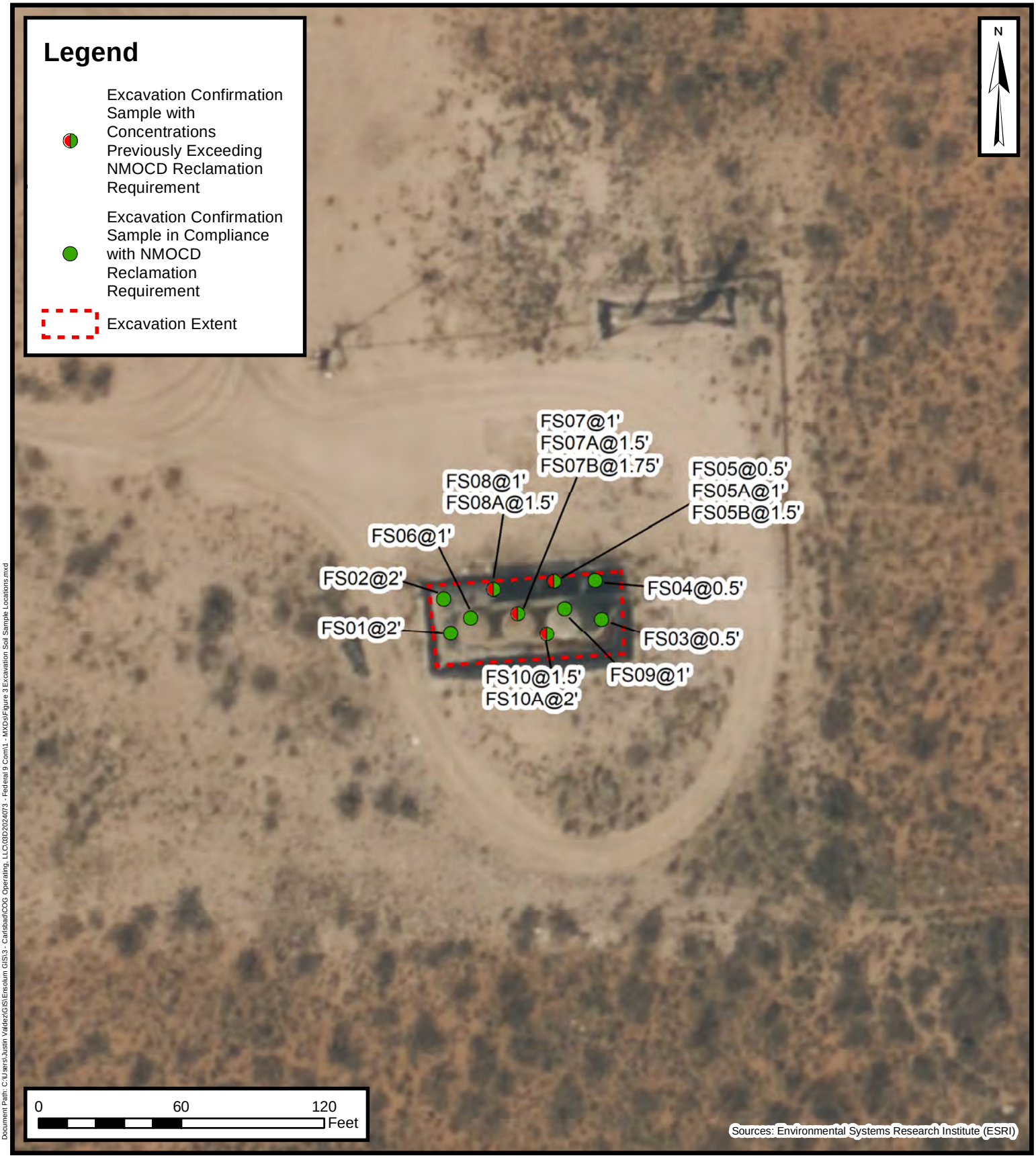
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

COG Operating, LLC
FEDERAL 9 COM 001
Incident Number: NAPP2218848721
Unit B, Sec 19 T26S R32E
Lea County, New Mexico

FIGURE
2



Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\3 - Carlsbad\COG Operating, LLC\03D2024073 - Federal 9 Com\1 - MXDs\Figure 3 Excavation Soil Sample Locations.mxd

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Excavation Soil Sample Locations

COG Operating, LLC
FEDERAL 9 COM 001
Incident Number: NAPP2218848721
Unit B, Sec 19 T26S R32E
Lea County, New Mexico

FIGURE
3

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TABLE

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Federal 9 Com 001
COG Operating, LLC
Lea County, New Mexico

Sample Designation	Date	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 Reclamation Requirement			**10**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600**
Lateral Delineation Soil Samples										
SS01	07/11/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	6.58
SS02	07/11/2022	0.5	<0.00198	<0.00397	<50.0	71.7	<50.0	71.7	71.7	24.2
SS03	07/11/2022	0.5	<0.00199	0.00505	<49.9	69.7	<49.9	69.7	69.7	41.5
SS04	07/11/2022	0.5	<0.00200	<0.00399	<49.9	60.0	<49.9	60.0	60.0	21.2
Preliminary Assesment Soil Samples										
PH01	08/23/2022	0.2	<0.00199	<0.00398	<50.0	151	121	151	**272**	401
PH01A	08/23/2022	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	28.8
Excavation Soil Samples										
FS01	09/21/2022	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	124
FS02	09/21/2022	1	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	27.9
FS03	09/21/2022	0.5	<0.00199	<0.00398	<50.0	56.5	<50.0	56.5	56.5	59.6
FS04	09/21/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	33.5
FS05	09/21/2022	0.5	<0.00199	<0.00398	<49.9	289	51.2	289	**340**	**708**
FS05A	10/07/2022	1	<0.00200	<0.00399	<50.0	757	135	892	**892**	127
FS05B	10/18/2022	1.25	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	74.7
FS06	09/21/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	39.3
FS07	09/21/2022	1	<0.00202	<0.00404	<50.0	260	69.6	260	**330**	50.4
FS07A	10/07/2022	1.5	<0.00200	<0.00399	<49.9	180	<49.9	180	**180**	121
FS07B	10/18/2022	1.75	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	73.3
FS08	09/21/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	**838**
FS08A	10/07/2022	1.5	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	98.1
FS09	09/21/2022	1	<0.00199	<0.00398	<50.0	95.2	<50.0	95.2	95.2	155
FS10	09/21/2022	1.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	**983**
FS10A	10/07/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	388

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 1 Closure Criteria or reclamation standard where applicable.*

Grey *text represents samples that have been excavated*

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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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of 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		

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Harimon Date: 07/07/2022

L48 Spill Volume Estimate Form

Facility Name & Number:	FEDERAL 9 COM #1 TB
Asset Area:	NDBE
Release Discovery Date & Time:	7-4-22 @ 11:00PM
Release Type:	Produced Water
Provide any known details about the event:	LIGHTNING STRIKE ON WATER TANK BLEW TOP OFF TANK AND CAUGHT IT ON FIRE. TANK BURNED TO THE E AND BURNED ITSELF OUT SOMETIME DURING THE NIGHT. TANK HAD 26 56BBLS ONLY. 284BBLS REMAINED

NAPP2218848721

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated *Pool* Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	20.0	5.0	0.25	6	100.000	0.003	0.062	0.000	0.062
Rectangle B	20.0	6.0	0.50	4	120.000	0.010	0.223	0.001	0.223
Rectangle C					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle J					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
								Total Volume Release:	0.284

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2218848721
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?	51-100 ft bgs
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2218848721
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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: 11/07/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 11/16/2022

State of New Mexico
Oil Conservation Division

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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: 11/07/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 11/16/2022

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

Closure Approved by: Jennifer Nobui Date: 12/14/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

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APPENDIX B

Referenced Well Record

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321402103275001

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

USGS 321402103275001 24S.34E.10.11212

Lea County, New Mexico
Latitude 32°14'02", Longitude 103°27'50" NAD27
Land-surface elevation 3,536 feet above NAVD88
The depth of the well is 83 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 measu
1953-04-27		D	62610		3462.62	NGVD29	1	Z		
1953-04-27		D	62611		3464.25	NAVD88	1	Z		
1953-04-27		D	72019	71.75			1	Z		
1955-06-03		D	62610		3462.46	NGVD29	1	Z		
1955-06-03		D	62611		3464.09	NAVD88	1	Z		
1955-06-03		D	72019	71.91			1	Z		

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

Section	Code	Description
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.

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

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2022-07-08 15:08:22 EDT
0.4 0.33 nadww01

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
COG Operating, LLC
Federal 9 Com 001
NAPP2218848721

Photograph 1 Date: 7/11/2022
Description: View of the release area prior to remediation, looking east

Photograph 2 Date:9/21/2022
Description: View of the release area during excavation activities, looking east

Photograph 3 Date: 10/17/2022
Description: View of the release area after excavation activities, looking northwest

Photograph 4 Date: 10/17/2022
Description: View of the release after excavation activities, looking north

ENSOLUM

APPENDIX D

Laboratory Analytical Report

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2537-1
Laboratory Sample Delivery Group: 0302024073
Client Project/Site: Fed 9 Com

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/18/2022 3:00:48 PM

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

Client: Ensolum
Project/Site: Fed 9 Com

Laboratory Job ID: 890-2537-1
SDG: 0302024073

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2537-1
Project/Site: Fed 9 Com SDG: 0302024073

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Job ID: 890-2537-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2537-1

Receipt
The samples were received on 7/11/2022 4:15 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 15.0°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-29796 and analytical batch 880-29885 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike duplicate (MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-29796 and analytical batch 880-29885. The associated laboratory control sample (LCS) met acceptance criteria.

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-29652 and analytical batch 880-29696 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Client Sample ID: SS01

Lab Sample ID: 890-2537-1
Matrix: Solid
Date Collected: 07/11/22 10:45
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1	0.00199		mg/Kg		07/15/22 08:47	07/17/22 18:29	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		07/15/22 08:47	07/17/22 18:29	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		07/15/22 08:47	07/17/22 18:29	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		07/15/22 08:47	07/17/22 18:29	1
o-Xylene	<0.00199	U F1	0.00199		mg/Kg		07/15/22 08:47	07/17/22 18:29	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		07/15/22 08:47	07/17/22 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*07/15/22 08:47*	*07/17/22 18:29*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*07/15/22 08:47*	*07/17/22 18:29*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/18/22 15:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/15/22 10:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/13/22 11:07	07/14/22 18:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		07/13/22 11:07	07/14/22 18:57	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/13/22 11:07	07/14/22 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*07/13/22 11:07*	*07/14/22 18:57*	*1*
o-Terphenyl	*78*		*70 - 130*	*07/13/22 11:07*	*07/14/22 18:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.58**		5.04		mg/Kg			07/16/22 11:58	1

Client Sample ID: SS02

Lab Sample ID: 890-2537-2
Matrix: Solid
Date Collected: 07/11/22 10:50
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/15/22 08:47	07/17/22 18:56	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/15/22 08:47	07/17/22 18:56	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/15/22 08:47	07/17/22 18:56	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		07/15/22 08:47	07/17/22 18:56	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/15/22 08:47	07/17/22 18:56	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/15/22 08:47	07/17/22 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*07/15/22 08:47*	*07/17/22 18:56*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Client Sample ID: SS02

Date Collected: 07/11/22 10:50
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2537-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*07/15/22 08:47*	*07/17/22 18:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			07/18/22 15:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**71.7**		50.0		mg/Kg			07/15/22 10:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/13/22 11:07	07/14/22 19:18	1
Diesel Range Organics (Over C10-C28)	**71.7**	***-**	50.0		mg/Kg		07/13/22 11:07	07/14/22 19:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/13/22 11:07	07/14/22 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*07/13/22 11:07*	*07/14/22 19:18*	*1*
o-Terphenyl	*95*		*70 - 130*	*07/13/22 11:07*	*07/14/22 19:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.2**		4.99		mg/Kg			07/16/22 12:07	1

Client Sample ID: SS03

Date Collected: 07/11/22 10:55
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2537-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/15/22 08:47	07/17/22 19:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/15/22 08:47	07/17/22 19:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/15/22 08:47	07/17/22 19:24	1
m-Xylene & p-Xylene	**0.00505**		0.00398		mg/Kg		07/15/22 08:47	07/17/22 19:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/15/22 08:47	07/17/22 19:24	1
Xylenes, Total	**0.00505**		0.00398		mg/Kg		07/15/22 08:47	07/17/22 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*07/15/22 08:47*	*07/17/22 19:24*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*07/15/22 08:47*	*07/17/22 19:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00505**		0.00398		mg/Kg			07/18/22 15:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**69.7**		49.9		mg/Kg			07/15/22 10:26	1

Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Client Sample ID: SS03

Lab Sample ID: 890-2537-3
Matrix: Solid
Date Collected: 07/11/22 10:55
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/13/22 11:07	07/14/22 19:38	1
Diesel Range Organics (Over C10-C28)	**69.7**	*-	49.9		mg/Kg		07/13/22 11:07	07/14/22 19:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/13/22 11:07	07/14/22 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*07/13/22 11:07*	*07/14/22 19:38*	*1*
o-Terphenyl	*87*		*70 - 130*	*07/13/22 11:07*	*07/14/22 19:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.5**		4.98		mg/Kg			07/16/22 12:16	1

Client Sample ID: SS04

Lab Sample ID: 890-2537-4
Matrix: Solid
Date Collected: 07/11/22 11:00
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/15/22 08:47	07/17/22 19:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/15/22 08:47	07/17/22 19:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/15/22 08:47	07/17/22 19:52	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/15/22 08:47	07/17/22 19:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/15/22 08:47	07/17/22 19:52	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/15/22 08:47	07/17/22 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*07/15/22 08:47*	*07/17/22 19:52*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*07/15/22 08:47*	*07/17/22 19:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/18/22 15:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**60.0**		49.9		mg/Kg			07/15/22 10:26	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/13/22 11:07	07/14/22 19:59	1
Diesel Range Organics (Over C10-C28)	**60.0**	*-	49.9		mg/Kg		07/13/22 11:07	07/14/22 19:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/13/22 11:07	07/14/22 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*07/13/22 11:07*	*07/14/22 19:59*	*1*
o-Terphenyl	*86*		*70 - 130*	*07/13/22 11:07*	*07/14/22 19:59*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Client Sample ID: SS04
Date Collected: 07/11/22 11:00
Date Received: 07/11/22 16:15
Sample Depth: 0.5'

Lab Sample ID: 890-2537-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.2		5.00		mg/Kg			07/16/22 12:25	1

Surrogate Summary

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

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)
890-2537-1	SS01	106	101
890-2537-1 MS	SS01	100	106
890-2537-1 MSD	SS01	77	90
890-2537-2	SS02	107	101
890-2537-3	SS03	105	97
890-2537-4	SS04	110	98
LCS 880-29796/1-A	Lab Control Sample	102	106
LCSD 880-29796/2-A	Lab Control Sample Dup	108	108
MB 880-29796/5-A	Method Blank	78	92

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-16861-A-1-B MS	Matrix Spike	89	83
880-16861-A-1-C MSD	Matrix Spike Duplicate	81	73
890-2537-1	SS01	79	78
890-2537-2	SS02	94	95
890-2537-3	SS03	84	87
890-2537-4	SS04	84	86
LCS 880-29652/2-A	Lab Control Sample	120	102
LCSD 880-29652/3-A	Lab Control Sample Dup	124	108
MB 880-29652/1-A	Method Blank	86	95

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29796/5-A
Matrix: Solid
Analysis Batch: 29885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29796

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/15/22 08:47	07/17/22 18:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/15/22 08:47	07/17/22 18:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/15/22 08:47	07/17/22 18:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/15/22 08:47	07/17/22 18:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/15/22 08:47	07/17/22 18:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/15/22 08:47	07/17/22 18:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*07/15/22 08:47*	*07/17/22 18:01*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*07/15/22 08:47*	*07/17/22 18:01*	*1*

Lab Sample ID: LCS 880-29796/1-A
Matrix: Solid
Analysis Batch: 29885

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29796

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1156		mg/Kg		116	70 - 130		
Toluene			0.100	0.09972		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.1045		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2034		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1062		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-29796/2-A
Matrix: Solid
Analysis Batch: 29885

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29796

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1151		mg/Kg		115	70 - 130	0	35
Toluene			0.100	0.08663		mg/Kg		87	70 - 130	14	35
Ethylbenzene			0.100	0.07643		mg/Kg		76	70 - 130	31	35
m-Xylene & p-Xylene			0.200	0.1457		mg/Kg		73	70 - 130	33	35
o-Xylene			0.100	0.07784		mg/Kg		78	70 - 130	31	35

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

Lab Sample ID: 890-2537-1 MS
Matrix: Solid
Analysis Batch: 29885

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U F1	0.100	0.1089		mg/Kg		109	70 - 130		
Toluene	<0.00199	U F1	0.100	0.08023		mg/Kg		80	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

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

Lab Sample ID: 890-2537-1 MS
Matrix: Solid
Analysis Batch: 29885

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.100	0.06821	F1	mg/Kg		68	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1290	F1	mg/Kg		64	70 - 130
o-Xylene	<0.00199	U F1	0.100	0.06830	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-2537-1 MSD
Matrix: Solid
Analysis Batch: 29885

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29796

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	<0.00199	U F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00199	U F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	<0.00399	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00199	U F1	0.0998	<0.00200	U F1	mg/Kg		0	70 - 130	NC	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-29652/1-A
Matrix: Solid
Analysis Batch: 29696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29652

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/13/22 11:06	07/14/22 11:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/13/22 11:06	07/14/22 11:11	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/13/22 11:06	07/14/22 11:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*07/13/22 11:06*	*07/14/22 11:11*	*1*
o-Terphenyl	*95*		*70 - 130*	*07/13/22 11:06*	*07/14/22 11:11*	*1*

Lab Sample ID: LCS 880-29652/2-A
Matrix: Solid
Analysis Batch: 29696

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29652

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1173		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1102		mg/Kg		110	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

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

Lab Sample ID: LCS 880-29652/2-A
Matrix: Solid
Analysis Batch: 29696

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29652

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-29652/3-A
Matrix: Solid
Analysis Batch: 29696

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29652

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1173		mg/Kg		117	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	1142		mg/Kg		114	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-16861-A-1-B MS
Matrix: Solid
Analysis Batch: 29696

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 29652

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	53.9		996	1119		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	833	*- F1	996	1277	F1	mg/Kg		45	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: 880-16861-A-1-C MSD
Matrix: Solid
Analysis Batch: 29696

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 29652

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	53.9		998	1024		mg/Kg		97	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	833	*- F1	998	1145	F1	mg/Kg		31	70 - 130	11	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	73		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29659/1-A
Matrix: Solid
Analysis Batch: 29860

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/16/22 09:49	1

Lab Sample ID: LCS 880-29659/2-A
Matrix: Solid
Analysis Batch: 29860

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	263.5		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-29659/3-A
Matrix: Solid
Analysis Batch: 29860

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	263.3		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-2537-4 MS
Matrix: Solid
Analysis Batch: 29860

Client Sample ID: SS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	21.2		250	294.6		mg/Kg		109	90 - 110		

Lab Sample ID: 890-2537-4 MSD
Matrix: Solid
Analysis Batch: 29860

Client Sample ID: SS04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	21.2		250	295.1		mg/Kg		110	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

GC VOA

Prep Batch: 29796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2537-1	SS01	Total/NA	Solid	5035	
890-2537-2	SS02	Total/NA	Solid	5035	
890-2537-3	SS03	Total/NA	Solid	5035	
890-2537-4	SS04	Total/NA	Solid	5035	
MB 880-29796/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29796/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29796/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2537-1 MS	SS01	Total/NA	Solid	5035	
890-2537-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 29885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2537-1	SS01	Total/NA	Solid	8021B	29796
890-2537-2	SS02	Total/NA	Solid	8021B	29796
890-2537-3	SS03	Total/NA	Solid	8021B	29796
890-2537-4	SS04	Total/NA	Solid	8021B	29796
MB 880-29796/5-A	Method Blank	Total/NA	Solid	8021B	29796
LCS 880-29796/1-A	Lab Control Sample	Total/NA	Solid	8021B	29796
LCSD 880-29796/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29796
890-2537-1 MS	SS01	Total/NA	Solid	8021B	29796
890-2537-1 MSD	SS01	Total/NA	Solid	8021B	29796

Analysis Batch: 29981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2537-1	SS01	Total/NA	Solid	Total BTEX	
890-2537-2	SS02	Total/NA	Solid	Total BTEX	
890-2537-3	SS03	Total/NA	Solid	Total BTEX	
890-2537-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 29652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2537-1	SS01	Total/NA	Solid	8015NM Prep	
890-2537-2	SS02	Total/NA	Solid	8015NM Prep	
890-2537-3	SS03	Total/NA	Solid	8015NM Prep	
890-2537-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-29652/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29652/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16861-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16861-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2537-1	SS01	Total/NA	Solid	8015B NM	29652
890-2537-2	SS02	Total/NA	Solid	8015B NM	29652
890-2537-3	SS03	Total/NA	Solid	8015B NM	29652
890-2537-4	SS04	Total/NA	Solid	8015B NM	29652
MB 880-29652/1-A	Method Blank	Total/NA	Solid	8015B NM	29652
LCS 880-29652/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29652

QC Association Summary

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

GC Semi VOA (Continued)

Analysis Batch: 29696 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-29652/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29652
880-16861-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	29652
880-16861-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29652

Analysis Batch: 29843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2537-1	SS01	Total/NA	Solid	8015 NM	
890-2537-2	SS02	Total/NA	Solid	8015 NM	
890-2537-3	SS03	Total/NA	Solid	8015 NM	
890-2537-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2537-1	SS01	Soluble	Solid	DI Leach	
890-2537-2	SS02	Soluble	Solid	DI Leach	
890-2537-3	SS03	Soluble	Solid	DI Leach	
890-2537-4	SS04	Soluble	Solid	DI Leach	
MB 880-29659/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29659/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29659/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2537-4 MS	SS04	Soluble	Solid	DI Leach	
890-2537-4 MSD	SS04	Soluble	Solid	DI Leach	

Analysis Batch: 29860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2537-1	SS01	Soluble	Solid	300.0	29659
890-2537-2	SS02	Soluble	Solid	300.0	29659
890-2537-3	SS03	Soluble	Solid	300.0	29659
890-2537-4	SS04	Soluble	Solid	300.0	29659
MB 880-29659/1-A	Method Blank	Soluble	Solid	300.0	29659
LCS 880-29659/2-A	Lab Control Sample	Soluble	Solid	300.0	29659
LCSD 880-29659/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29659
890-2537-4 MS	SS04	Soluble	Solid	300.0	29659
890-2537-4 MSD	SS04	Soluble	Solid	300.0	29659

Lab Chronicle

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Client Sample ID: SS01

Date Collected: 07/11/22 10:45
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2537-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29796	07/15/22 08:47	MR	XEN MID
Total/NA	Analysis	8021B		1			29885	07/17/22 18:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29981	07/18/22 15:14	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29843	07/15/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	29652	07/13/22 11:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29696	07/14/22 18:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29659	07/13/22 12:36	SMC	XEN MID
Soluble	Analysis	300.0		1			29860	07/16/22 11:58	CH	XEN MID

Client Sample ID: SS02

Date Collected: 07/11/22 10:50
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2537-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	29796	07/15/22 08:47	MR	XEN MID
Total/NA	Analysis	8021B		1			29885	07/17/22 18:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29981	07/18/22 15:14	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29843	07/15/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29652	07/13/22 11:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29696	07/14/22 19:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29659	07/13/22 12:36	SMC	XEN MID
Soluble	Analysis	300.0		1			29860	07/16/22 12:07	CH	XEN MID

Client Sample ID: SS03

Date Collected: 07/11/22 10:55
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2537-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	29796	07/15/22 08:47	MR	XEN MID
Total/NA	Analysis	8021B		1			29885	07/17/22 19:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29981	07/18/22 15:14	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29843	07/15/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29652	07/13/22 11:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29696	07/14/22 19:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29659	07/13/22 12:36	SMC	XEN MID
Soluble	Analysis	300.0		1			29860	07/16/22 12:16	CH	XEN MID

Client Sample ID: SS04

Date Collected: 07/11/22 11:00
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2537-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29796	07/15/22 08:47	MR	XEN MID
Total/NA	Analysis	8021B		1			29885	07/17/22 19:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29981	07/18/22 15:14	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Client Sample ID: SS04

Date Collected: 07/11/22 11:00
Date Received: 07/11/22 16:15

Lab Sample ID: 890-2537-4

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			29843	07/15/22 10:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	29652	07/13/22 11:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29696	07/14/22 19:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29659	07/13/22 12:36	SMC	XEN MID
Soluble	Analysis	300.0		1			29860	07/16/22 12:25	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

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: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Fed 9 Com

Job ID: 890-2537-1
SDG: 0302024073

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2537-1	SS01	Solid	07/11/22 10:45	07/11/22 16:15	0.5'
890-2537-2	SS02	Solid	07/11/22 10:50	07/11/22 16:15	0.5'
890-2537-3	SS03	Solid	07/11/22 10:55	07/11/22 16:15	0.5'
890-2537-4	SS04	Solid	07/11/22 11:00	07/11/22 16:15	0.5'

Chain of Custody

eurofins | Environment Testing Xenco

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

Work Order No: _____

CIP-cooling in Process

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	
Company Name:	Ensolum	Company Name:	
Address:	3122 Nati. Parks Hwy	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
Phone:	8176832503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	Fed A com	Turn Around	
Project Number:	03202410T3	☒ Routine ☐ Rush	
Project Location:	Eddy county	Due Date: 5 day tat	
Sampler's Name:	Liz Crell	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	N/A		

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	15.2	
Total Containers:		Corrected Temperature:	15.0	

ANALYSIS REQUEST

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: Btex	Chloride	tph	Sample Comments
SS01	S	7/11/22	1045	0.5	C	1				
SS02			1050							
SS03			1055							
SS04			1100							

890-2537 Chain of Custody

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Short	7/11/22 1615	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-837 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2537-1
Address: 1211 W Florida Ave	Due Date Requested: 7/15/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Fed a cam	Project #: 89000094			
Site	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8016MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SS01 (890-2537-1)	7/11/22	10 45 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-2537-2)	7/11/22	10 50 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-2537-3)	7/11/22	10 55 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-2537-4)	7/11/22	11 00 Mountain		Solid			X	X	X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Clee			JKramer	7.13.22 1100	
2	Relinquished by	Date/Time:	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2537-1
SDG Number: 0302024073

Login Number: 2537
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-2537-1
SDG Number: 0302024073

Login Number: 2537
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 07/13/22 11:52 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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2826-1
Laboratory Sample Delivery Group: 03D2024073
Client Project/Site: Federal 9 Com #1
Revision: 1

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

Attn: Josh Adams

JKramer

Authorized for release by:
10/10/2022 3:28:06 PM

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

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

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

Client: Ensolum
Project/Site: Federal 9 Com #1

Laboratory Job ID: 890-2826-1
SDG: 03D2024073

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

Qualifiers

GC VOA

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

Job ID: 890-2826-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2826-1

REVISION

The report being provided is a revision of the original report sent on 9/5/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID corrections.

Report revision history

Receipt
The samples were received on 8/24/2022 10:07 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions
The following samples were collected in an improper container: PH01 (890-2826-1) and PH01A (890-2826-2). The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis.

Sample received in a 2 oz jar, client requested SAR testing but did not bring enough to sample

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-33663 and analytical batch 880-33742 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
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 880-33075 and analytical batch 880-33438 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: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

Client Sample ID: PH01

Date Collected: 08/23/22 10:40
Date Received: 08/24/22 10:07
Sample Depth: .2'

Lab Sample ID: 890-2826-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/02/22 16:00	09/05/22 19:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/02/22 16:00	09/05/22 19:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/02/22 16:00	09/05/22 19:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/02/22 16:00	09/05/22 19:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/02/22 16:00	09/05/22 19:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/02/22 16:00	09/05/22 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*09/02/22 16:00*	*09/05/22 19:21*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*09/02/22 16:00*	*09/05/22 19:21*	*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			09/05/22 21:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**272**		50.0		mg/Kg			08/29/22 10:16	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		08/26/22 15:42	08/28/22 23:31	1
Diesel Range Organics (Over C10-C28)	**151**		50.0		mg/Kg		08/26/22 15:42	08/28/22 23:31	1
OII Range Organics (Over C28-C36)	**121**		50.0		mg/Kg		08/26/22 15:42	08/28/22 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*08/26/22 15:42*	*08/28/22 23:31*	*1*
o-Terphenyl	*87*		*70 - 130*	*08/26/22 15:42*	*08/28/22 23:31*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**401**		4.96		mg/Kg			09/01/22 13:11	1

Client Sample ID: PH01A

Date Collected: 08/23/22 10:50
Date Received: 08/24/22 10:07
Sample Depth: 1'

Lab Sample ID: 890-2826-2
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		09/02/22 16:00	09/05/22 19:41	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/02/22 16:00	09/05/22 19:41	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/02/22 16:00	09/05/22 19:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/02/22 16:00	09/05/22 19:41	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/02/22 16:00	09/05/22 19:41	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/02/22 16:00	09/05/22 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*09/02/22 16:00*	*09/05/22 19:41*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

Client Sample ID: PH01A
Date Collected: 08/23/22 10:50
Date Received: 08/24/22 10:07
Sample Depth: 1'

Lab Sample ID: 890-2826-2
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*09/02/22 16:00*	*09/05/22 19:41*	*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			09/05/22 21:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			08/29/22 10:16	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/26/22 15:42	08/28/22 23:52	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		08/26/22 15:42	08/28/22 23:52	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/26/22 15:42	08/28/22 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*80*		*70 - 130*	*08/26/22 15:42*	*08/28/22 23:52*	*1*
o-Terphenyl	*84*		*70 - 130*	*08/26/22 15:42*	*08/28/22 23:52*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.8**		4.97		mg/Kg			09/01/22 13:18	1

Surrogate Summary

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

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)
890-2815-A-1-C MS	Matrix Spike	82	111
890-2815-A-1-D MSD	Matrix Spike Duplicate	85	111
890-2826-1	PH01	83	112
890-2826-2	PH01A	86	107
LCS 880-33663/1-A	Lab Control Sample	83	109
LCSD 880-33663/2-A	Lab Control Sample Dup	86	102
MB 880-33663/5-A	Method Blank	78	123

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)
890-2812-A-1-C MS	Matrix Spike	90	84
890-2812-A-1-D MSD	Matrix Spike Duplicate	93	85
890-2826-1	PH01	84	87
890-2826-2	PH01A	80	84
LCS 880-33084/2-A	Lab Control Sample	105	114
LCSD 880-33084/3-A	Lab Control Sample Dup	108	119
MB 880-33084/1-A	Method Blank	73	79

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-33663/5-A
Matrix: Solid
Analysis Batch: 33742

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33663

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/02/22 16:00	09/05/22 16:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/02/22 16:00	09/05/22 16:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/02/22 16:00	09/05/22 16:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/02/22 16:00	09/05/22 16:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/02/22 16:00	09/05/22 16:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/02/22 16:00	09/05/22 16:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*09/02/22 16:00*	*09/05/22 16:08*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*09/02/22 16:00*	*09/05/22 16:08*	*1*

Lab Sample ID: LCS 880-33663/1-A
Matrix: Solid
Analysis Batch: 33742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33663

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1199		mg/Kg		120	70 - 130		
Toluene			0.100	0.1036		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.09765		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.1754		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.09026		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 880-33663/2-A
Matrix: Solid
Analysis Batch: 33742

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33663

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1127		mg/Kg		113	70 - 130	6	35
Toluene			0.100	0.1093		mg/Kg		109	70 - 130	5	35
Ethylbenzene			0.100	0.1041		mg/Kg		104	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1890		mg/Kg		95	70 - 130	7	35
o-Xylene			0.100	0.09734		mg/Kg		97	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-2815-A-1-C MS
Matrix: Solid
Analysis Batch: 33742

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 33663

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0998	0.09208		mg/Kg		92	70 - 130		
Toluene	<0.00199	U F1	0.0998	0.06842	F1	mg/Kg		69	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

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

Lab Sample ID: 890-2815-A-1-C MS
Matrix: Solid
Analysis Batch: 33742

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 33663

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.0998	0.05156	F1	mg/Kg		52	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.09022	F1	mg/Kg		45	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.04710	F1	mg/Kg		47	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 890-2815-A-1-D MSD
Matrix: Solid
Analysis Batch: 33742

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 33663

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	0.09004		mg/Kg		90	70 - 130	2	35
Toluene	<0.00199	U F1	0.100	0.06341	F1	mg/Kg		63	70 - 130	8	35
Ethylbenzene	<0.00199	U F1	0.100	0.04691	F1	mg/Kg		47	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.08178	F1	mg/Kg		41	70 - 130	10	35
o-Xylene	<0.00199	U F1	0.100	0.04246	F1	mg/Kg		42	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

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

Lab Sample ID: MB 880-33084/1-A
Matrix: Solid
Analysis Batch: 33127

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 33084

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/26/22 15:42	08/28/22 17:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/26/22 15:42	08/28/22 17:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/26/22 15:42	08/28/22 17:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*08/26/22 15:42*	*08/28/22 17:32*	*1*
o-Terphenyl	*79*		*70 - 130*	*08/26/22 15:42*	*08/28/22 17:32*	*1*

Lab Sample ID: LCS 880-33084/2-A
Matrix: Solid
Analysis Batch: 33127

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33084

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	882.1		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)			1000	963.8		mg/Kg		96	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

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

Lab Sample ID: LCS 880-33084/2-A
Matrix: Solid
Analysis Batch: 33127

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 33084

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: LCSD 880-33084/3-A
Matrix: Solid
Analysis Batch: 33127

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 33084

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	914.9		mg/Kg		91	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1028		mg/Kg		103	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: 890-2812-A-1-C MS
Matrix: Solid
Analysis Batch: 33127

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 33084

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	906.5		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	728.3		mg/Kg		73	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 890-2812-A-1-D MSD
Matrix: Solid
Analysis Batch: 33127

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 33084

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	955.4		mg/Kg		93	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	749.7		mg/Kg		75	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	85		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-33075/1-A
Matrix: Solid
Analysis Batch: 33438

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			09/01/22 09:56	1

Lab Sample ID: LCS 880-33075/2-A
Matrix: Solid
Analysis Batch: 33438

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.9		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-33075/3-A
Matrix: Solid
Analysis Batch: 33438

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	249.0		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-2830-A-1-C MS
Matrix: Solid
Analysis Batch: 33438

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	29.5	F1	250	305.8	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 890-2830-A-1-D MSD
Matrix: Solid
Analysis Batch: 33438

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	29.5	F1	250	303.7		mg/Kg		110	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

GC VOA

Prep Batch: 33663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2826-1	PH01	Total/NA	Solid	5035	
890-2826-2	PH01A	Total/NA	Solid	5035	
MB 880-33663/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-33663/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-33663/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2815-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-2815-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 33742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2826-1	PH01	Total/NA	Solid	8021B	33663
890-2826-2	PH01A	Total/NA	Solid	8021B	33663
MB 880-33663/5-A	Method Blank	Total/NA	Solid	8021B	33663
LCS 880-33663/1-A	Lab Control Sample	Total/NA	Solid	8021B	33663
LCSD 880-33663/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	33663
890-2815-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	33663
890-2815-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	33663

Analysis Batch: 33776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2826-1	PH01	Total/NA	Solid	Total BTEX	
890-2826-2	PH01A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 33084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2826-1	PH01	Total/NA	Solid	8015NM Prep	
890-2826-2	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-33084/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-33084/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-33084/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2812-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2812-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 33127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2826-1	PH01	Total/NA	Solid	8015B NM	33084
890-2826-2	PH01A	Total/NA	Solid	8015B NM	33084
MB 880-33084/1-A	Method Blank	Total/NA	Solid	8015B NM	33084
LCS 880-33084/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	33084
LCSD 880-33084/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	33084
890-2812-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	33084
890-2812-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	33084

Analysis Batch: 33187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2826-1	PH01	Total/NA	Solid	8015 NM	
890-2826-2	PH01A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

HPLC/IC

Leach Batch: 33075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2826-1	PH01	Soluble	Solid	DI Leach	
890-2826-2	PH01A	Soluble	Solid	DI Leach	
MB 880-33075/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-33075/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-33075/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2830-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2830-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 33438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2826-1	PH01	Soluble	Solid	300.0	33075
890-2826-2	PH01A	Soluble	Solid	300.0	33075
MB 880-33075/1-A	Method Blank	Soluble	Solid	300.0	33075
LCS 880-33075/2-A	Lab Control Sample	Soluble	Solid	300.0	33075
LCSD 880-33075/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	33075
890-2830-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	33075
890-2830-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	33075

Lab Chronicle

Client: Ensolum
Project/Site: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

Client Sample ID: PH01

Date Collected: 08/23/22 10:40
Date Received: 08/24/22 10:07

Lab Sample ID: 890-2826-1

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	33663	09/02/22 16:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33742	09/05/22 19:21	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33776	09/05/22 21:14	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33187	08/29/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	33084	08/26/22 15:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33127	08/28/22 23:31	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	33075	08/26/22 14:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33438	09/01/22 13:11	CH	EET MID

Client Sample ID: PH01A

Date Collected: 08/23/22 10:50
Date Received: 08/24/22 10:07

Lab Sample ID: 890-2826-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	33663	09/02/22 16:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	33742	09/05/22 19:41	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			33776	09/05/22 21:14	AJ	EET MID
Total/NA	Analysis	8015 NM		1			33187	08/29/22 10:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	33084	08/26/22 15:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	33127	08/28/22 23:52	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	33075	08/26/22 14:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	33438	09/01/22 13:18	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: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

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: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

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: Federal 9 Com #1

Job ID: 890-2826-1
SDG: 03D2024073

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2826-1	PH01	Solid	08/23/22 10:40	08/24/22 10:07	.2'
890-2826-2	PH01A	Solid	08/23/22 10:50	08/24/22 10:07	1'

Chain of Custody

eurofins | Environment Testing Xenco

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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Josh Adams	Bill to: (if different)	
Company Name:	Ensolum	Company Name:	
Address:	3122 National Parks	Address:	
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	
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:	Federal 9 com #1	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024073	Due Date:	
Project Location:	Lea County	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	CB		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TAM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2	
Total Containers:		Corrected Temperature:	1.0	

ANALYSIS REQUEST

Pres. Code / Parameters: GHL, BTX, TPH, SAR

890-2826 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	GHL	BTX	TPH	SAR	Sample Comments
PH-1	S	8-23	1040	.2ft	G	1	/	/	/	/	Eng ID:
PH-2	S	8-23	1050	1ft	G	1	/	/	/	/	NAPP2218848724
											CC
											A-76236 (SM)

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	Amanda Stepp	8/24/22 1007	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2826-1
SDG Number: 03D2024073

Login Number: 2826
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-2826-1
SDG Number: 03D2024073

Login Number: 2826
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/25/22 10:42 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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3027-1
Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Fed 9 Com 1
Revision: 1

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

Attn: Josh Adams

JKramer

Authorized for release by:
10/5/2022 11:47:09 AM

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

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

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

Client: Ensolum
Project/Site: Fed 9 Com 1

Laboratory Job ID: 890-3027-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Job ID: 890-3027-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3027-1

REVISION

The report being provided is a revision of the original report sent on 9/27/2022. The report (revision 1) is being revised due to Per client email, requesting RUSH TPH re run.

Report revision history

Receipt
The samples were received on 9/21/2022 3:17 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 28.0°C

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: FS01 (890-3027-1), FS02 (890-3027-2), FS03 (890-3027-3), FS04 (890-3027-4), FS05 (890-3027-5), FS06 (890-3027-6), FS07 (890-3027-7), FS08 (890-3027-8), FS09 (890-3027-9) and FS10 (890-3027-10). This does not meet regulatory requirements. The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis.

Samples received out of temp range 28.2/28.0 Client was notified and wishes to proceed with testing.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-35263 and analytical batch 880-35322 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS02 (890-3027-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS07 (890-3027-7) and FS08 (890-3027-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-35263 and analytical batch 880-35322 contained Diesel Range Organics (Over C10-C28) 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 matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-35610 and analytical batch 880-35641 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-35610 and analytical batch 880-35641 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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 880-35372

Case Narrative

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Job ID: 890-3027-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

and analytical batch 880-35453 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: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS01

Date Collected: 09/21/22 11:40
Date Received: 09/21/22 15:17
Sample Depth: 2'

Lab Sample ID: 890-3027-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/26/22 16:11	09/27/22 11:46	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/26/22 16:11	09/27/22 11:46	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/26/22 16:11	09/27/22 11:46	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/26/22 16:11	09/27/22 11:46	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/26/22 16:11	09/27/22 11:46	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/26/22 16:11	09/27/22 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*09/26/22 16:11*	*09/27/22 11:46*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*09/26/22 16:11*	*09/27/22 11:46*	*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			09/27/22 15:09	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			09/26/22 12:14	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		09/23/22 11:06	09/24/22 21:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/23/22 11:06	09/24/22 21:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/23/22 11:06	09/24/22 21:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*09/23/22 11:06*	*09/24/22 21:38*	*1*
o-Terphenyl	*86*		*70 - 130*	*09/23/22 11:06*	*09/24/22 21:38*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**124**		5.04		mg/Kg			09/27/22 02:09	1

Client Sample ID: FS02

Date Collected: 09/21/22 14:30
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-2
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		09/26/22 16:11	09/27/22 12:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/26/22 16:11	09/27/22 12:06	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/26/22 16:11	09/27/22 12:06	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		09/26/22 16:11	09/27/22 12:06	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/26/22 16:11	09/27/22 12:06	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/26/22 16:11	09/27/22 12:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*09/26/22 16:11*	*09/27/22 12:06*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS02
Date Collected: 09/21/22 14:30
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*	*09/26/22 16:11*	*09/27/22 12:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			09/27/22 15:09	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			09/26/22 12:14	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		09/23/22 11:06	09/24/22 22:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/23/22 11:06	09/24/22 22:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/23/22 11:06	09/24/22 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*44*	*S1-*	*70 - 130*	*09/23/22 11:06*	*09/24/22 22:42*	*1*
o-Terphenyl	*113*		*70 - 130*	*09/23/22 11:06*	*09/24/22 22:42*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.9**		4.98	mg/Kg			09/27/22 02:13	1

Client Sample ID: FS03
Date Collected: 09/21/22 14:35
Date Received: 09/21/22 15:17
Sample Depth: 0.5'

Lab Sample ID: 890-3027-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/26/22 16:11	09/27/22 12:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/26/22 16:11	09/27/22 12:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/26/22 16:11	09/27/22 12:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/26/22 16:11	09/27/22 12:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/26/22 16:11	09/27/22 12:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/26/22 16:11	09/27/22 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*09/26/22 16:11*	*09/27/22 12:26*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*09/26/22 16:11*	*09/27/22 12:26*	*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			09/27/22 15:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**56.5**		50.0	mg/Kg			09/26/22 12:14	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS03

Date Collected: 09/21/22 14:35
Date Received: 09/21/22 15:17
Sample Depth: 0.5'

Lab Sample ID: 890-3027-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/23/22 11:06	09/24/22 23:03	1
Diesel Range Organics (Over C10-C28)	**56.5**		50.0		mg/Kg		09/23/22 11:06	09/24/22 23:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/23/22 11:06	09/24/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*09/23/22 11:06*	*09/24/22 23:03*	*1*
o-Terphenyl	*96*		*70 - 130*	*09/23/22 11:06*	*09/24/22 23:03*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**59.6**		4.95		mg/Kg			09/27/22 02:18	1

Client Sample ID: FS04

Date Collected: 09/21/22 14:40
Date Received: 09/21/22 15:17
Sample Depth: 0.5'

Lab Sample ID: 890-3027-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 12:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 12:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 12:47	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/26/22 16:11	09/27/22 12:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 12:47	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/26/22 16:11	09/27/22 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*09/26/22 16:11*	*09/27/22 12:47*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*09/26/22 16:11*	*09/27/22 12:47*	*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			09/27/22 15:09	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			09/26/22 12:14	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		09/23/22 11:06	09/24/22 23:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/23/22 11:06	09/24/22 23:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/23/22 11:06	09/24/22 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*09/23/22 11:06*	*09/24/22 23:24*	*1*
o-Terphenyl	*103*		*70 - 130*	*09/23/22 11:06*	*09/24/22 23:24*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS04
Date Collected: 09/21/22 14:40
Date Received: 09/21/22 15:17
Sample Depth: 0.5'

Lab Sample ID: 890-3027-4
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33.5**		5.01		mg/Kg			09/27/22 02:23	1

Client Sample ID: FS05
Date Collected: 09/21/22 14:45
Date Received: 09/21/22 15:17
Sample Depth: 0.5'

Lab Sample ID: 890-3027-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/26/22 16:11	09/27/22 13:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/26/22 16:11	09/27/22 13:07	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/26/22 16:11	09/27/22 13:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/26/22 16:11	09/27/22 13:07	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/26/22 16:11	09/27/22 13:07	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/26/22 16:11	09/27/22 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*09/26/22 16:11*	*09/27/22 13:07*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*09/26/22 16:11*	*09/27/22 13:07*	*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			09/27/22 15:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**340**		49.9		mg/Kg			09/26/22 12:14	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 *1	49.9		mg/Kg		09/28/22 13:29	09/29/22 23:39	1
Diesel Range Organics (Over C10-C28)	**289**		49.9		mg/Kg		09/28/22 13:29	09/29/22 23:39	1
OII Range Organics (Over C28-C36)	**51.2**		49.9		mg/Kg		09/28/22 13:29	09/29/22 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*09/28/22 13:29*	*09/29/22 23:39*	*1*
o-Terphenyl	*98*		*70 - 130*	*09/28/22 13:29*	*09/29/22 23:39*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**708**		4.97		mg/Kg			09/27/22 02:28	1

Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS06

Date Collected: 09/21/22 09:30
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-6

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		09/26/22 16:11	09/27/22 13:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/26/22 16:11	09/27/22 13:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/26/22 16:11	09/27/22 13:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/26/22 16:11	09/27/22 13:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/26/22 16:11	09/27/22 13:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/26/22 16:11	09/27/22 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*09/26/22 16:11*	*09/27/22 13:28*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*09/26/22 16:11*	*09/27/22 13:28*	*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			09/27/22 15:09	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			09/26/22 12:14	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		09/23/22 11:06	09/25/22 00:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/23/22 11:06	09/25/22 00:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/23/22 11:06	09/25/22 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*09/23/22 11:06*	*09/25/22 00:06*	*1*
o-Terphenyl	*102*		*70 - 130*	*09/23/22 11:06*	*09/25/22 00:06*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**39.3**		4.99		mg/Kg			09/27/22 02:33	1

Client Sample ID: FS07

Date Collected: 09/21/22 09:45
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/26/22 16:11	09/27/22 13:48	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/26/22 16:11	09/27/22 13:48	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/26/22 16:11	09/27/22 13:48	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		09/26/22 16:11	09/27/22 13:48	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/26/22 16:11	09/27/22 13:48	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		09/26/22 16:11	09/27/22 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*09/26/22 16:11*	*09/27/22 13:48*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS07

Date Collected: 09/21/22 09:45
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*09/26/22 16:11*	*09/27/22 13:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			09/27/22 15:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**330**		50.0	mg/Kg			09/26/22 12:14	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 *1	50.0	mg/Kg		09/28/22 13:29	09/30/22 00:00	1
Diesel Range Organics (Over C10-C28)	**260**		50.0	mg/Kg		09/28/22 13:29	09/30/22 00:00	1
Oil Range Organics (Over C28-C36)	**69.6**		50.0	mg/Kg		09/28/22 13:29	09/30/22 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*09/28/22 13:29*	*09/30/22 00:00*	*1*
o-Terphenyl	*93*		*70 - 130*	*09/28/22 13:29*	*09/30/22 00:00*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50.4**		5.02	mg/Kg			09/27/22 14:13	1

Client Sample ID: FS08

Date Collected: 09/21/22 10:02
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-8
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		09/26/22 16:11	09/27/22 14:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		09/26/22 16:11	09/27/22 14:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/26/22 16:11	09/27/22 14:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/26/22 16:11	09/27/22 14:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/26/22 16:11	09/27/22 14:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/26/22 16:11	09/27/22 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*09/26/22 16:11*	*09/27/22 14:08*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*09/26/22 16:11*	*09/27/22 14:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/27/22 15:09	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			09/26/22 12:14	1

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Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS08

Date Collected: 09/21/22 10:02
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-8
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/23/22 11:06	09/25/22 00:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/23/22 11:06	09/25/22 00:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/23/22 11:06	09/25/22 00:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*139*	*S1+*	*70 - 130*	*09/23/22 11:06*	*09/25/22 00:49*	*1*
o-Terphenyl	*122*		*70 - 130*	*09/23/22 11:06*	*09/25/22 00:49*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**838**		5.05		mg/Kg			09/27/22 14:19	1

Client Sample ID: FS09

Date Collected: 09/21/22 10:20
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-9
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/26/22 16:11	09/27/22 14:29	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/26/22 16:11	09/27/22 14:29	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/26/22 16:11	09/27/22 14:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/26/22 16:11	09/27/22 14:29	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/26/22 16:11	09/27/22 14:29	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/26/22 16:11	09/27/22 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*09/26/22 16:11*	*09/27/22 14:29*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*09/26/22 16:11*	*09/27/22 14:29*	*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			09/27/22 15:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**95.2**		50.0		mg/Kg			09/26/22 12:14	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 *1	50.0		mg/Kg		09/28/22 13:29	09/30/22 00:22	1
Diesel Range Organics (Over C10-C28)	**95.2**		50.0		mg/Kg		09/28/22 13:29	09/30/22 00:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/28/22 13:29	09/30/22 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*09/28/22 13:29*	*09/30/22 00:22*	*1*
o-Terphenyl	*97*		*70 - 130*	*09/28/22 13:29*	*09/30/22 00:22*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS09
Date Collected: 09/21/22 10:20
Date Received: 09/21/22 15:17
Sample Depth: 1'

Lab Sample ID: 890-3027-9
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	155		4.99		mg/Kg			09/27/22 14:25	1

Client Sample ID: FS10
Date Collected: 09/21/22 11:30
Date Received: 09/21/22 15:17
Sample Depth: 1.5'

Lab Sample ID: 890-3027-10
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		09/26/22 16:11	09/27/22 14:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 14:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 14:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/26/22 16:11	09/27/22 14:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 14:49	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/26/22 16:11	09/27/22 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*09/26/22 16:11*	*09/27/22 14:49*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*09/26/22 16:11*	*09/27/22 14:49*	*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			09/27/22 15:09	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			09/26/22 12:14	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		09/23/22 11:06	09/25/22 01:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/23/22 11:06	09/25/22 01:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/23/22 11:06	09/25/22 01:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*09/23/22 11:06*	*09/25/22 01:31*	*1*
o-Terphenyl	*105*		*70 - 130*	*09/23/22 11:06*	*09/25/22 01:31*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	983		5.00		mg/Kg			09/27/22 14:31	1

Surrogate Summary

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

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)
890-3027-1	FS01	84	102
890-3027-1 MS	FS01	93	94
890-3027-1 MSD	FS01	76	107
890-3027-2	FS02	107	121
890-3027-3	FS03	101	105
890-3027-4	FS04	95	110
890-3027-5	FS05	99	104
890-3027-6	FS06	83	107
890-3027-7	FS07	81	108
890-3027-8	FS08	101	108
890-3027-9	FS09	103	110
890-3027-10	FS10	92	102
LCS 880-35444/1-A	Lab Control Sample	89	102
LCSD 880-35444/2-A	Lab Control Sample Dup	78	109
MB 880-35444/5-A	Method Blank	105	119

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-19720-A-1-C MS	Matrix Spike	85	79
880-19720-A-1-D MSD	Matrix Spike Duplicate	105	93
890-3027-1	FS01	102	86
890-3027-1 MS	FS01	110	91
890-3027-1 MSD	FS01	126	89
890-3027-2	FS02	44 S1-	113
890-3027-3	FS03	112	96
890-3027-4	FS04	115	103
890-3027-5	FS05	95	98
890-3027-6	FS06	117	102
890-3027-7	FS07	89	93
890-3027-8	FS08	139 S1+	122
890-3027-9	FS09	94	97
890-3027-10	FS10	122	105
LCS 880-35263/2-A	Lab Control Sample	117	104
LCS 880-35610/2-A	Lab Control Sample	121	119
LCSD 880-35263/3-A	Lab Control Sample Dup	110	103
LCSD 880-35610/3-A	Lab Control Sample Dup	107	109
MB 880-35263/1-A	Method Blank	156 S1+	147 S1+
MB 880-35610/1-A	Method Blank	123	124

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-35444/5-A
Matrix: Solid
Analysis Batch: 35468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35444

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 11:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 11:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 11:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/26/22 16:11	09/27/22 11:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/22 16:11	09/27/22 11:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/26/22 16:11	09/27/22 11:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*09/26/22 16:11*	*09/27/22 11:17*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*09/26/22 16:11*	*09/27/22 11:17*	*1*

Lab Sample ID: LCS 880-35444/1-A
Matrix: Solid
Analysis Batch: 35468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35444

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1093		mg/Kg		109	70 - 130		
Toluene			0.100	0.09446		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09270		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1890		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.09446		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-35444/2-A
Matrix: Solid
Analysis Batch: 35468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35444

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1078		mg/Kg		108	70 - 130	1	35
Toluene			0.100	0.08504		mg/Kg		85	70 - 130	10	35
Ethylbenzene			0.100	0.08150		mg/Kg		81	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.1649		mg/Kg		82	70 - 130	14	35
o-Xylene			0.100	0.08006		mg/Kg		80	70 - 130	17	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-3027-1 MS
Matrix: Solid
Analysis Batch: 35468

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 35444

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0990	0.07495		mg/Kg		76	70 - 130		
Toluene	<0.00202	U	0.0990	0.08211		mg/Kg		82	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

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

Lab Sample ID: 890-3027-1 MS
Matrix: Solid
Analysis Batch: 35468

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 35444

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0990	0.08389		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.198	0.1734		mg/Kg		88	70 - 130
o-Xylene	<0.00202	U	0.0990	0.08507		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-3027-1 MSD
Matrix: Solid
Analysis Batch: 35468

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 35444

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0998	0.1005		mg/Kg		101	70 - 130	29	35
Toluene	<0.00202	U	0.0998	0.08097		mg/Kg		81	70 - 130	1	35
Ethylbenzene	<0.00202	U	0.0998	0.07712		mg/Kg		77	70 - 130	8	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1550		mg/Kg		78	70 - 130	11	35
o-Xylene	<0.00202	U	0.0998	0.07429		mg/Kg		74	70 - 130	14	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

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

Lab Sample ID: MB 880-35263/1-A
Matrix: Solid
Analysis Batch: 35322

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35263

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		09/23/22 11:06	09/24/22 20:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/23/22 11:06	09/24/22 20:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/23/22 11:06	09/24/22 20:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*156*	*S1+*	*70 - 130*	*09/23/22 11:06*	*09/24/22 20:31*	*1*
o-Terphenyl	*147*	*S1+*	*70 - 130*	*09/23/22 11:06*	*09/24/22 20:31*	*1*

Lab Sample ID: LCS 880-35263/2-A
Matrix: Solid
Analysis Batch: 35322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35263

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1065		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1082		mg/Kg		108	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-35263/2-A
Matrix: Solid
Analysis Batch: 35322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35263

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: LCSD 880-35263/3-A
Matrix: Solid
Analysis Batch: 35322

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35263

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1152		mg/Kg		115	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	1068		mg/Kg		107	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-3027-1 MS
Matrix: Solid
Analysis Batch: 35322

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 35263

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	996.4		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1128		mg/Kg		112	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 890-3027-1 MSD
Matrix: Solid
Analysis Batch: 35322

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 35263

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1092		mg/Kg		107	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1148		mg/Kg		113	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	89		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-35610/1-A
Matrix: Solid
Analysis Batch: 35641

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35610

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		09/28/22 13:29	09/29/22 20:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/28/22 13:29	09/29/22 20:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/28/22 13:29	09/29/22 20:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*09/28/22 13:29*	*09/29/22 20:05*	*1*
o-Terphenyl	*124*		*70 - 130*	*09/28/22 13:29*	*09/29/22 20:05*	*1*

Lab Sample ID: LCS 880-35610/2-A
Matrix: Solid
Analysis Batch: 35641

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35610

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	881.1		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1075		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*119*		*70 - 130*

Lab Sample ID: LCSD 880-35610/3-A
Matrix: Solid
Analysis Batch: 35641

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35610

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1164	*1	mg/Kg		116	70 - 130	28	20
Diesel Range Organics (Over C10-C28)			1000	1017		mg/Kg		102	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*109*		*70 - 130*

Lab Sample ID: 880-19720-A-1-C MS
Matrix: Solid
Analysis Batch: 35641

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 35610

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 *1	998	805.7		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	863.2		mg/Kg		85	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

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

Lab Sample ID: 880-19720-A-1-C MS
Matrix: Solid
Analysis Batch: 35641

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 35610

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	79		70 - 130

Lab Sample ID: 880-19720-A-1-D MSD
Matrix: Solid
Analysis Batch: 35641

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 35610

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 *1	999	1043	F2	mg/Kg		102	70 - 130	26	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1046		mg/Kg		103	70 - 130	19	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	93		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-35317/1-A
Matrix: Solid
Analysis Batch: 35427

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			09/27/22 00:07	1

Lab Sample ID: LCS 880-35317/2-A
Matrix: Solid
Analysis Batch: 35427

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.8		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-35317/3-A
Matrix: Solid
Analysis Batch: 35427

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	242.9		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 880-19603-A-26-B MS
Matrix: Solid
Analysis Batch: 35427

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	65.1		251	312.8		mg/Kg		99	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-19603-A-26-C MSD
Matrix: Solid
Analysis Batch: 35427

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	65.1		251	312.7		mg/Kg		99	90 - 110	0	20

Lab Sample ID: MB 880-35372/1-A
Matrix: Solid
Analysis Batch: 35453

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			09/27/22 10:34	1

Lab Sample ID: LCS 880-35372/2-A
Matrix: Solid
Analysis Batch: 35453

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.6		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-35372/3-A
Matrix: Solid
Analysis Batch: 35453

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	254.6		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-19605-A-38-A MS
Matrix: Solid
Analysis Batch: 35453

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	164	F1	251	457.2	F1	mg/Kg		117	90 - 110		

Lab Sample ID: 880-19605-A-38-B MSD
Matrix: Solid
Analysis Batch: 35453

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	164	F1	251	432.9		mg/Kg		107	90 - 110	5	20

QC Association Summary

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

GC VOA

Prep Batch: 35444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-1	FS01	Total/NA	Solid	5035	
890-3027-2	FS02	Total/NA	Solid	5035	
890-3027-3	FS03	Total/NA	Solid	5035	
890-3027-4	FS04	Total/NA	Solid	5035	
890-3027-5	FS05	Total/NA	Solid	5035	
890-3027-6	FS06	Total/NA	Solid	5035	
890-3027-7	FS07	Total/NA	Solid	5035	
890-3027-8	FS08	Total/NA	Solid	5035	
890-3027-9	FS09	Total/NA	Solid	5035	
890-3027-10	FS10	Total/NA	Solid	5035	
MB 880-35444/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-35444/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-35444/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3027-1 MS	FS01	Total/NA	Solid	5035	
890-3027-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 35468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-1	FS01	Total/NA	Solid	8021B	35444
890-3027-2	FS02	Total/NA	Solid	8021B	35444
890-3027-3	FS03	Total/NA	Solid	8021B	35444
890-3027-4	FS04	Total/NA	Solid	8021B	35444
890-3027-5	FS05	Total/NA	Solid	8021B	35444
890-3027-6	FS06	Total/NA	Solid	8021B	35444
890-3027-7	FS07	Total/NA	Solid	8021B	35444
890-3027-8	FS08	Total/NA	Solid	8021B	35444
890-3027-9	FS09	Total/NA	Solid	8021B	35444
890-3027-10	FS10	Total/NA	Solid	8021B	35444
MB 880-35444/5-A	Method Blank	Total/NA	Solid	8021B	35444
LCS 880-35444/1-A	Lab Control Sample	Total/NA	Solid	8021B	35444
LCSD 880-35444/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	35444
890-3027-1 MS	FS01	Total/NA	Solid	8021B	35444
890-3027-1 MSD	FS01	Total/NA	Solid	8021B	35444

Analysis Batch: 35535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-1	FS01	Total/NA	Solid	Total BTEX	
890-3027-2	FS02	Total/NA	Solid	Total BTEX	
890-3027-3	FS03	Total/NA	Solid	Total BTEX	
890-3027-4	FS04	Total/NA	Solid	Total BTEX	
890-3027-5	FS05	Total/NA	Solid	Total BTEX	
890-3027-6	FS06	Total/NA	Solid	Total BTEX	
890-3027-7	FS07	Total/NA	Solid	Total BTEX	
890-3027-8	FS08	Total/NA	Solid	Total BTEX	
890-3027-9	FS09	Total/NA	Solid	Total BTEX	
890-3027-10	FS10	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

GC Semi VOA

Prep Batch: 35263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-1	FS01	Total/NA	Solid	8015NM Prep	
890-3027-2	FS02	Total/NA	Solid	8015NM Prep	
890-3027-3	FS03	Total/NA	Solid	8015NM Prep	
890-3027-4	FS04	Total/NA	Solid	8015NM Prep	
890-3027-6	FS06	Total/NA	Solid	8015NM Prep	
890-3027-8	FS08	Total/NA	Solid	8015NM Prep	
890-3027-10	FS10	Total/NA	Solid	8015NM Prep	
MB 880-35263/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35263/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35263/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3027-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-3027-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 35322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-1	FS01	Total/NA	Solid	8015B NM	35263
890-3027-2	FS02	Total/NA	Solid	8015B NM	35263
890-3027-3	FS03	Total/NA	Solid	8015B NM	35263
890-3027-4	FS04	Total/NA	Solid	8015B NM	35263
890-3027-6	FS06	Total/NA	Solid	8015B NM	35263
890-3027-8	FS08	Total/NA	Solid	8015B NM	35263
890-3027-10	FS10	Total/NA	Solid	8015B NM	35263
MB 880-35263/1-A	Method Blank	Total/NA	Solid	8015B NM	35263
LCS 880-35263/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35263
LCSD 880-35263/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35263
890-3027-1 MS	FS01	Total/NA	Solid	8015B NM	35263
890-3027-1 MSD	FS01	Total/NA	Solid	8015B NM	35263

Analysis Batch: 35396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-1	FS01	Total/NA	Solid	8015 NM	
890-3027-2	FS02	Total/NA	Solid	8015 NM	
890-3027-3	FS03	Total/NA	Solid	8015 NM	
890-3027-4	FS04	Total/NA	Solid	8015 NM	
890-3027-5	FS05	Total/NA	Solid	8015 NM	
890-3027-6	FS06	Total/NA	Solid	8015 NM	
890-3027-7	FS07	Total/NA	Solid	8015 NM	
890-3027-8	FS08	Total/NA	Solid	8015 NM	
890-3027-9	FS09	Total/NA	Solid	8015 NM	
890-3027-10	FS10	Total/NA	Solid	8015 NM	

Prep Batch: 35610

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-5	FS05	Total/NA	Solid	8015NM Prep	
890-3027-7	FS07	Total/NA	Solid	8015NM Prep	
890-3027-9	FS09	Total/NA	Solid	8015NM Prep	
MB 880-35610/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35610/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35610/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-19720-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-19720-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 35641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-5	FS05	Total/NA	Solid	8015B NM	35610
890-3027-7	FS07	Total/NA	Solid	8015B NM	35610
890-3027-9	FS09	Total/NA	Solid	8015B NM	35610
MB 880-35610/1-A	Method Blank	Total/NA	Solid	8015B NM	35610
LCS 880-35610/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35610
LCSD 880-35610/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35610
880-19720-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	35610
880-19720-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35610

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Leach Batch: 35317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-1	FS01	Soluble	Solid	DI Leach	
890-3027-2	FS02	Soluble	Solid	DI Leach	
890-3027-3	FS03	Soluble	Solid	DI Leach	
890-3027-4	FS04	Soluble	Solid	DI Leach	
890-3027-5	FS05	Soluble	Solid	DI Leach	
890-3027-6	FS06	Soluble	Solid	DI Leach	
MB 880-35317/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35317/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35317/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19603-A-26-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-19603-A-26-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 35372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-7	FS07	Soluble	Solid	DI Leach	
890-3027-8	FS08	Soluble	Solid	DI Leach	
890-3027-9	FS09	Soluble	Solid	DI Leach	
890-3027-10	FS10	Soluble	Solid	DI Leach	
MB 880-35372/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-35372/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-35372/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-19605-A-38-A MS	Matrix Spike	Soluble	Solid	DI Leach	
880-19605-A-38-B MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 35427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-1	FS01	Soluble	Solid	300.0	35317
890-3027-2	FS02	Soluble	Solid	300.0	35317
890-3027-3	FS03	Soluble	Solid	300.0	35317
890-3027-4	FS04	Soluble	Solid	300.0	35317
890-3027-5	FS05	Soluble	Solid	300.0	35317
890-3027-6	FS06	Soluble	Solid	300.0	35317
MB 880-35317/1-A	Method Blank	Soluble	Solid	300.0	35317
LCS 880-35317/2-A	Lab Control Sample	Soluble	Solid	300.0	35317
LCSD 880-35317/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35317
880-19603-A-26-B MS	Matrix Spike	Soluble	Solid	300.0	35317
880-19603-A-26-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35317

QC Association Summary

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

HPLC/IC

Analysis Batch: 35453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3027-7	FS07	Soluble	Solid	300.0	35372
890-3027-8	FS08	Soluble	Solid	300.0	35372
890-3027-9	FS09	Soluble	Solid	300.0	35372
890-3027-10	FS10	Soluble	Solid	300.0	35372
MB 880-35372/1-A	Method Blank	Soluble	Solid	300.0	35372
LCS 880-35372/2-A	Lab Control Sample	Soluble	Solid	300.0	35372
LCSD 880-35372/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	35372
880-19605-A-38-A MS	Matrix Spike	Soluble	Solid	300.0	35372
880-19605-A-38-B MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	35372

Lab Chronicle

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS01
Date Collected: 09/21/22 11:40
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-1
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	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 11:46	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35263	09/23/22 11:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35322	09/24/22 21:38	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	35317	09/23/22 17:46	SMC	EET MID
Soluble	Analysis	300.0		1			35427	09/27/22 02:09	CH	EET MID

Client Sample ID: FS02
Date Collected: 09/21/22 14:30
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-2
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			5.05 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 12:06	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35263	09/23/22 11:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35322	09/24/22 22:42	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	35317	09/23/22 17:46	SMC	EET MID
Soluble	Analysis	300.0		1			35427	09/27/22 02:13	CH	EET MID

Client Sample ID: FS03
Date Collected: 09/21/22 14:35
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 12:26	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35263	09/23/22 11:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35322	09/24/22 23:03	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	35317	09/23/22 17:46	SMC	EET MID
Soluble	Analysis	300.0		1			35427	09/27/22 02:18	CH	EET MID

Client Sample ID: FS04
Date Collected: 09/21/22 14:40
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 12:47	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS04
Date Collected: 09/21/22 14:40
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-4
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			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35263	09/23/22 11:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35322	09/24/22 23:24	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	35317	09/23/22 17:46	SMC	EET MID
Soluble	Analysis	300.0		1			35427	09/27/22 02:23	CH	EET MID

Client Sample ID: FS05
Date Collected: 09/21/22 14:45
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 13:07	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35610	09/28/22 13:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/29/22 23:39	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	35317	09/23/22 17:46	SMC	EET MID
Soluble	Analysis	300.0		1			35427	09/27/22 02:28	CH	EET MID

Client Sample ID: FS06
Date Collected: 09/21/22 09:30
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 13:28	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35263	09/23/22 11:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35322	09/25/22 00:06	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35317	09/23/22 17:46	SMC	EET MID
Soluble	Analysis	300.0		1			35427	09/27/22 02:33	CH	EET MID

Client Sample ID: FS07
Date Collected: 09/21/22 09:45
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 13:48	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35610	09/28/22 13:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/30/22 00:00	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Client Sample ID: FS07
Date Collected: 09/21/22 09:45
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	35372	09/26/22 10:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35453	09/27/22 14:13	CH	EET MID

Client Sample ID: FS08
Date Collected: 09/21/22 10:02
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 14:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	35263	09/23/22 11:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35322	09/25/22 00:49	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	35372	09/26/22 10:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35453	09/27/22 14:19	CH	EET MID

Client Sample ID: FS09
Date Collected: 09/21/22 10:20
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 14:29	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35610	09/28/22 13:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35641	09/30/22 00:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	35372	09/26/22 10:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35453	09/27/22 14:25	CH	EET MID

Client Sample ID: FS10
Date Collected: 09/21/22 11:30
Date Received: 09/21/22 15:17

Lab Sample ID: 890-3027-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	35444	09/26/22 16:11	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	35468	09/27/22 14:49	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			35535	09/27/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			35396	09/26/22 12:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35263	09/23/22 11:06	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35322	09/25/22 01:31	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	35372	09/26/22 10:04	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	35453	09/27/22 14:31	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

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: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

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: Fed 9 Com 1

Job ID: 890-3027-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3027-1	FS01	Solid	09/21/22 11:40	09/21/22 15:17	2'
890-3027-2	FS02	Solid	09/21/22 14:30	09/21/22 15:17	1'
890-3027-3	FS03	Solid	09/21/22 14:35	09/21/22 15:17	0.5'
890-3027-4	FS04	Solid	09/21/22 14:40	09/21/22 15:17	0.5'
890-3027-5	FS05	Solid	09/21/22 14:45	09/21/22 15:17	0.5'
890-3027-6	FS06	Solid	09/21/22 09:30	09/21/22 15:17	1'
890-3027-7	FS07	Solid	09/21/22 09:45	09/21/22 15:17	1'
890-3027-8	FS08	Solid	09/21/22 10:02	09/21/22 15:17	1'
890-3027-9	FS09	Solid	09/21/22 10:20	09/21/22 15:17	1'
890-3027-10	FS10	Solid	09/21/22 11:30	09/21/22 15:17	1.5'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Josh Adams
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 Natl Parks Hwy	Address:	3122 Nati. Parki Hwy
City, State ZIP:	Carlsbad NM	City, State ZIP:	Carlsbad NM 88220
Phone:	3035178437 Email:		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:	Fed 9 com 1	Turn Around	☐ Routine ☑ Rush
Project Number:	030202407 3	Due Date:	3 day TAT
Project Location:	Lea County NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	LC		
PO #:	NA		

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	28.2
Total Containers:		Corrected Temperature:	28.0

ANALYSIS REQUEST

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: Btex	TPH	Chlorides	Sample Comments
FS01	S	9-21-22	1140	2	C	1				CC # A762361SM
FS02		9-21-22	1430	1						Maintenance
FS03		9-21-22	1435	0.5						order: 17230591
FS04		9-21-22	1440	0.5						
FS05		9-21-22	1445	0.5						Incident #:
FS06		9-21-22	930	1						NAPP2218487Z1
FS07		9-21-22	945	1						
FS08			1005	1						also email
FS09			1020	1						kjennings@ensolum.com
FS10			1130	1.5'						

890-3027 Chain of Custody

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9-21-22 1517	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3027-1
SDG Number: Lea County NM

Login Number: 3027
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	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: 890-3027-1
SDG Number: Lea County NM

Login Number: 3027
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/23/22 10:43 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-3186-1
Laboratory Sample Delivery Group: 03D2024073
Client Project/Site: Federal Com 9

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
10/17/2022 11:33:25 AM

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

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

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

Client: Ensolum
Project/Site: Federal Com 9

Laboratory Job ID: 890-3186-1
SDG: 03D2024073

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3186-1
Project/Site: Federal Com 9 SDG: 03D2024073

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Job ID: 890-3186-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3186-1

Receipt
The samples were received on 10/7/2022 1:35 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 2.6°C

Receipt Exceptions
The following samples analyzed were received and analyzed from an unpreserved bulk soil jar: FS10A (890-3186-1), FS05A (890-3186-2), FS08A (890-3186-3) and FS07A (890-3186-4).

GC VOA
Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-36976 and analytical batch 880-37017 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-20395-A-1-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS05A (890-3186-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36976 and analytical batch 880-37017 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-36688 and analytical batch 880-36637 was outside the upper control limits.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-36688 and analytical batch 880-36637 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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 880-36531 and analytical batch 880-36746 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: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Client Sample ID: FS10A

Lab Sample ID: 890-3186-1
Matrix: Solid
Date Collected: 10/07/22 10:20
Date Received: 10/07/22 13:35
Sample Depth: 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		10/14/22 14:04	10/15/22 22:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 22:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 22:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/14/22 14:04	10/15/22 22:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 22:07	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/14/22 14:04	10/15/22 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*10/14/22 14:04*	*10/15/22 22:07*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*10/14/22 14:04*	*10/15/22 22:07*	*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			10/17/22 12:04	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			10/12/22 10:56	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 *1	49.9		mg/Kg		10/11/22 14:40	10/12/22 04:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/11/22 14:40	10/12/22 04:17	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/11/22 14:40	10/12/22 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*10/11/22 14:40*	*10/12/22 04:17*	*1*
o-Terphenyl	*78*		*70 - 130*	*10/11/22 14:40*	*10/12/22 04:17*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**388**		4.99		mg/Kg			10/12/22 05:01	1

Client Sample ID: FS05A

Lab Sample ID: 890-3186-2
Matrix: Solid
Date Collected: 10/07/22 10:25
Date Received: 10/07/22 13:35
Sample Depth: 1

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		10/14/22 14:04	10/15/22 22:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 22:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 22:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/14/22 14:04	10/15/22 22:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 22:28	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/14/22 14:04	10/15/22 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*10/14/22 14:04*	*10/15/22 22:28*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Client Sample ID: FS05A

Lab Sample ID: 890-3186-2
Matrix: Solid
Date Collected: 10/07/22 10:25
Date Received: 10/07/22 13:35
Sample Depth: 1

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*10/14/22 14:04*	*10/15/22 22:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/17/22 12:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**892**		50.0	mg/Kg			10/12/22 10:56	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 *1	50.0	mg/Kg		10/11/22 14:40	10/12/22 04:39	1
Diesel Range Organics (Over C10-C28)	**757**		50.0	mg/Kg		10/11/22 14:40	10/12/22 04:39	1
OII Range Organics (Over C28-C36)	**135**		50.0	mg/Kg		10/11/22 14:40	10/12/22 04:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*10/11/22 14:40*	*10/12/22 04:39*	*1*
o-Terphenyl	*96*		*70 - 130*	*10/11/22 14:40*	*10/12/22 04:39*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**127**		4.97	mg/Kg			10/12/22 05:06	1

Client Sample ID: FS08A

Lab Sample ID: 890-3186-3
Matrix: Solid
Date Collected: 10/07/22 10:35
Date Received: 10/07/22 13:35
Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/14/22 14:04	10/15/22 22:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/14/22 14:04	10/15/22 22:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/14/22 14:04	10/15/22 22:49	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		10/14/22 14:04	10/15/22 22:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/14/22 14:04	10/15/22 22:49	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		10/14/22 14:04	10/15/22 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*10/14/22 14:04*	*10/15/22 22:49*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*10/14/22 14:04*	*10/15/22 22:49*	*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			10/17/22 12:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/12/22 10:56	1

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Client Sample Results

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Client Sample ID: FS08A

Lab Sample ID: 890-3186-3
Matrix: Solid
Date Collected: 10/07/22 10:35
Date Received: 10/07/22 13:35
Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8		mg/Kg		10/11/22 14:40	10/12/22 05:00	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		10/11/22 14:40	10/12/22 05:00	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		10/11/22 14:40	10/12/22 05:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*10/11/22 14:40*	*10/12/22 05:00*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/11/22 14:40*	*10/12/22 05:00*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**98.1**		4.98		mg/Kg			10/12/22 05:23	1

Client Sample ID: FS07A

Lab Sample ID: 890-3186-4
Matrix: Solid
Date Collected: 10/07/22 10:45
Date Received: 10/07/22 13:35
Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/16/22 00:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/16/22 00:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/16/22 00:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/14/22 14:04	10/16/22 00:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/16/22 00:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/14/22 14:04	10/16/22 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*10/14/22 14:04*	*10/16/22 00:32*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*10/14/22 14:04*	*10/16/22 00:32*	*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			10/17/22 12:04	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**180**		49.9		mg/Kg			10/12/22 10:56	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 *1	49.9		mg/Kg		10/11/22 14:40	10/12/22 05:22	1
Diesel Range Organics (Over C10-C28)	**180**		49.9		mg/Kg		10/11/22 14:40	10/12/22 05:22	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/11/22 14:40	10/12/22 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*10/11/22 14:40*	*10/12/22 05:22*	*1*
o-Terphenyl	*82*		*70 - 130*	*10/11/22 14:40*	*10/12/22 05:22*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Client Sample ID: FS07A
Date Collected: 10/07/22 10:45
Date Received: 10/07/22 13:35
Sample Depth: 1.5

Lab Sample ID: 890-3186-4
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	121		5.00		mg/Kg			10/12/22 05:28	1

Surrogate Summary

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-20395-A-1-B MS	Matrix Spike	93	97
880-20395-A-1-C MSD	Matrix Spike Duplicate	114	88
890-3186-1	FS10A	110	98
890-3186-2	FS05A	108	69 S1-
890-3186-3	FS08A	117	95
890-3186-4	FS07A	115	81
LCS 880-36976/1-A	Lab Control Sample	86	93
LCSD 880-36976/2-A	Lab Control Sample Dup	84	94
MB 880-36976/5-A	Method Blank	96	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)
880-20176-A-1-H MS	Matrix Spike	107	110
880-20176-A-1-I MSD	Matrix Spike Duplicate	96	100
890-3186-1	FS10A	70	78
890-3186-2	FS05A	90	96
890-3186-3	FS08A	93	99
890-3186-4	FS07A	73	82
LCS 880-36688/2-A	Lab Control Sample	92	113
LCSD 880-36688/3-A	Lab Control Sample Dup	103	121
MB 880-36688/1-A	Method Blank	11 S1-	11 S1-

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36976/5-A
Matrix: Solid
Analysis Batch: 37017

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36976

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 19:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 19:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 19:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/14/22 14:04	10/15/22 19:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/14/22 14:04	10/15/22 19:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/14/22 14:04	10/15/22 19:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*10/14/22 14:04*	*10/15/22 19:40*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*10/14/22 14:04*	*10/15/22 19:40*	*1*

Lab Sample ID: LCS 880-36976/1-A
Matrix: Solid
Analysis Batch: 37017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36976

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1035		mg/Kg		103	70 - 130		
Toluene			0.100	0.09984		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.08928		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1795		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.09130		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-36976/2-A
Matrix: Solid
Analysis Batch: 37017

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36976

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1082		mg/Kg		108	70 - 130	4	35
Toluene			0.100	0.1038		mg/Kg		104	70 - 130	4	35
Ethylbenzene			0.100	0.09363		mg/Kg		94	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1920		mg/Kg		96	70 - 130	7	35
o-Xylene			0.100	0.09683		mg/Kg		97	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 880-20395-A-1-B MS
Matrix: Solid
Analysis Batch: 37017

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 36976

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U F2 F1	0.100	0.08441		mg/Kg		84	70 - 130		
Toluene	<0.00202	U F2 F1	0.100	0.07227		mg/Kg		72	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

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

Lab Sample ID: 880-20395-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37017 — **Prep Batch: 36976**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U F1	0.100	0.05766	F1	mg/Kg		57	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.201	0.1558		mg/Kg		78	70 - 130
o-Xylene	<0.00202	U F1	0.100	0.07839		mg/Kg		78	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-20395-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37017 — **Prep Batch: 36976**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F2 F1	0.0990	0.03276	F2 F1	mg/Kg		33	70 - 130	88	35
Toluene	<0.00202	U F2 F1	0.0990	0.03934	F2 F1	mg/Kg		40	70 - 130	59	35
Ethylbenzene	<0.00202	U F1	0.0990	0.04508	F1	mg/Kg		46	70 - 130	24	35
m-Xylene & p-Xylene	<0.00403	U F1	0.198	0.1249	F1	mg/Kg		63	70 - 130	22	35
o-Xylene	<0.00202	U F1	0.0990	0.06460	F1	mg/Kg		65	70 - 130	19	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

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

Lab Sample ID: MB 880-36688/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 36637 — **Prep Batch: 36688**

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		10/11/22 14:40	10/11/22 20:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/11/22 14:40	10/11/22 20:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/11/22 14:40	10/11/22 20:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*11*	*S1-*	*70 - 130*	*10/11/22 14:40*	*10/11/22 20:40*	*1*
o-Terphenyl	*11*	*S1-*	*70 - 130*	*10/11/22 14:40*	*10/11/22 20:40*	*1*

Lab Sample ID: LCS 880-36688/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 36637 — **Prep Batch: 36688**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	880.8		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	1000	927.8		mg/Kg		93	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

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

Lab Sample ID: LCS 880-36688/2-A
Matrix: Solid
Analysis Batch: 36637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36688

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-36688/3-A
Matrix: Solid
Analysis Batch: 36637

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 36688

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1196	*1	mg/Kg		120	70 - 130	30	20
Diesel Range Organics (Over C10-C28)			1000	992.8		mg/Kg		99	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	121		70 - 130

Lab Sample ID: 880-20176-A-1-H MS
Matrix: Solid
Analysis Batch: 36637

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 36688

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	999	888.3		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	999	1047		mg/Kg		105	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 880-20176-A-1-I MSD
Matrix: Solid
Analysis Batch: 36637

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 36688

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	997	1066		mg/Kg		107	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<49.8	U	997	950.8		mg/Kg		95	70 - 130	10	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	100		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36531/1-A
Matrix: Solid
Analysis Batch: 36746

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			10/12/22 03:11	1

Lab Sample ID: LCS 880-36531/2-A
Matrix: Solid
Analysis Batch: 36746

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.8		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-36531/3-A
Matrix: Solid
Analysis Batch: 36746

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	259.6		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-3183-A-9-B MS
Matrix: Solid
Analysis Batch: 36746

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	90.6	F1	252	349.7		mg/Kg		103	90 - 110		

Lab Sample ID: 890-3183-A-9-C MSD
Matrix: Solid
Analysis Batch: 36746

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	90.6	F1	252	381.2	F1	mg/Kg		115	90 - 110	9	20

QC Association Summary

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

GC VOA

Prep Batch: 36976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3186-1	FS10A	Total/NA	Solid	5035	
890-3186-2	FS05A	Total/NA	Solid	5035	
890-3186-3	FS08A	Total/NA	Solid	5035	
890-3186-4	FS07A	Total/NA	Solid	5035	
MB 880-36976/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36976/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36976/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20395-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-20395-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 37017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3186-1	FS10A	Total/NA	Solid	8021B	36976
890-3186-2	FS05A	Total/NA	Solid	8021B	36976
890-3186-3	FS08A	Total/NA	Solid	8021B	36976
890-3186-4	FS07A	Total/NA	Solid	8021B	36976
MB 880-36976/5-A	Method Blank	Total/NA	Solid	8021B	36976
LCS 880-36976/1-A	Lab Control Sample	Total/NA	Solid	8021B	36976
LCSD 880-36976/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36976
880-20395-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	36976
880-20395-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36976

Analysis Batch: 37146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3186-1	FS10A	Total/NA	Solid	Total BTEX	
890-3186-2	FS05A	Total/NA	Solid	Total BTEX	
890-3186-3	FS08A	Total/NA	Solid	Total BTEX	
890-3186-4	FS07A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 36637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3186-1	FS10A	Total/NA	Solid	8015B NM	36688
890-3186-2	FS05A	Total/NA	Solid	8015B NM	36688
890-3186-3	FS08A	Total/NA	Solid	8015B NM	36688
890-3186-4	FS07A	Total/NA	Solid	8015B NM	36688
MB 880-36688/1-A	Method Blank	Total/NA	Solid	8015B NM	36688
LCS 880-36688/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	36688
LCSD 880-36688/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	36688
880-20176-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	36688
880-20176-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	36688

Prep Batch: 36688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3186-1	FS10A	Total/NA	Solid	8015NM Prep	
890-3186-2	FS05A	Total/NA	Solid	8015NM Prep	
890-3186-3	FS08A	Total/NA	Solid	8015NM Prep	
890-3186-4	FS07A	Total/NA	Solid	8015NM Prep	
MB 880-36688/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-36688/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

GC Semi VOA (Continued)

Prep Batch: 36688 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-36688/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-20176-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-20176-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3186-1	FS10A	Total/NA	Solid	8015 NM	
890-3186-2	FS05A	Total/NA	Solid	8015 NM	
890-3186-3	FS08A	Total/NA	Solid	8015 NM	
890-3186-4	FS07A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3186-1	FS10A	Soluble	Solid	DI Leach	
890-3186-2	FS05A	Soluble	Solid	DI Leach	
890-3186-3	FS08A	Soluble	Solid	DI Leach	
890-3186-4	FS07A	Soluble	Solid	DI Leach	
MB 880-36531/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36531/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36531/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3183-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3183-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3186-1	FS10A	Soluble	Solid	300.0	36531
890-3186-2	FS05A	Soluble	Solid	300.0	36531
890-3186-3	FS08A	Soluble	Solid	300.0	36531
890-3186-4	FS07A	Soluble	Solid	300.0	36531
MB 880-36531/1-A	Method Blank	Soluble	Solid	300.0	36531
LCS 880-36531/2-A	Lab Control Sample	Soluble	Solid	300.0	36531
LCSD 880-36531/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36531
890-3183-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	36531
890-3183-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36531

Lab Chronicle

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Client Sample ID: FS10A
Date Collected: 10/07/22 10:20
Date Received: 10/07/22 13:35

Lab Sample ID: 890-3186-1
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	36976	10/14/22 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37017	10/15/22 22:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37146	10/17/22 12:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			36749	10/12/22 10:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	36688	10/11/22 14:40	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36637	10/12/22 04:17	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36531	10/10/22 10:09	CH	EET MID
Soluble	Analysis	300.0		1			36746	10/12/22 05:01	CH	EET MID

Client Sample ID: FS05A
Date Collected: 10/07/22 10:25
Date Received: 10/07/22 13:35

Lab Sample ID: 890-3186-2
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	36976	10/14/22 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37017	10/15/22 22:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37146	10/17/22 12:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			36749	10/12/22 10:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	36688	10/11/22 14:40	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36637	10/12/22 04:39	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	36531	10/10/22 10:09	CH	EET MID
Soluble	Analysis	300.0		1			36746	10/12/22 05:06	CH	EET MID

Client Sample ID: FS08A
Date Collected: 10/07/22 10:35
Date Received: 10/07/22 13:35

Lab Sample ID: 890-3186-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	36976	10/14/22 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37017	10/15/22 22:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37146	10/17/22 12:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			36749	10/12/22 10:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	36688	10/11/22 14:40	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36637	10/12/22 05:00	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	36531	10/10/22 10:09	CH	EET MID
Soluble	Analysis	300.0		1			36746	10/12/22 05:23	CH	EET MID

Client Sample ID: FS07A
Date Collected: 10/07/22 10:45
Date Received: 10/07/22 13:35

Lab Sample ID: 890-3186-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36976	10/14/22 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37017	10/16/22 00:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37146	10/17/22 12:04	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Client Sample ID: FS07A

Date Collected: 10/07/22 10:45
Date Received: 10/07/22 13:35

Lab Sample ID: 890-3186-4

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			36749	10/12/22 10:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	36688	10/11/22 14:40	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	36637	10/12/22 05:22	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36531	10/10/22 10:09	CH	EET MID
Soluble	Analysis	300.0		1			36746	10/12/22 05:28	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: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

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: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

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: Federal Com 9

Job ID: 890-3186-1
SDG: 03D2024073

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3186-1	FS10A	Solid	10/07/22 10:20	10/07/22 13:35	2
890-3186-2	FS05A	Solid	10/07/22 10:25	10/07/22 13:35	1
890-3186-3	FS08A	Solid	10/07/22 10:35	10/07/22 13:35	1.5
890-3186-4	FS07A	Solid	10/07/22 10:45	10/07/22 13:35	1.5

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Chain of Custody

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

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Work Order No: _____

Project Manager:	Kalei Jennings	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:	Email:	kjennings@ensolum.com	

Work Order Comments

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

Project Name:	Federal Com 9	Turn Around	
Project Number:	03D2024073	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	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:	TXM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.8
Total Containers:		Corrected Temperature:	2.6

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS10A	S	10.07.22	1020	2'	G	1	X	X	X
FS05A	S	10.07.23	1025	1'	G	1	X	X	X
FS08A	S	10.07.24	1035	1.5'	G	1	X	X	X
FS07A	S	10.07.25	1045	1.5'	G	1	X	X	X

890-3186 Chain of Custody

Preservative Codes

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

Sample Comments

Incident Number
NAPP2218848721

10.7.22

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		10.7.22 1335			
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3186-1
SDG Number: 03D2024073

Login Number: 3186
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: 890-3186-1
SDG Number: 03D2024073

Login Number: 3186
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/10/22 08:41 AM

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

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-20574-1
Client Project/Site: Federal COM 9

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

Attn: Josh Adams

JKramer

Authorized for release by:
10/24/2022 3:59:51 PM

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

Client: Ensolum
Project/Site: Federal COM 9

Laboratory Job ID: 880-20574-1

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 880-20574-1
Project/Site: Federal COM 9

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Federal COM 9

Job ID: 880-20574-1

Job ID: 880-20574-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-20574-1

Receipt
The samples were received on 10/20/2022 12:24 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 3.5°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS05B (880-20574-1) and FS07B (880-20574-2).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-20550-A-2-D). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS05B (880-20574-1). 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
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-37355 and analytical batch 880-37359 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-37355/2-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-37421 and analytical batch 880-37493 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.The associated samples are: FS05B (880-20574-1), FS07B (880-20574-2), (880-20574-A-1-C MS) and (880-20574-A-1-D MSD).

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: Federal COM 9

Job ID: 880-20574-1

Client Sample ID: FS05B

Lab Sample ID: 880-20574-1
Matrix: Solid
Date Collected: 10/18/22 14:21
Date Received: 10/20/22 12:24
Sample Depth: 1.25

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		10/21/22 11:55	10/21/22 14:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/21/22 11:55	10/21/22 14:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/21/22 11:55	10/21/22 14:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/21/22 11:55	10/21/22 14:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/21/22 11:55	10/21/22 14:28	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/21/22 11:55	10/21/22 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*37*	*S1-*	*70 - 130*	*10/21/22 11:55*	*10/21/22 14:28*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*10/21/22 11:55*	*10/21/22 14:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/24/22 15:29	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			10/21/22 10:56	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		10/20/22 15:00	10/20/22 20:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/20/22 15:00	10/20/22 20:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/20/22 15:00	10/20/22 20:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*10/20/22 15:00*	*10/20/22 20:02*	*1*
o-Terphenyl	*98*		*70 - 130*	*10/20/22 15:00*	*10/20/22 20:02*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**74.7**	**F1**	5.04		mg/Kg			10/22/22 12:46	1

Client Sample ID: FS07B

Lab Sample ID: 880-20574-2
Matrix: Solid
Date Collected: 10/18/22 14:32
Date Received: 10/20/22 12:24
Sample Depth: 1.75

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		10/21/22 11:55	10/21/22 14:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/21/22 11:55	10/21/22 14:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/21/22 11:55	10/21/22 14:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/21/22 11:55	10/21/22 14:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/21/22 11:55	10/21/22 14:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/21/22 11:55	10/21/22 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*10/21/22 11:55*	*10/21/22 14:48*	*1*

Client Sample Results

Client: Ensolum
Job ID: 880-20574-1
Project/Site: Federal COM 9

Client Sample ID: FS07B
Lab Sample ID: 880-20574-2
Date Collected: 10/18/22 14:32
Matrix: Solid
Date Received: 10/20/22 12:24
Sample Depth: 1.75

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*10/21/22 11:55*	*10/21/22 14:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/24/22 15:29	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			10/21/22 10:56	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		10/20/22 15:00	10/20/22 20:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/20/22 15:00	10/20/22 20:23	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/20/22 15:00	10/20/22 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*10/20/22 15:00*	*10/20/22 20:23*	*1*
o-Terphenyl	*103*		*70 - 130*	*10/20/22 15:00*	*10/20/22 20:23*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.3**		5.00		mg/Kg			10/22/22 13:01	1

Surrogate Summary

Client: Ensolum
Project/Site: Federal COM 9

Job ID: 880-20574-1

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)
880-20550-A-2-F MS	Matrix Spike	98	89
880-20550-A-2-G MSD	Matrix Spike Duplicate	90	88
880-20574-1	FS05B	37 S1-	86
880-20574-2	FS07B	115	93
LCS 880-37402/1-A	Lab Control Sample	86	92
LCSD 880-37402/2-A	Lab Control Sample Dup	92	91
MB 880-37402/5-A	Method Blank	105	86

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-20551-A-11-C MS	Matrix Spike	77	78
880-20551-A-11-D MSD	Matrix Spike Duplicate	72	72
880-20574-1	FS05B	86	98
880-20574-2	FS07B	91	103
LCS 880-37355/2-A	Lab Control Sample	114	133 S1+
LCSD 880-37355/3-A	Lab Control Sample Dup	99	111
MB 880-37355/1-A	Method Blank	119	134 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Federal COM 9

Job ID: 880-20574-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-37402/5-A
Matrix: Solid
Analysis Batch: 37452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37402

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/20/22 11:40	10/21/22 11:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/20/22 11:40	10/21/22 11:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/20/22 11:40	10/21/22 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/20/22 11:40	10/21/22 11:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/20/22 11:40	10/21/22 11:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/20/22 11:40	10/21/22 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*10/20/22 11:40*	*10/21/22 11:18*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*10/20/22 11:40*	*10/21/22 11:18*	*1*

Lab Sample ID: LCS 880-37402/1-A
Matrix: Solid
Analysis Batch: 37452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37402

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09837		mg/Kg		98	70 - 130		
Toluene			0.100	0.09917		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.09313		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1925		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.09576		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 880-37402/2-A
Matrix: Solid
Analysis Batch: 37452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37402

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1096		mg/Kg		110	70 - 130	11	35
Toluene			0.100	0.1114		mg/Kg		111	70 - 130	12	35
Ethylbenzene			0.100	0.1025		mg/Kg		103	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2150		mg/Kg		108	70 - 130	11	35
o-Xylene			0.100	0.1082		mg/Kg		108	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Federal COM 9

Job ID: 880-20574-1

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

Lab Sample ID: MB 880-37355/1-A
Matrix: Solid
Analysis Batch: 37359

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37355

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		10/20/22 08:21	10/20/22 11:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/20/22 08:21	10/20/22 11:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/20/22 08:21	10/20/22 11:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*10/20/22 08:21*	*10/20/22 11:03*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*10/20/22 08:21*	*10/20/22 11:03*	*1*

Lab Sample ID: LCS 880-37355/2-A
Matrix: Solid
Analysis Batch: 37359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37355

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	803.0		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1045		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*133*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-37355/3-A
Matrix: Solid
Analysis Batch: 37359

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37355

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	908.2		mg/Kg		91	70 - 130	12	20
Diesel Range Organics (Over C10-C28)			1000	903.5		mg/Kg		90	70 - 130	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37421/1-A
Matrix: Solid
Analysis Batch: 37493

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			10/22/22 12:31	1

QC Sample Results

Client: Ensolum
Project/Site: Federal COM 9

Job ID: 880-20574-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-37421/2-A
Matrix: Solid
Analysis Batch: 37493

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	253.2		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-37421/3-A
Matrix: Solid
Analysis Batch: 37493

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	254.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-20574-1 MS
Matrix: Solid
Analysis Batch: 37493

Client Sample ID: FS05B
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	74.7	F1	252	253.0	F1	mg/Kg		71	90 - 110		

Lab Sample ID: 880-20574-1 MSD
Matrix: Solid
Analysis Batch: 37493

Client Sample ID: FS05B
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	74.7	F1	252	253.1	F1	mg/Kg		71	90 - 110	0	20

QC Association Summary

Client: Ensolum
Job ID: 880-20574-1
Project/Site: Federal COM 9

GC VOA

Prep Batch: 37402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1	FS05B	Total/NA	Solid	5035	
880-20574-2	FS07B	Total/NA	Solid	5035	
MB 880-37402/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-37402/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37402/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 37452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1	FS05B	Total/NA	Solid	8021B	37402
880-20574-2	FS07B	Total/NA	Solid	8021B	37402
MB 880-37402/5-A	Method Blank	Total/NA	Solid	8021B	37402
LCS 880-37402/1-A	Lab Control Sample	Total/NA	Solid	8021B	37402
LCSD 880-37402/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37402

Analysis Batch: 37696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1	FS05B	Total/NA	Solid	Total BTEX	
880-20574-2	FS07B	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 37355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1	FS05B	Total/NA	Solid	8015NM Prep	
880-20574-2	FS07B	Total/NA	Solid	8015NM Prep	
MB 880-37355/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37355/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-37355/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1	FS05B	Total/NA	Solid	8015B NM	37355
880-20574-2	FS07B	Total/NA	Solid	8015B NM	37355
MB 880-37355/1-A	Method Blank	Total/NA	Solid	8015B NM	37355
LCS 880-37355/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37355
LCSD 880-37355/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37355

Analysis Batch: 37477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1	FS05B	Total/NA	Solid	8015 NM	
880-20574-2	FS07B	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1	FS05B	Soluble	Solid	DI Leach	
880-20574-2	FS07B	Soluble	Solid	DI Leach	
MB 880-37421/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37421/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37421/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-20574-1 MS	FS05B	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Federal COM 9

Job ID: 880-20574-1

HPLC/IC (Continued)

Leach Batch: 37421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1 MSD	FS05B	Soluble	Solid	DI Leach	

Analysis Batch: 37493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20574-1	FS05B	Soluble	Solid	300.0	37421
880-20574-2	FS07B	Soluble	Solid	300.0	37421
MB 880-37421/1-A	Method Blank	Soluble	Solid	300.0	37421
LCS 880-37421/2-A	Lab Control Sample	Soluble	Solid	300.0	37421
LCSD 880-37421/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37421
880-20574-1 MS	FS05B	Soluble	Solid	300.0	37421
880-20574-1 MSD	FS05B	Soluble	Solid	300.0	37421

Lab Chronicle

Client: Ensolum
Job ID: 880-20574-1
Project/Site: Federal COM 9

Client Sample ID: FS05B
Lab Sample ID: 880-20574-1
Date Collected: 10/18/22 14:21
Matrix: Solid
Date Received: 10/20/22 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			37402	MNR	EET MID	10/21/22 11:55
Total/NA	Analysis	8021B		1	37452	MNR	EET MID	10/21/22 14:28
Total/NA	Analysis	Total BTEX		1	37696	SM	EET MID	10/24/22 15:29
Total/NA	Analysis	8015 NM		1	37477	SM	EET MID	10/21/22 10:56
Total/NA	Prep	8015NM Prep			37355	DM	EET MID	10/20/22 15:00
Total/NA	Analysis	8015B NM		1	37359	SM	EET MID	10/20/22 20:02
Soluble	Leach	DI Leach			37421	KS	EET MID	10/20/22 15:21
Soluble	Analysis	300.0		1	37493	SMC	EET MID	10/22/22 12:46

Client Sample ID: FS07B
Lab Sample ID: 880-20574-2
Date Collected: 10/18/22 14:32
Matrix: Solid
Date Received: 10/20/22 12:24

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			37402	MNR	EET MID	10/21/22 11:55
Total/NA	Analysis	8021B		1	37452	MNR	EET MID	10/21/22 14:48
Total/NA	Analysis	Total BTEX		1	37696	SM	EET MID	10/24/22 15:29
Total/NA	Analysis	8015 NM		1	37477	SM	EET MID	10/21/22 10:56
Total/NA	Prep	8015NM Prep			37355	DM	EET MID	10/20/22 15:00
Total/NA	Analysis	8015B NM		1	37359	SM	EET MID	10/20/22 20:23
Soluble	Leach	DI Leach			37421	KS	EET MID	10/20/22 15:21
Soluble	Analysis	300.0		1	37493	SMC	EET MID	10/22/22 13:01

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Job ID: 880-20574-1
Project/Site: Federal COM 9

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 Job ID: 880-20574-1
Project/Site: Federal COM 9

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
Job ID: 880-20574-1
Project/Site: Federal COM 9

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-20574-1	FS05B	Solid	10/18/22 14:21	10/20/22 12:24	1.25
880-20574-2	FS07B	Solid	10/18/22 14:32	10/20/22 12:24	1.75

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: 20574

www.xenco.com Page 1 of 1

Project Manager	JOSH ADAMS	Bill to. (if different)	KALEI JENNINGS
Company Name	Ensolum, LLC	Company Name	ENSOLUM
Address	601 N Marienfeld St Suite 400	Address	
City, State ZIP	Midland, TX 79701	City, State ZIP	
Phone	817-683-2503	Email	JADAMS@ENSOLUM; KJENNINGS@ENSOLUM

Work Order Comments

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

Project Name.	FEDERAL COM 9	Turn Around	☒ Routine ☐ Rush
Project Number		Due Date	5 DAY
Project Location		TAT starts the day received by the lab, if received by 4 30pm	
Sampler's Name.	HADLIE GREEN		
PO #:			

SAMPLE RECEIPT			
Temp Blank.	Yes No	Wet Ice	Yes No
Samples Received Intact:	Yes No	Thermometer ID.	IR8
Cooler Custody Seals.	Yes No N/A	Correction Factor	-.3
Sample Custody Seals.	Yes No N/A	Temperature Reading.	3.8
Total Containers:		Corrected Temperature	3.5

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH 8015	BTEX 8021	CHLORIDES 300
FS05B	SL	10-18-22	1421	1.25	C	1		X	X	X
FS07B	SL	10-18-22	1432	1.75	C	1		X	X	X

Sample Comments: 2-4oz

Incident Number

880-20574 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

Relinquished by: (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 Hadlie Green		10/20/22 1224	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum Job Number: 880-20574-1

Login Number: 20574 **List Source: Eurofins Midland**
List Number: 1
Creator: Rodriguez, Leticia

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

Josh Adams

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Sent: Tuesday, September 20, 2022 9:27 AM
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] COP- Sampling Notification (Week of 09/19/22-09/23/22)

[**EXTERNAL EMAIL**]

Kalei

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.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Tuesday, September 20, 2022 8:02 AM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] COP- Sampling Notification (Week of 09/19/22-09/23/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Monday, September 19, 2022 8:28 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] COP- Sampling Notification (Week of 09/19/22-09/23/22)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

COP plans to complete final sampling activities at the following sites the week of September 19, 2022.

Tuesday (9/20/2022)

- Federal 9 Com/ NAPP2218848721
- Windward 4H Flowline/NAPP2218850477
- Windward 2H CTB Flare Fire/NAPP2222347897

Wednesday (9/21/2022)

- -Federal 9 Com/ NAPP2218848721
- Windward 4H Flowline/NAPP2218850477
- Windward 2H CTB Flare Fire/NAPP2222347897

Thursday (9/22/2022)

- Corvo Federal 4/ NAPP2217430297

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

Josh Adams

From: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Sent: Wednesday, September 28, 2022 11:08 AM
To: Kalei Jennings
Subject: FW: [EXTERNAL] COG- Extension Request- Federal 9 Com 001 (Incident Number NAPP2218848721)

[**EXTERNAL EMAIL**]

FYI

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Sent: Wednesday, September 28, 2022 11:05 AM
To: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Subject: FW: [EXTERNAL] COG- Extension Request- Federal 9 Com 001 (Incident Number NAPP2218848721)

CAUTION:This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Charles

OCD approves your request for a 90-day extension to December 31, 2022 to submit a closure report. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Wednesday, September 28, 2022 9:50 AM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] COG- Extension Request- Federal 9 Com 001 (Incident Number NAPP2218848721)

From: Beauvais, Charles R <Charles.R.Beauvais@conocophillips.com>
Sent: Wednesday, September 28, 2022 9:49 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Esparza, Brittany <Brittany.Esparza@conocophillips.com>
Subject: [EXTERNAL] COG- Extension Request- Federal 9 Com 001 (Incident Number NAPP2218848721)

To Whom It May Concern,

COG Operating, LLC (COG) is requesting an extension for the current deadline of October 2, 2022, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for Federal 9 Com 001 (Incident Number NAPP2218848721). The release was discovered on July 4, 2022, and initial site assessment activities have been completed. The most recent laboratory analytical results indicate additional excavation activities are required to remove residual impacted soil. In order to complete additional remediation activities and submit a remediation work plan or closure report, COG requests a 90-day extension of this deadline until December 31, 2022.

Respectfully,

Charles R. Beauvais II

Senior Environmental Engineer | Environmental Operations | **ConocoPhillips**
(M) 575-988-2043
Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.

ConocoPhillips

Josh Adams

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Sent: Thursday, September 29, 2022 2:41 PM
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] COP- Sampling Notification (10/3/22-10/7/22)

[**EXTERNAL EMAIL**]

Kalei

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.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Thursday, September 29, 2022 1:57 PM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] COP- Sampling Notification (10/3/22-10/7/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Thursday, September 29, 2022 11:14 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] COP- Sampling Notification (10/3/22-10/7/22)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

ConocoPhillips (COP) plans to complete final sampling activities at the following sites the week of October 3, 2022.

Friday (10/7/2022)

- Federal 9 Com 001/ NAPP2218848721

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 159179

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 159179
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	12/14/2022