ENSOLUM

December 13, 2022

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

Re: Closure Request
Leamex #018 Flowline
Incident Number NAPP2229947721
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document assessment and soil sampling activities performed at the Leamex #018 Flowline (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 and crude oil off pad caused by a flowline failure. Based on Site assessment, excavation activities, and laboratory analytical results from soil sampling events, Maverick is reqesting closure for Incident Number NAPP2229947721.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 16, Township 17 South, Range 33 East, in Lea County, New Mexico (32.830697° N, 103.662348° W) and is associated with oil and gas exploration and production operations on surface land owned and managed by the State of New Mexico.

On October 18, 2022, a flowline failure caused the release of approximately 2.3 barrels (bbls) of produced water and 1.0 bbl of crude oil into the surrounding pasture area. No free-standing fluids were recovered but initial response and removal of saturated soils from the release area were completed. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on October 24, 2022. The release was assigned Incident Number NAPP2229947721.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the 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 greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with

depth to groundwater data is United States Geologic Survey (USGS) permitted well 324939103394501, located approximately 1,099 feet south of the Site. The groundwater well has a reported depth to groundwater of 172 feet bgs and total depth depth of 198 feet bgs. Ground surface elevation at the groundwater well location is 4,177 feet above mean sea level (amsl), which is approximately 12 feet higher in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is an intermitent stream, located approximately 9,461 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, or church. The Site is within 300 feet of a mapped 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): 100 mg/kg
- Chloride: 600 mg/kg

INITIAL SITE ASSESSMENT ACTIVITIES

On October 27, 2022, Ensolum evaluated the release based on information provided on the Form C-141 and visual observations. In total, six soil samples were collected during the initial Site assesment and delineation soil sampling activities. Soil samples SS01, SS02, and SS04 were collected within the release extent at a depth of 0.2 feet bgs, to assess surficial soils within the release. Soil samples SS03, SS05, and SS06 were collected in each cardinal direction of the relase to verify the lateral extent. On November 28, 2022, Ensolum returned to the Site to collect an additional lateral delineation sample (SS07) south of the release extent to further confirm the lateral extent.

All soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the Site visit. A photographic 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 the following chemcials of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for soil samples SS01, SS02, and SS04 indicated TPH and/or chloride concentrations exceeded the Site Closure Criteria. Laboratory analytical results for soil samples SS03, SS05, SS06, and SS07, collected outside the release extent indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

EXCAVATION ACTIVITIES

Between October 27 and November 2, 2022, excavation activities were conducted at the Site based on the results of the initial assessment. Excavation activities were performed via hand shoveling and back-hoe to depths ranging from 2 feet to 3 feet bgs. To direct excavation activities, soil was field screened for VOCs and chloride. On November 2, 2022, Ensolum personnel conducted final confirmation sampling after impacted soil had been removed. Photographic documentation of the excavation activities is included in Appendix C.

Following removal of impacted soil, eleven 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS11 were collected from the floor of the excavation, ranging from 2 feet to 3 feet bgs. Composite soil samples SW01 through SW05 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 3 feet bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 3.

Laboratory analytical results for excavation floor and sidewall samples collected at the terminal depth/extent of each composite soil sample location indicated all COC concentrations were compliant with the Site Closure Criteria, which are the most stringent standards from *Table I*. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

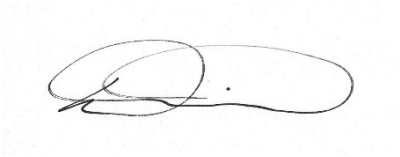
The excavation measured approximately 2,152 square feet in areal extent. A total of approximately 239 cubic yards of impacted soil were removed during excavation activities. The impacted soil was transported and properly disposed of at the R360 Disposal Facility in Hobbs, New Mexico. After laboratory analytical results for the confirmation soil samples were received, the excavation was backfilled.

CLOSURE REQUEST

Based on confirmation soil sample laboratory analytical results compliant with most stringent Closure Criteria from *Table I*, excavation activities have successfully remediated the produced water and crude oil impacts at the Site. Delineation soil samples collected outside the release extent and the excavation sidewall samples successfully define the edge of the release. Maverick believes these remedial actions have been protective of human health, the environment, and groundwater. As such, Maverick respectfully requests closure for Incident Number NAPP2229947721. The Final C-141 is included in Appendix A and required notifications are included as Appendix E.

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

Sincerely,
Ensolum, LLC



Josh Adams, PG
Project Geologist

Daniel R. Moir, PG
Senior Managing Geologist

cc: Bryce Wagoner, Maverick Permian, LLC
New Mexico State Land Office

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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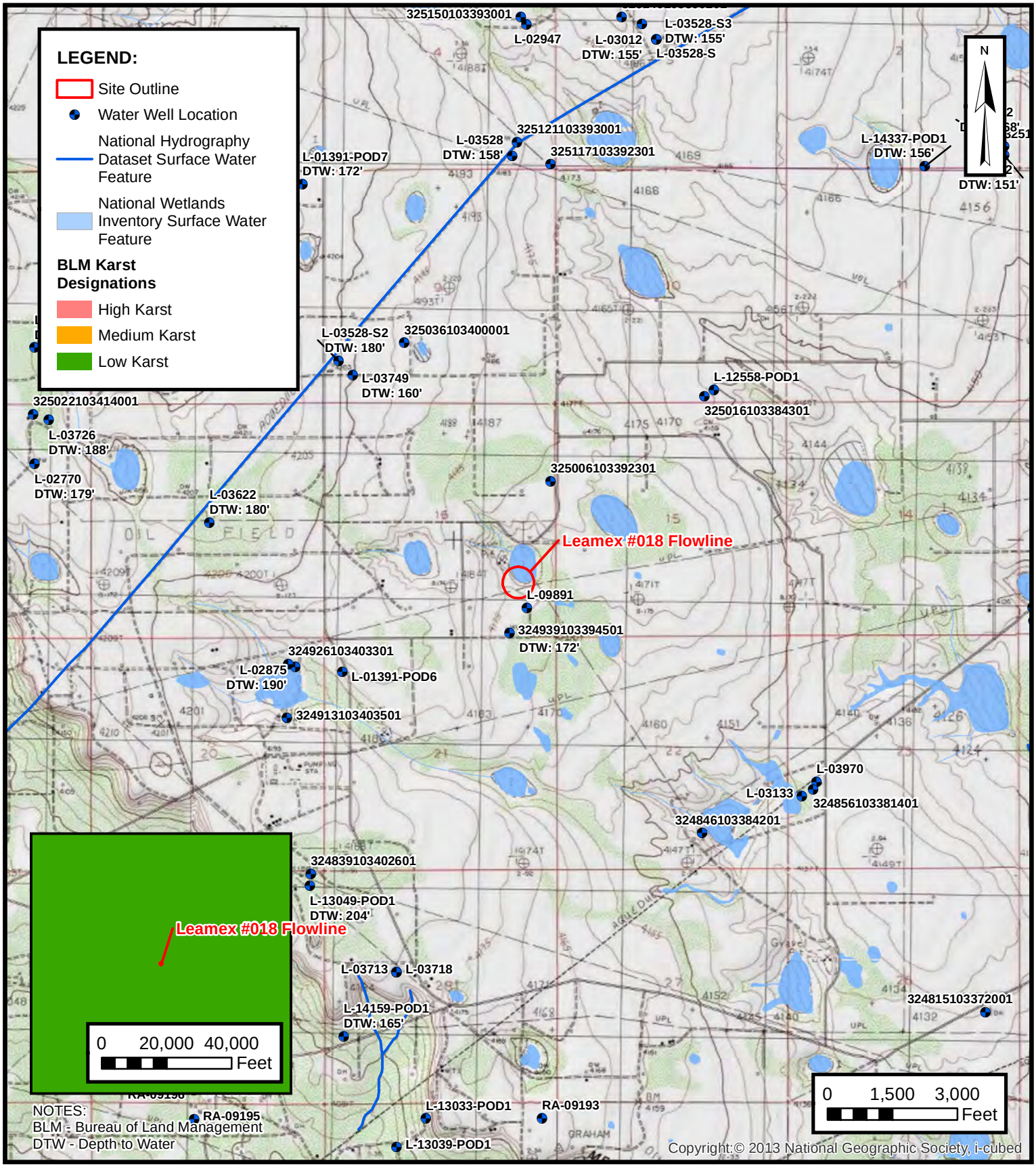
FIGURES



NOTES:
BLM - Bureau of Land Management
DTW - Depth to Water

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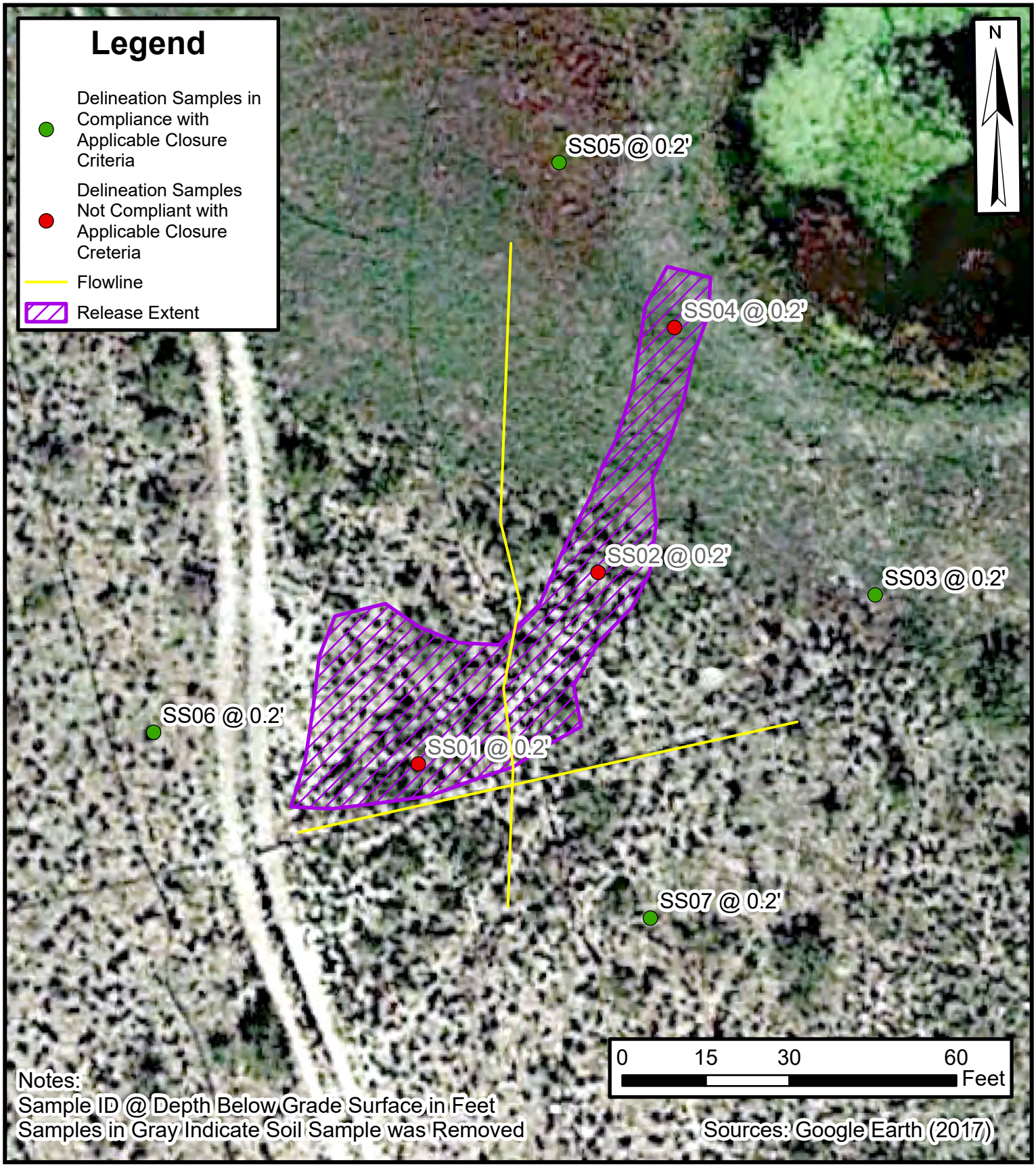
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

MAVERICK PERMIAN LLC
LEAMEX #018 FLOWLINE
Incident Number NAPP2229947721
Unit P Sec 16 T17S R33E
Lea County, New Mexico

FIGURE
1



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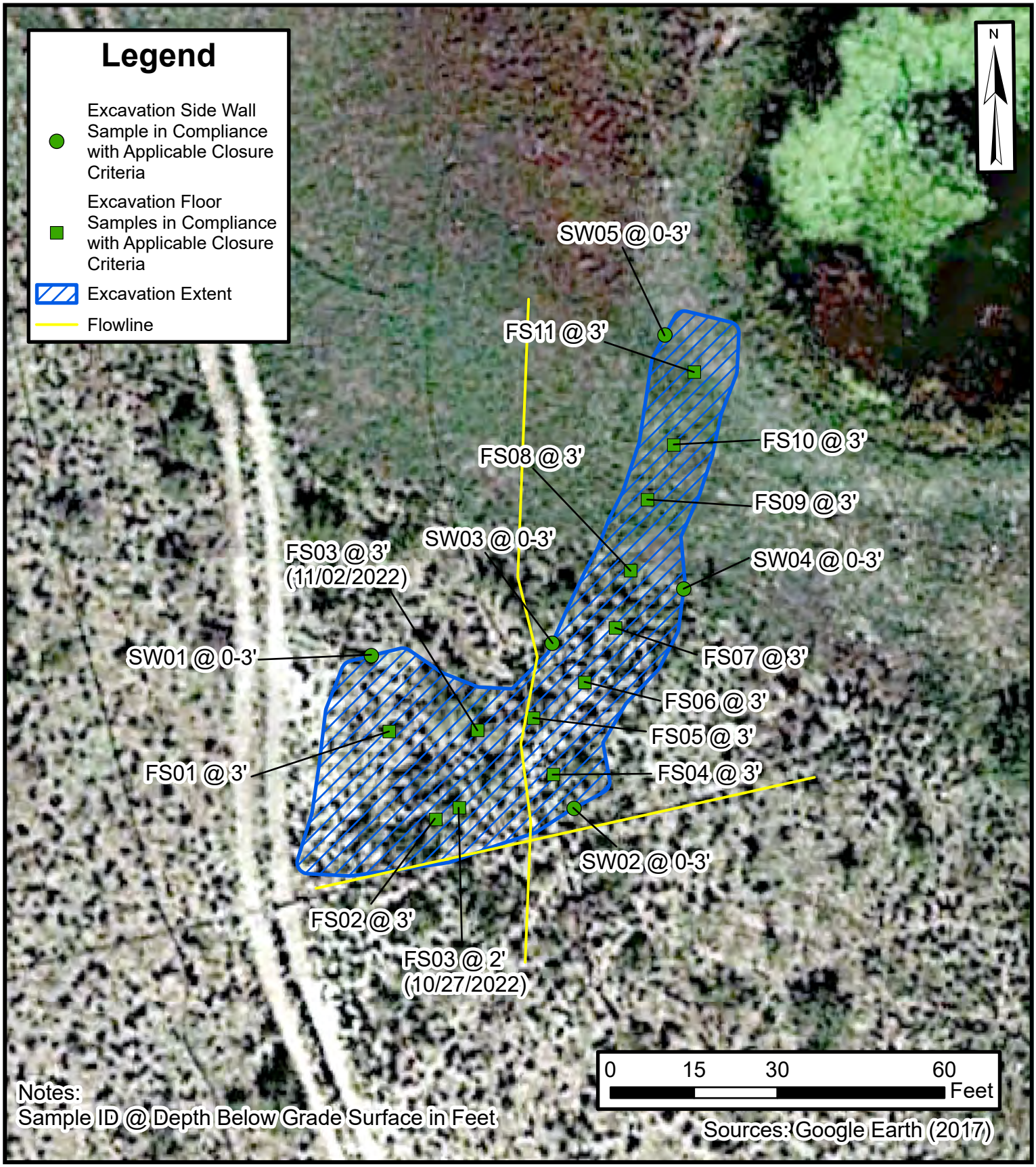
Delineation Soil Sample Locations

Leamex #018 Flowline
Maverick Permian, LLC

NAPP2229947721
Unit P, Sec 16, T17S, R33E
Lea County, New Mexico

FIGURE
2



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Excavation Soil Sample Locations

Leamex #018 Flowline
Maverick Permian, LLC

NAPP2229947721
Unit P, Sec 16, T17S, R33E
Lea County, New Mexico

FIGURE
3

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TABLE

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Leamex #018 Flowline
Maverick Permian, LLC
Lea County, New Mexico

Sample Identification	Date	Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes, Total (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600**
Delineation Soil Samples													
SS01	10/27/2022	0.2	2.69	45.7	69.7	85.5	204	4,170	32,500	6,990	36,670	**43,700**	68.4
SS02	10/27/2022	0.2	<0.199	<0.199	<0.199	<0.398	<0.398	574	21,600	5,160	22,174	**27,300**	**1,070**
SS03	10/27/2022	0.2	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	28.1
SS04	10/27/2022	0.2	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	168	60.5	168	**228.5**	40.6
SS05	10/27/2022	0.2	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	102
SS06	10/27/2022	0.2	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	21.6
SS07	11/28/2022	0.2	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	17.4
Excavation Soil Samples													
SW01	11/02/2022	0-3	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	34.2
SW02	11/02/2022	0-3	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	33.7	<50.0	33.7	33.7	51.3
SW03	11/02/2022	0-3	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	32.4
SW04	11/02/2022	0-3	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.8	52.0	<49.8	52.0	52.0	30.0
SW05	11/02/2022	0-3	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	18.2
FS01	11/02/2022	3	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	91.0
FS02	11/02/2022	3	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.8	84.4	<49.8	84.4	84.4	40.5
FS03	10/27/2022	2	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	39.3
FS03	11/02/2022	3	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<49.9	40.6	<49.9	40.6	40.6	31.7
FS04	11/02/2022	3	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	18.7	<50.0	18.7	18.7	63.5
FS05	11/02/2022	3	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	16.5	<50.0	16.5	16.5	65.4
FS06	11/02/2022	3	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	23.3
FS07	11/02/2022	3	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	<50.0	11.1	<50.0	11.1	11.1	25.1
FS08	11/02/2022	3	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	<50.0	18.0	<50.0	18.0	18.0	32.2
FS09	11/02/2022	3	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	23.9
FS10	11/02/2022	3	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	24.5
FS11	11/02/2022	3	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	51.6

Notes:

bgs: below ground surface
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
DRO: Diesel Range Organics
GRO: Gasoline Range Organics
mg/kg: milligrams per kilogram
NE: Not established
NMAC: New Mexico Administrative Code
NMOCD: New Mexico Oil Conservation Division
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	nAPP2229947721
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Maverick Permian, LLC	OGRID: 331199
Contact Name: Bryce Wagoner	Contact Telephone: 928-241-1862
Contact email: Bryce.Wagoner@mavresources.com	Incident # *(assigned by OCD)* nAPP2229947721
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.830697 Longitude -103.662348
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Leamex #018 Flowline	Site Type
Date Release Discovered October 18, 2022	API# *(if applicable)* *30-025-24542*

Unit Letter	Section	Township	Range	County
P	16	17 S	33 E	Lea

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) 1.0 bbls	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 2.3 bbls	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The release was caused by a flowline failure resulting in a non-reportable release. When the well head was opened up, it was discovered the flowline was leaking. The release occurred off pad. The source of the release has been stopped and the impacted area has been secured. The C-141 is being used to document and close out the remediation process. Initial response and removal of saturated soil from the release area has been completed.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2229947721
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: ____Bryce Wagoner _____ Title: ___Permian HSE Specialist II_____

Signature: _____ Date: ___10/24/2022_____

email: _____Bryce.Wagoner@mavresources.com____ Telephone: ___928-241-1862_____

OCD Only

Received by: _____Jocelyn Harimon_____ Date: __10/26/2022__

nAPP2229947721

Pooled Fluids on the Surface										
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries *edges of pool where depth is 0 . don't count shared boundaries*	Oil-Water Ratio (%)	Pooled Area (ft^2)	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle B					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
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!
							Total Volume (bbls):	**0.00**	**0.00**	**0.00**

Subsurface Fluids										
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) *10% in consolidated sediments after rain to 50% in sand with no precipitation*	Oil-Water Ratio (%)	Area (ft^2)	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	50.0	25.0	2.0	0.1	0.01	1250.0	37.1	3.0	0.03	2.9
Rectangle B	40.0	4.0	2.0	0.1	0.01	160.0	4.7	0.4	0.00	0.4
Rectangle C				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle D				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle E				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle F						0.0	0.0	0.0	0.00	0.0
Rectangle G						0.0	0.0	0.0	0.00	0.0
Rectangle H						0.0	0.0	0.0	0.00	0.0
Rectangle I						0.0	0.0	0.0	0.00	0.0
Rectangle J						0.0	0.0	0.0	0.00	0.0
							Total Volume (bbls):	**3.35**	**0.03**	**3.31**

TOTAL RELEASE VOLUME (bbls):	**3.3**

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 153957

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 153957
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	10/26/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2229947721
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 feet 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	NAPP2229947721
District RP	
Facility ID	
Application ID	

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

Printed Name: Bryce Wagoner Title: Permian HSE Specialist II

Signature: Date: 12/14/2022

email: bryce.wagoner@mavresources.com Telephone: 928-241-1862

OCD Only

Received by: Jocelyn Harimon Date: 12/15/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2229947721
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Bryce Wagoner Title: Permian HSE Specialist II

Signature: Date: 12/14/2022

email: bryce.wagoner@mavresources.com Telephone: 928-241-1862

OCD Only

Received by: Jocelyn Harimon Date: 12/15/2022

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: 01/11/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

APPENDIX B

Referenced Well Record

Click to hideNews Bulletins

- Effective October 24, 2022 hyperlinks to legacy Current Condition pages will automatically redirect users to the corresponding Monitoring Location page. Please see the Water Data For The Nation Blog for full details, including how to navigate back to the legacy Current Condition page, if desired.
- 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 =
- 324939103394501

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

USGS 324939103394501 17S.33E.16.44330

Lea County, New Mexico
Latitude 32°49'39", Longitude 103°39'45" NAD27
Land-surface elevation 4,174 feet above NGVD29
The depth of the well is 198.00 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHPLN) 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
1991-04-19		D	62610		4001.90	NGVD29	1		S	
1991-04-19		D	62611		4003.55	NAVD88	1		S	
1991-04-19		D	72019	172.10			1		S	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static

Section	Code	Description
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
Maverick Permian, LLC
Leamex #018 Flowline
NAPP2229947721

Photograph 1 Date: 10/24/2022
Description: View of the release area prior to remediation, looking southwest

Photograph 2 Date:11/02/2022
Description: View of the release area after excavation activities, looking northeast

Photograph 3 Date: 11/02/2022
Description: View of the release area after excavation activities, looking southwest

Photograph 4 Date: 11/02/2022
Description: View of the release after excavation activities, looking south

ENSOLUM

APPENDIX D

Laboratory Analytical Report

eurofins | Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3309-1
Laboratory Sample Delivery Group: 03D2057028
Client Project/Site: LeaMex 018

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

Attn: Josh Adams

JKramer

Authorized for release by:
11/1/2022 1:54:02 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: LeaMex 018

Laboratory Job ID: 890-3309-1
SDG: 03D2057028

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high 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: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Job ID: 890-3309-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3309-1

Receipt
The samples were received on 10/27/2022 4:12 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 4.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3309-1), SS02 (890-3309-2) and FS03 (890-3309-3).

GC VOA
Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-38226 and analytical batch 880-38213 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: SS01 (890-3309-1). 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 laboratory control sample (LCS) associated with preparation batch 880-38261 and analytical batch 880-38217 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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 880-38260 and analytical batch 880-38377 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: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Client Sample ID: SS01

Lab Sample ID: 890-3309-1
Matrix: Solid
Date Collected: 10/27/22 08:35
Date Received: 10/27/22 16:12
Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.69		0.402		mg/Kg		10/31/22 09:37	10/31/22 14:59	200
Toluene	45.7		0.402		mg/Kg		10/31/22 09:37	10/31/22 14:59	200
Ethylbenzene	69.7		0.402		mg/Kg		10/31/22 09:37	10/31/22 14:59	200
m-Xylene & p-Xylene	58.8		0.803		mg/Kg		10/31/22 09:37	10/31/22 14:59	200
o-Xylene	26.7		0.402		mg/Kg		10/31/22 09:37	10/31/22 14:59	200
Xylenes, Total	85.5		0.803		mg/Kg		10/31/22 09:37	10/31/22 14:59	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*164*	*S1+*	*70 - 130*	*10/31/22 09:37*	*10/31/22 14:59*	*200*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*10/31/22 09:37*	*10/31/22 14:59*	*200*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	204		0.803		mg/Kg			11/01/22 13:51	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	43700		498		mg/Kg			11/01/22 13:05	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	4170		498		mg/Kg		10/31/22 10:25	10/31/22 19:58	10
Diesel Range Organics (Over C10-C28)	32500	*+	498		mg/Kg		10/31/22 10:25	10/31/22 19:58	10
Oil Range Organics (Over C28-C36)	6990		498		mg/Kg		10/31/22 10:25	10/31/22 19:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*130*		*70 - 130*	*10/31/22 10:25*	*10/31/22 19:58*	*10*
o-Terphenyl	*119*		*70 - 130*	*10/31/22 10:25*	*10/31/22 19:58*	*10*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.4		5.00		mg/Kg			11/01/22 11:39	1

Client Sample ID: SS02

Lab Sample ID: 890-3309-2
Matrix: Solid
Date Collected: 10/27/22 08:55
Date Received: 10/27/22 16:12
Sample Depth: 0.2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.199	U	0.199		mg/Kg		10/31/22 09:37	10/31/22 14:39	100
Toluene	<0.199	U	0.199		mg/Kg		10/31/22 09:37	10/31/22 14:39	100
Ethylbenzene	<0.199	U	0.199		mg/Kg		10/31/22 09:37	10/31/22 14:39	100
m-Xylene & p-Xylene	<0.398	U	0.398		mg/Kg		10/31/22 09:37	10/31/22 14:39	100
o-Xylene	0.278		0.199		mg/Kg		10/31/22 09:37	10/31/22 14:39	100
Xylenes, Total	<0.398	U	0.398		mg/Kg		10/31/22 09:37	10/31/22 14:39	100

Client Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Client Sample ID: SS02

Date Collected: 10/27/22 08:55
Date Received: 10/27/22 16:12
Sample Depth: 0.2'

Lab Sample ID: 890-3309-2
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*10/31/22 09:37*	*10/31/22 14:39*	*100*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*10/31/22 09:37*	*10/31/22 14:39*	*100*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.398	U	0.398	mg/Kg			11/01/22 13:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**27300**		498	mg/Kg			11/01/22 13:05	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	**574**		498	mg/Kg		10/31/22 10:25	10/31/22 20:19	10
Diesel Range Organics (Over C10-C28)	**21600**	*+	498	mg/Kg		10/31/22 10:25	10/31/22 20:19	10
Oil Range Organics (Over C28-C36)	**5160**		498	mg/Kg		10/31/22 10:25	10/31/22 20:19	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*101*		*70 - 130*	*10/31/22 10:25*	*10/31/22 20:19*	*10*
o-Terphenyl	*114*		*70 - 130*	*10/31/22 10:25*	*10/31/22 20:19*	*10*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1070**		5.04	mg/Kg			11/01/22 11:44	1

Client Sample ID: FS03

Date Collected: 10/27/22 12:30
Date Received: 10/27/22 16:12
Sample Depth: 24"

Lab Sample ID: 890-3309-3
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		10/31/22 09:37	10/31/22 11:55	1
Toluene	<0.00198	U	0.00198	mg/Kg		10/31/22 09:37	10/31/22 11:55	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		10/31/22 09:37	10/31/22 11:55	1
m-Xylene & p-Xylene	<0.00397	U F1	0.00397	mg/Kg		10/31/22 09:37	10/31/22 11:55	1
o-Xylene	<0.00198	U F2 F1	0.00198	mg/Kg		10/31/22 09:37	10/31/22 11:55	1
Xylenes, Total	<0.00397	U F2 F1	0.00397	mg/Kg		10/31/22 09:37	10/31/22 11:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*10/31/22 09:37*	*10/31/22 11:55*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*10/31/22 09:37*	*10/31/22 11:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			11/01/22 13:51	1

Client Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Client Sample ID: FS03

Date Collected: 10/27/22 12:30
Date Received: 10/27/22 16:12
Sample Depth: 24"

Lab Sample ID: 890-3309-3

Matrix: Solid

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			11/01/22 13:05	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		10/31/22 10:25	10/31/22 19:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U *+	49.8		mg/Kg		10/31/22 10:25	10/31/22 19:36	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		10/31/22 10:25	10/31/22 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*10/31/22 10:25*	*10/31/22 19:36*	*1*
o-Terphenyl	*103*		*70 - 130*	*10/31/22 10:25*	*10/31/22 19:36*	*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			11/01/22 11:59	1

Surrogate Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3309-1	SS01	164 S1+	97
890-3309-2	SS02	113	103
890-3309-3	FS03	98	102
890-3309-3 MS	FS03	108	104
890-3309-3 MSD	FS03	81	90
LCS 880-38226/1-A	Lab Control Sample	98	109
LCSD 880-38226/2-A	Lab Control Sample Dup	90	108
MB 880-38226/5-A	Method Blank	83	90

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3309-1	SS01	130	119
890-3309-2	SS02	101	114
890-3309-3	FS03	94	103
890-3333-A-1-D MS	Matrix Spike	102	103
890-3333-A-1-E MSD	Matrix Spike Duplicate	102	104
LCS 880-38261/2-A	Lab Control Sample	131 S1+	146 S1+
LCSD 880-38261/3-A	Lab Control Sample Dup	133 S1+	148 S1+
MB 880-38261/1-A	Method Blank	87	99

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38226/5-A
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38226

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/31/22 09:37	10/31/22 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*10/31/22 09:37*	*10/31/22 11:33*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*10/31/22 09:37*	*10/31/22 11:33*	*1*

Lab Sample ID: LCS 880-38226/1-A
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38226

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1062		mg/Kg		106	70 - 130		
Toluene			0.100	0.08993		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.08912		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1829		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.09028		mg/Kg		90	70 - 130		

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

Lab Sample ID: LCSD 880-38226/2-A
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38226

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1046		mg/Kg		105	70 - 130	1	35
Toluene			0.100	0.08779		mg/Kg		88	70 - 130	2	35
Ethylbenzene			0.100	0.08254		mg/Kg		83	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1682		mg/Kg		84	70 - 130	8	35
o-Xylene			0.100	0.08215		mg/Kg		82	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-3309-3 MS
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: FS03
Prep Type: Total/NA
Prep Batch: 38226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00198	U	0.0998	0.09077		mg/Kg		91	70 - 130		
Toluene	<0.00198	U	0.0998	0.08304		mg/Kg		83	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

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

Lab Sample ID: 890-3309-3 MS
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: FS03
Prep Type: Total/NA
Prep Batch: 38226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U	0.0998	0.08672		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1	0.200	0.1763		mg/Kg		88	70 - 130
o-Xylene	<0.00198	U F2 F1	0.0998	0.08506		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-3309-3 MSD
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: FS03
Prep Type: Total/NA
Prep Batch: 38226

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.0990	0.06946		mg/Kg		70	70 - 130	27	35
Toluene	<0.00198	U	0.0990	0.07239		mg/Kg		73	70 - 130	14	35
Ethylbenzene	<0.00198	U	0.0990	0.07063		mg/Kg		71	70 - 130	20	35
m-Xylene & p-Xylene	<0.00397	U F1	0.198	0.1246	F1	mg/Kg		63	70 - 130	34	35
o-Xylene	<0.00198	U F2 F1	0.0990	0.05717	F2 F1	mg/Kg		57	70 - 130	39	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-38261/1-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38261

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		10/31/22 10:25	10/31/22 09:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	903.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1384	*+	mg/Kg		138	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

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

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	146	S1+	70 - 130

Lab Sample ID: LCSD 880-38261/3-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	944.8		mg/Kg		94	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1439	*+	mg/Kg		144	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	148	S1+	70 - 130

Lab Sample ID: 890-3333-A-1-D MS
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38261

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	997	863.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *+	997	1014		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-3333-A-1-E MSD
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	861.4		mg/Kg		84	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	1025		mg/Kg		101	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	104		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38260/1-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/01/22 08:20	1

Lab Sample ID: LCS 880-38260/2-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.0		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-38260/3-A
Matrix: Solid
Analysis Batch: 38377

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	253.4		mg/Kg		101	90 - 110	2	20

Lab Sample ID: 890-3306-A-1-C MS
Matrix: Solid
Analysis Batch: 38377

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	102	F1	250	333.0		mg/Kg		93	90 - 110		

Lab Sample ID: 890-3306-A-1-D MSD
Matrix: Solid
Analysis Batch: 38377

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	102	F1	250	324.7	F1	mg/Kg		89	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

GC VOA

Analysis Batch: 38213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3309-1	SS01	Total/NA	Solid	8021B	38226
890-3309-2	SS02	Total/NA	Solid	8021B	38226
890-3309-3	FS03	Total/NA	Solid	8021B	38226
MB 880-38226/5-A	Method Blank	Total/NA	Solid	8021B	38226
LCS 880-38226/1-A	Lab Control Sample	Total/NA	Solid	8021B	38226
LCSD 880-38226/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38226
890-3309-3 MS	FS03	Total/NA	Solid	8021B	38226
890-3309-3 MSD	FS03	Total/NA	Solid	8021B	38226

Prep Batch: 38226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3309-1	SS01	Total/NA	Solid	5035	
890-3309-2	SS02	Total/NA	Solid	5035	
890-3309-3	FS03	Total/NA	Solid	5035	
MB 880-38226/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38226/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38226/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3309-3 MS	FS03	Total/NA	Solid	5035	
890-3309-3 MSD	FS03	Total/NA	Solid	5035	

Analysis Batch: 38399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3309-1	SS01	Total/NA	Solid	Total BTEX	
890-3309-2	SS02	Total/NA	Solid	Total BTEX	
890-3309-3	FS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3309-1	SS01	Total/NA	Solid	8015B NM	38261
890-3309-2	SS02	Total/NA	Solid	8015B NM	38261
890-3309-3	FS03	Total/NA	Solid	8015B NM	38261
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015B NM	38261
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38261
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38261
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38261
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38261

Prep Batch: 38261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3309-1	SS01	Total/NA	Solid	8015NM Prep	
890-3309-2	SS02	Total/NA	Solid	8015NM Prep	
890-3309-3	FS03	Total/NA	Solid	8015NM Prep	
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

GC Semi VOA

Analysis Batch: 38394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3309-1	SS01	Total/NA	Solid	8015 NM	
890-3309-2	SS02	Total/NA	Solid	8015 NM	
890-3309-3	FS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3309-1	SS01	Soluble	Solid	DI Leach	
890-3309-2	SS02	Soluble	Solid	DI Leach	
890-3309-3	FS03	Soluble	Solid	DI Leach	
MB 880-38260/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3306-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3306-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 38377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3309-1	SS01	Soluble	Solid	300.0	38260
890-3309-2	SS02	Soluble	Solid	300.0	38260
890-3309-3	FS03	Soluble	Solid	300.0	38260
MB 880-38260/1-A	Method Blank	Soluble	Solid	300.0	38260
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	300.0	38260
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38260
890-3306-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	38260
890-3306-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38260

Lab Chronicle

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Client Sample ID: SS01

Date Collected: 10/27/22 08:35
Date Received: 10/27/22 16:12

Lab Sample ID: 890-3309-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	38226	10/31/22 09:37	MNR	EET MID
Total/NA	Analysis	8021B		200	5 mL	5 mL	38213	10/31/22 14:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38399	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38394	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	38217	10/31/22 19:58	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38260	10/31/22 10:21	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38377	11/01/22 11:39	CH	EET MID

Client Sample ID: SS02

Date Collected: 10/27/22 08:55
Date Received: 10/27/22 16:12

Lab Sample ID: 890-3309-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	38226	10/31/22 09:37	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	38213	10/31/22 14:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38399	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38394	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	38217	10/31/22 20:19	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	38260	10/31/22 10:21	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38377	11/01/22 11:44	CH	EET MID

Client Sample ID: FS03

Date Collected: 10/27/22 12:30
Date Received: 10/27/22 16:12

Lab Sample ID: 890-3309-3
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			5.04 g	5 mL	38226	10/31/22 09:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	10/31/22 11:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38399	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38394	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 19:36	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38260	10/31/22 10:21	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38377	11/01/22 11:59	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: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3309-1
SDG: 03D2057028

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3309-1	SS01	Solid	10/27/22 08:35	10/27/22 16:12	0.2'
890-3309-2	SS02	Solid	10/27/22 08:55	10/27/22 16:12	0.2'
890-3309-3	FS03	Solid	10/27/22 12:30	10/27/22 16:12	24"

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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)	a a
Company Name:	Ensolum LLC	Company Name:	
Address:	3122 Nat'l Parks Hwy	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	303-517-8431	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:	Leamex 018	Turn Around	
Project Number:	03D2057028	☒ Routine ☐ Rush	
Project Location:	32.830697, -103.623516	Due Date:	5 day
Sampler's Name:	Juliana Falcomata	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	Tmm-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	4.8
Total Containers:		Corrected Temperature:	4.6

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH	BTEX	Chlorides
SS01	S	10-27-22	0825	.2"	C	1		✓	✓	✓
SS02	S	10-27-22	0855	.2"	C	1		✓	✓	✓
FS03	S	10-27-22	1230	24"	C	1		✓	✓	✓

890-3309 Chain of Custody

Preservative Codes

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

Sample Comments

AFE: 0000000471
Cost code: GA130323

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 Stut	10/27/22 16	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3309-1
SDG Number: 03D2057028

Login Number: 3309
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.	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: 890-3309-1
SDG Number: 03D2057028

Login Number: 3309
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/31/22 09:20 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: 890-3308-1
Laboratory Sample Delivery Group: 03D2057028
Client Project/Site: LeaMex 018

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

Attn: Josh Adams

JKramer

Authorized for release by:
11/1/2022 1:53:29 PM

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

Client: Ensolum
Project/Site: LeaMex 018

Laboratory Job ID: 890-3308-1
SDG: 03D2057028

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

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
*+	LCS and/or LCSD is outside acceptance limits, high 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: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

Job ID: 890-3308-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3308-1

Receipt
The sample was received on 10/27/2022 4:12 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS03 (890-3308-1).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SS03 (890-3308-1) and (890-3303-A-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.

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-38261 and analytical batch 880-38217 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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 880-38260 and analytical batch 880-38377 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: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

Client Sample ID: SS03

Date Collected: 10/27/22 13:30
Date Received: 10/27/22 16:12
Sample Depth: 0.2'

Lab Sample ID: 890-3308-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/31/22 09:15	10/31/22 13:26	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/31/22 09:15	10/31/22 13:26	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/31/22 09:15	10/31/22 13:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/31/22 09:15	10/31/22 13:26	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/31/22 09:15	10/31/22 13:26	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/31/22 09:15	10/31/22 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*36*	*S1-*	*70 - 130*	*10/31/22 09:15*	*10/31/22 13:26*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*10/31/22 09:15*	*10/31/22 13:26*	*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			10/31/22 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			11/01/22 13:05	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		10/31/22 10:25	10/31/22 14:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		10/31/22 10:25	10/31/22 14:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*10/31/22 10:25*	*10/31/22 14:56*	*1*
o-Terphenyl	*77*		*70 - 130*	*10/31/22 10:25*	*10/31/22 14:56*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.1**		4.95		mg/Kg			11/01/22 11:34	1

Surrogate Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3303-A-2-B MS	Matrix Spike	105	102
890-3303-A-2-C MSD	Matrix Spike Duplicate	95	95
890-3308-1	SS03	36 S1-	91
LCS 880-38223/1-A	Lab Control Sample	97	97
LCSD 880-38223/2-A	Lab Control Sample Dup	95	98
MB 880-38223/5-A	Method Blank	99	91

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3308-1	SS03	70	77
890-3333-A-1-D MS	Matrix Spike	102	103
890-3333-A-1-E MSD	Matrix Spike Duplicate	102	104
LCS 880-38261/2-A	Lab Control Sample	131 S1+	146 S1+
LCSD 880-38261/3-A	Lab Control Sample Dup	133 S1+	148 S1+
MB 880-38261/1-A	Method Blank	87	99

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38223/5-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38223

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/31/22 09:15	10/31/22 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*10/31/22 09:15*	*10/31/22 11:00*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*10/31/22 09:15*	*10/31/22 11:00*	*1*

Lab Sample ID: LCS 880-38223/1-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38223

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08506		mg/Kg		85	70 - 130		
Toluene			0.100	0.09233		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.09305		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1814		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130		

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

Lab Sample ID: LCSD 880-38223/2-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38223

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09133		mg/Kg		91	70 - 130	7	35
Toluene			0.100	0.09725		mg/Kg		97	70 - 130	5	35
Ethylbenzene			0.100	0.09938		mg/Kg		99	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1886		mg/Kg		94	70 - 130	4	35
o-Xylene			0.100	0.1064		mg/Kg		106	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-3303-A-2-B MS
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0990	0.08354		mg/Kg		83	70 - 130		
Toluene	<0.00200	U	0.0990	0.08996		mg/Kg		91	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

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

Lab Sample ID: 890-3303-A-2-B MS
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0990	0.09006		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1808		mg/Kg		91	70 - 130
o-Xylene	<0.00200	U	0.0990	0.1013		mg/Kg		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3303-A-2-C MSD
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.07830		mg/Kg		77	70 - 130	6	35
Toluene	<0.00200	U	0.100	0.08671		mg/Kg		87	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.07853		mg/Kg		78	70 - 130	14	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1517		mg/Kg		76	70 - 130	18	35
o-Xylene	<0.00200	U	0.100	0.08529		mg/Kg		85	70 - 130	17	35

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

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

Lab Sample ID: MB 880-38261/1-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38261

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		10/31/22 10:25	10/31/22 09:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	903.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1384	*+	mg/Kg		138	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

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

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	146	S1+	70 - 130

Lab Sample ID: LCSD 880-38261/3-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	944.8		mg/Kg		94	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1439	*+	mg/Kg		144	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	148	S1+	70 - 130

Lab Sample ID: 890-3333-A-1-D MS
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38261

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	997	863.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *+	997	1014		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-3333-A-1-E MSD
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	861.4		mg/Kg		84	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	1025		mg/Kg		101	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	104		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38260/1-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/01/22 08:20	1

Lab Sample ID: LCS 880-38260/2-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.0		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-38260/3-A
Matrix: Solid
Analysis Batch: 38377

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	253.4		mg/Kg		101	90 - 110	2	20

Lab Sample ID: 890-3306-A-1-C MS
Matrix: Solid
Analysis Batch: 38377

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	102	F1	250	333.0		mg/Kg		93	90 - 110		

Lab Sample ID: 890-3306-A-1-D MSD
Matrix: Solid
Analysis Batch: 38377

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	102	F1	250	324.7	F1	mg/Kg		89	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

GC VOA

Analysis Batch: 38211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3308-1	SS03	Total/NA	Solid	8021B	38223
MB 880-38223/5-A	Method Blank	Total/NA	Solid	8021B	38223
LCS 880-38223/1-A	Lab Control Sample	Total/NA	Solid	8021B	38223
LCSD 880-38223/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38223
890-3303-A-2-B MS	Matrix Spike	Total/NA	Solid	8021B	38223
890-3303-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38223

Prep Batch: 38223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3308-1	SS03	Total/NA	Solid	5035	
MB 880-38223/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38223/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38223/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3303-A-2-B MS	Matrix Spike	Total/NA	Solid	5035	
890-3303-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3308-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3308-1	SS03	Total/NA	Solid	8015B NM	38261
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015B NM	38261
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38261
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38261
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38261
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38261

Prep Batch: 38261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3308-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3308-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3308-1	SS03	Soluble	Solid	DI Leach	
MB 880-38260/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

HPLC/IC (Continued)

Leach Batch: 38260 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3306-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 38377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3308-1	SS03	Soluble	Solid	300.0	38260
MB 880-38260/1-A	Method Blank	Soluble	Solid	300.0	38260
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	300.0	38260
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38260
890-3306-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	38260
890-3306-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38260

Lab Chronicle

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

Client Sample ID: SS03

Date Collected: 10/27/22 13:30
Date Received: 10/27/22 16:12

Lab Sample ID: 890-3308-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	38223	10/31/22 09:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38211	10/31/22 13:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38308	10/31/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38386	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 14:56	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38260	10/31/22 10:21	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38377	11/01/22 11:34	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: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3308-1
SDG: 03D2057028

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3308-1	SS03	Solid	10/27/22 13:30	10/27/22 16:12	0.2'

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Chain of Custody

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

Work Order No: ____________

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Project Manager:	Josh adams	Bill to: (if different)	a.a
Company Name:	Ensolum, LLC	Company Name:	
Address:	3122 Nat'l Parks Hwy	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	303-517-5437	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:	Leamex 018	Turn Around	
Project Number:	03D2057028	☐ Routine	☑ Rush
Project Location:	32.830697, -103.662348	Due Date:	3 day
Sampler's Name:	Julianna Falcomata	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes (circled) No	Wet Ice:	Yes (circled) No
Samples Received Intact:	Yes (circled) No		Thermometer ID:	TAM-007
Cooler Custody Seals:	Yes No N/A (circled)		Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A (circled)		Temperature Reading:	4.8
Total Containers:			Corrected Temperature:	4.6

ANALYSIS REQUEST — Parameters; Pres. Code

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	TPH	BTX	Chlorides	Sample Comments
SS03	S	10-27-22	1330	.2"	C	1	✓	✓	✓	AFE: 000000004171 Cost code: GA130373

890-3308 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	

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 [signature]	Amanda Stuft [signature]	10/27/22 1612	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3308-1
SDG Number: 03D2057028

Login Number: 3308
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.	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: 890-3308-1
SDG Number: 03D2057028

Login Number: 3308
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/31/22 08:40 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: 890-3307-1
Laboratory Sample Delivery Group: 03D2057028
Client Project/Site: LeaMex 018

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

Attn: Josh Adams

JKramer

Authorized for release by:
11/1/2022 1:53:01 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: LeaMex 018

Laboratory Job ID: 890-3307-1
SDG: 03D2057028

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

Job ID: 890-3307-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3307-1

Receipt
The sample was received on 10/27/2022 4:12 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-3307-1).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3303-A-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.

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-38261 and analytical batch 880-38217 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

Client Sample ID: SS04

Date Collected: 10/27/22 13:35
Date Received: 10/27/22 16:12
Sample Depth: 0.2'

Lab Sample ID: 890-3307-1

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		10/31/22 09:15	10/31/22 13:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:15	10/31/22 13:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:15	10/31/22 13:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/22 09:15	10/31/22 13:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:15	10/31/22 13:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/22 09:15	10/31/22 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*10/31/22 09:15*	*10/31/22 13:05*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*10/31/22 09:15*	*10/31/22 13:05*	*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			10/31/22 15:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**229**		50.0		mg/Kg			11/01/22 13:05	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		10/31/22 10:25	10/31/22 14:34	1
Diesel Range Organics (Over C10-C28)	**168**	***+**	50.0		mg/Kg		10/31/22 10:25	10/31/22 14:34	1
Oil Range Organics (Over C28-C36)	**60.5**		50.0		mg/Kg		10/31/22 10:25	10/31/22 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*10/31/22 10:25*	*10/31/22 14:34*	*1*
o-Terphenyl	*107*		*70 - 130*	*10/31/22 10:25*	*10/31/22 14:34*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.6**		4.98		mg/Kg			11/01/22 12:58	1

Surrogate Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3303-A-2-B MS	Matrix Spike	105	102
890-3303-A-2-C MSD	Matrix Spike Duplicate	95	95
890-3307-1	SS04	129	94
LCS 880-38223/1-A	Lab Control Sample	97	97
LCSD 880-38223/2-A	Lab Control Sample Dup	95	98
MB 880-38223/5-A	Method Blank	99	91

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3307-1	SS04	100	107
890-3333-A-1-D MS	Matrix Spike	102	103
890-3333-A-1-E MSD	Matrix Spike Duplicate	102	104
LCS 880-38261/2-A	Lab Control Sample	131 S1+	146 S1+
LCSD 880-38261/3-A	Lab Control Sample Dup	133 S1+	148 S1+
MB 880-38261/1-A	Method Blank	87	99

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38223/5-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38223

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/31/22 09:15	10/31/22 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*10/31/22 09:15*	*10/31/22 11:00*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*10/31/22 09:15*	*10/31/22 11:00*	*1*

Lab Sample ID: LCS 880-38223/1-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38223

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08506		mg/Kg		85	70 - 130		
Toluene			0.100	0.09233		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.09305		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1814		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130		

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

Lab Sample ID: LCSD 880-38223/2-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38223

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09133		mg/Kg		91	70 - 130	7	35
Toluene			0.100	0.09725		mg/Kg		97	70 - 130	5	35
Ethylbenzene			0.100	0.09938		mg/Kg		99	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1886		mg/Kg		94	70 - 130	4	35
o-Xylene			0.100	0.1064		mg/Kg		106	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-3303-A-2-B MS
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0990	0.08354		mg/Kg		83	70 - 130		
Toluene	<0.00200	U	0.0990	0.08996		mg/Kg		91	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

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

Lab Sample ID: 890-3303-A-2-B MS
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0990	0.09006		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1808		mg/Kg		91	70 - 130
o-Xylene	<0.00200	U	0.0990	0.1013		mg/Kg		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3303-A-2-C MSD
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.07830		mg/Kg		77	70 - 130	6	35
Toluene	<0.00200	U	0.100	0.08671		mg/Kg		87	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.07853		mg/Kg		78	70 - 130	14	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1517		mg/Kg		76	70 - 130	18	35
o-Xylene	<0.00200	U	0.100	0.08529		mg/Kg		85	70 - 130	17	35

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

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

Lab Sample ID: MB 880-38261/1-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38261

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		10/31/22 10:25	10/31/22 09:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	903.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1384	*+	mg/Kg		138	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

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

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	146	S1+	70 - 130

Lab Sample ID: LCSD 880-38261/3-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	944.8		mg/Kg		94	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1439	*+	mg/Kg		144	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	148	S1+	70 - 130

Lab Sample ID: 890-3333-A-1-D MS
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38261

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	997	863.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *+	997	1014		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-3333-A-1-E MSD
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	861.4		mg/Kg		84	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	1025		mg/Kg		101	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	104		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38260/1-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/01/22 08:20	1

Lab Sample ID: LCS 880-38260/2-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.0		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-38260/3-A
Matrix: Solid
Analysis Batch: 38377

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	253.4		mg/Kg		101	90 - 110	2	20

Lab Sample ID: 880-20979-A-3-B MS
Matrix: Solid
Analysis Batch: 38377

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	21.9		250	294.9		mg/Kg		109	90 - 110		

Lab Sample ID: 880-20979-A-3-C MSD
Matrix: Solid
Analysis Batch: 38377

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	21.9		250	293.2		mg/Kg		109	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

GC VOA

Analysis Batch: 38211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3307-1	SS04	Total/NA	Solid	8021B	38223
MB 880-38223/5-A	Method Blank	Total/NA	Solid	8021B	38223
LCS 880-38223/1-A	Lab Control Sample	Total/NA	Solid	8021B	38223
LCSD 880-38223/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38223
890-3303-A-2-B MS	Matrix Spike	Total/NA	Solid	8021B	38223
890-3303-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38223

Prep Batch: 38223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3307-1	SS04	Total/NA	Solid	5035	
MB 880-38223/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38223/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38223/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3303-A-2-B MS	Matrix Spike	Total/NA	Solid	5035	
890-3303-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3307-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3307-1	SS04	Total/NA	Solid	8015B NM	38261
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015B NM	38261
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38261
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38261
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38261
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38261

Prep Batch: 38261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3307-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3307-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3307-1	SS04	Soluble	Solid	DI Leach	
MB 880-38260/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

HPLC/IC (Continued)

Leach Batch: 38260 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-20979-A-3-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-20979-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 38377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3307-1	SS04	Soluble	Solid	300.0	38260
MB 880-38260/1-A	Method Blank	Soluble	Solid	300.0	38260
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	300.0	38260
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38260
880-20979-A-3-B MS	Matrix Spike	Soluble	Solid	300.0	38260
880-20979-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38260

Lab Chronicle

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

Client Sample ID: SS04

Date Collected: 10/27/22 13:35
Date Received: 10/27/22 16:12

Lab Sample ID: 890-3307-1

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	38223	10/31/22 09:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38211	10/31/22 13:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38307	10/31/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38385	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 14:34	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	38260	10/31/22 10:21	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38377	11/01/22 12:58	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: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3307-1
SDG: 03D2057028

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3307-1	SS04	Solid	10/27/22 13:35	10/27/22 16:12	0.2'

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Chain of Custody

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

Work Order No: ____________

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Project Manager:	Josh Adams	Bill to: (if different)	gi a
Company Name:	Ensolum LLC	Company Name:	
Address:	3122 Nat'l Park Hwy	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	303-517-8437	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:	Loamex 018	Turn Around	☐ Routine ☑ Rush
Project Number:	03D2057028	Due Date:	3 day
Project Location:	32.830187, -103.4234	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Julianna Falcomata		
PO #:			

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	4.8	
Total Containers:		Corrected Temperature:	4.6	

ANALYSIS REQUEST — Parameters: TPH, BTEX, Chlorides

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	TPH	BTEX	Chlorides	Sample Comments
SS04	S	10-27-22	1335	.2'	C	1	✓	✓	✓	AFE: 0000000471 / Cost Code: GIAB0313

890-3307 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	

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 [signature]	[signature]	10/27/22 1612	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3307-1
SDG Number: 03D2057028

Login Number: 3307
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.	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: 890-3307-1
SDG Number: 03D2057028

Login Number: 3307
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/31/22 08:40 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: 890-3306-1
Laboratory Sample Delivery Group: 03D2057028
Client Project/Site: LeaMex 018

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

Attn: Josh Adams

JKramer

Authorized for release by:
11/1/2022 1:53:01 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: LeaMex 018

Laboratory Job ID: 890-3306-1
SDG: 03D2057028

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Definitions/Glossary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high 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: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

Job ID: 890-3306-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3306-1

Receipt
The sample was received on 10/27/2022 4:12 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-3306-1).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3303-A-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.

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-38261 and analytical batch 880-38217 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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 880-38260 and analytical batch 880-38377 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: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

Client Sample ID: SS05

Date Collected: 10/27/22 13:40
Date Received: 10/27/22 16:12
Sample Depth: 0.2'

Lab Sample ID: 890-3306-1

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		10/31/22 09:15	10/31/22 12:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:15	10/31/22 12:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:15	10/31/22 12:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/22 09:15	10/31/22 12:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:15	10/31/22 12:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/22 09:15	10/31/22 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*10/31/22 09:15*	*10/31/22 12:44*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*10/31/22 09:15*	*10/31/22 12:44*	*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			10/31/22 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			11/01/22 13:05	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		10/31/22 10:25	10/31/22 14:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		10/31/22 10:25	10/31/22 14:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*10/31/22 10:25*	*10/31/22 14:12*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/31/22 10:25*	*10/31/22 14:12*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**102**	**F1**	5.00		mg/Kg			11/01/22 11:14	1

Surrogate Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3303-A-2-B MS	Matrix Spike	105	102
890-3303-A-2-C MSD	Matrix Spike Duplicate	95	95
890-3306-1	SS05	106	104
LCS 880-38223/1-A	Lab Control Sample	97	97
LCSD 880-38223/2-A	Lab Control Sample Dup	95	98
MB 880-38223/5-A	Method Blank	99	91

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3306-1	SS05	85	99
890-3333-A-1-D MS	Matrix Spike	102	103
890-3333-A-1-E MSD	Matrix Spike Duplicate	102	104
LCS 880-38261/2-A	Lab Control Sample	131 S1+	146 S1+
LCSD 880-38261/3-A	Lab Control Sample Dup	133 S1+	148 S1+
MB 880-38261/1-A	Method Blank	87	99

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38223/5-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38223

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:15	10/31/22 11:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/31/22 09:15	10/31/22 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*10/31/22 09:15*	*10/31/22 11:00*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*10/31/22 09:15*	*10/31/22 11:00*	*1*

Lab Sample ID: LCS 880-38223/1-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38223

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08506		mg/Kg		85	70 - 130		
Toluene			0.100	0.09233		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.09305		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1814		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130		

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

Lab Sample ID: LCSD 880-38223/2-A
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38223

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09133		mg/Kg		91	70 - 130	7	35
Toluene			0.100	0.09725		mg/Kg		97	70 - 130	5	35
Ethylbenzene			0.100	0.09938		mg/Kg		99	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1886		mg/Kg		94	70 - 130	4	35
o-Xylene			0.100	0.1064		mg/Kg		106	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-3303-A-2-B MS
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0990	0.08354		mg/Kg		83	70 - 130		
Toluene	<0.00200	U	0.0990	0.08996		mg/Kg		91	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

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

Lab Sample ID: 890-3303-A-2-B MS
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0990	0.09006		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1808		mg/Kg		91	70 - 130
o-Xylene	<0.00200	U	0.0990	0.1013		mg/Kg		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3303-A-2-C MSD
Matrix: Solid
Analysis Batch: 38211

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38223

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.07830		mg/Kg		77	70 - 130	6	35
Toluene	<0.00200	U	0.100	0.08671		mg/Kg		87	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.07853		mg/Kg		78	70 - 130	14	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1517		mg/Kg		76	70 - 130	18	35
o-Xylene	<0.00200	U	0.100	0.08529		mg/Kg		85	70 - 130	17	35

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

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

Lab Sample ID: MB 880-38261/1-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38261

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		10/31/22 10:25	10/31/22 09:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	903.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1384	*+	mg/Kg		138	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

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

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	146	S1+	70 - 130

Lab Sample ID: LCSD 880-38261/3-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	944.8		mg/Kg		94	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1439	*+	mg/Kg		144	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	148	S1+	70 - 130

Lab Sample ID: 890-3333-A-1-D MS
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38261

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	997	863.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *+	997	1014		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-3333-A-1-E MSD
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	861.4		mg/Kg		84	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	1025		mg/Kg		101	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	104		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38260/1-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/01/22 08:20	1

Lab Sample ID: LCS 880-38260/2-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.0		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-38260/3-A
Matrix: Solid
Analysis Batch: 38377

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	253.4		mg/Kg		101	90 - 110	2	20

Lab Sample ID: 890-3306-1 MS
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: SS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	102	F1	250	333.0		mg/Kg		93	90 - 110		

Lab Sample ID: 890-3306-1 MSD
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: SS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	102	F1	250	324.7	F1	mg/Kg		89	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

GC VOA

Analysis Batch: 38211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1	SS05	Total/NA	Solid	8021B	38223
MB 880-38223/5-A	Method Blank	Total/NA	Solid	8021B	38223
LCS 880-38223/1-A	Lab Control Sample	Total/NA	Solid	8021B	38223
LCSD 880-38223/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38223
890-3303-A-2-B MS	Matrix Spike	Total/NA	Solid	8021B	38223
890-3303-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38223

Prep Batch: 38223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1	SS05	Total/NA	Solid	5035	
MB 880-38223/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38223/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38223/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3303-A-2-B MS	Matrix Spike	Total/NA	Solid	5035	
890-3303-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1	SS05	Total/NA	Solid	8015B NM	38261
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015B NM	38261
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38261
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38261
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38261
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38261

Prep Batch: 38261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1	SS05	Soluble	Solid	DI Leach	
MB 880-38260/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

HPLC/IC (Continued)

Leach Batch: 38260 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1 MS	SS05	Soluble	Solid	DI Leach	
890-3306-1 MSD	SS05	Soluble	Solid	DI Leach	

Analysis Batch: 38377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-1	SS05	Soluble	Solid	300.0	38260
MB 880-38260/1-A	Method Blank	Soluble	Solid	300.0	38260
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	300.0	38260
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38260
890-3306-1 MS	SS05	Soluble	Solid	300.0	38260
890-3306-1 MSD	SS05	Soluble	Solid	300.0	38260

Lab Chronicle

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

Client Sample ID: SS05

Date Collected: 10/27/22 13:40
Date Received: 10/27/22 16:12

Lab Sample ID: 890-3306-1

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	38223	10/31/22 09:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38211	10/31/22 12:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38306	10/31/22 15:09	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38384	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 14:12	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38260	10/31/22 10:21	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38377	11/01/22 11:14	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: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3306-1
SDG: 03D2057028

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3306-1	SS05	Solid	10/27/22 13:40	10/27/22 16:12	0.2'

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Chain of Custody

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

Work Order No: ______

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Project Manager:	JOSH ADAMS	Bill to: (if different)	a.a.
Company Name:	ENSOLUM LLC	Company Name:	
Address:	8122 Nat'l Parks Hwy	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	303-517-8137	Email:	jadams@ensolum.com kjennings@ensolum.com

Work Order Comments

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

Project Name:	Leamex 018	Turn Around	
Project Number:	03D2057028	☐ Routine	☑ Rush
Project Location:	32.330697, -103.662341	Due Date:	3 day
Sampler's Name:	Julianna Falcomata	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:	TNM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	4.8	
Total Containers:		Corrected Temperature:	4.6	

ANALYSIS REQUEST — Parameters: TPH, BTEX, CHLORIDES

890-3306 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	TPH	BTEX	CHLORIDES	Sample Comments
SS05	S	10-21-22	1340	.2'	C	1	✓	✓	✓	AFE: 00000000471; Costcode: GA130323

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

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 [signature]	[signature]	10/27/22 1612	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3306-1
SDG Number: 03D2057028

Login Number: 3306
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.	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: 890-3306-1
SDG Number: 03D2057028

Login Number: 3306
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/31/22 08:40 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: 890-3310-1
Laboratory Sample Delivery Group: 03D2057028
Client Project/Site: LeaMex 018

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

Attn: Josh Adams

JKramer

Authorized for release by:
11/1/2022 1:54:02 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: LeaMex 018

Laboratory Job ID: 890-3310-1
SDG: 03D2057028

Table of Contents

Eurofins Carlsbad
11/1/2022

Definitions/Glossary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high 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: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

Job ID: 890-3310-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3310-1

Receipt
The sample was received on 10/27/2022 4:11 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-3310-1).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-38226 and analytical batch 880-38213 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
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-38261 and analytical batch 880-38217 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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 880-38260 and analytical batch 880-38377 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: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

Client Sample ID: SS06

Date Collected: 10/27/22 13:45
Date Received: 10/27/22 16:11
Sample Depth: 0.2'

Lab Sample ID: 890-3310-1

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		10/31/22 09:37	10/31/22 12:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:37	10/31/22 12:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:37	10/31/22 12:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/22 09:37	10/31/22 12:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/22 09:37	10/31/22 12:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/22 09:37	10/31/22 12:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*10/31/22 09:37*	*10/31/22 12:15*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*10/31/22 09:37*	*10/31/22 12:15*	*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			11/01/22 13:51	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/01/22 13:05	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		10/31/22 10:25	10/31/22 15:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		10/31/22 10:25	10/31/22 15:17	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/31/22 10:25	10/31/22 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*10/31/22 10:25*	*10/31/22 15:17*	*1*
o-Terphenyl	*91*		*70 - 130*	*10/31/22 10:25*	*10/31/22 15:17*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.6**		4.96		mg/Kg			11/01/22 12:04	1

Surrogate Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3309-A-3-B MS	Matrix Spike	108	104
890-3309-A-3-C MSD	Matrix Spike Duplicate	81	90
890-3310-1	SS06	90	87
LCS 880-38226/1-A	Lab Control Sample	98	109
LCSD 880-38226/2-A	Lab Control Sample Dup	90	108
MB 880-38226/5-A	Method Blank	83	90

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3310-1	SS06	80	91
890-3333-A-1-D MS	Matrix Spike	102	103
890-3333-A-1-E MSD	Matrix Spike Duplicate	102	104
LCS 880-38261/2-A	Lab Control Sample	131 S1+	146 S1+
LCSD 880-38261/3-A	Lab Control Sample Dup	133 S1+	148 S1+
MB 880-38261/1-A	Method Blank	87	99

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38226/5-A
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38226

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/22 09:37	10/31/22 11:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/31/22 09:37	10/31/22 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*10/31/22 09:37*	*10/31/22 11:33*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*10/31/22 09:37*	*10/31/22 11:33*	*1*

Lab Sample ID: LCS 880-38226/1-A
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38226

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1062		mg/Kg		106	70 - 130		
Toluene			0.100	0.08993		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.08912		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1829		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.09028		mg/Kg		90	70 - 130		

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

Lab Sample ID: LCSD 880-38226/2-A
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38226

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1046		mg/Kg		105	70 - 130	1	35
Toluene			0.100	0.08779		mg/Kg		88	70 - 130	2	35
Ethylbenzene			0.100	0.08254		mg/Kg		83	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1682		mg/Kg		84	70 - 130	8	35
o-Xylene			0.100	0.08215		mg/Kg		82	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-3309-A-3-B MS
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00198	U	0.0998	0.09077		mg/Kg		91	70 - 130		
Toluene	<0.00198	U	0.0998	0.08304		mg/Kg		83	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

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

Lab Sample ID: 890-3309-A-3-B MS
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U	0.0998	0.08672		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1	0.200	0.1763		mg/Kg		88	70 - 130
o-Xylene	<0.00198	U F2 F1	0.0998	0.08506		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-3309-A-3-C MSD
Matrix: Solid
Analysis Batch: 38213

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38226

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.0990	0.06946		mg/Kg		70	70 - 130	27	35
Toluene	<0.00198	U	0.0990	0.07239		mg/Kg		73	70 - 130	14	35
Ethylbenzene	<0.00198	U	0.0990	0.07063		mg/Kg		71	70 - 130	20	35
m-Xylene & p-Xylene	<0.00397	U F1	0.198	0.1246	F1	mg/Kg		63	70 - 130	34	35
o-Xylene	<0.00198	U F2 F1	0.0990	0.05717	F2 F1	mg/Kg		57	70 - 130	39	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

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

Lab Sample ID: MB 880-38261/1-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38261

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		10/31/22 10:25	10/31/22 09:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/22 10:25	10/31/22 09:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/31/22 10:25*	*10/31/22 09:53*	*1*

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	903.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1384	*+	mg/Kg		138	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

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

Lab Sample ID: LCS 880-38261/2-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38261

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	131	S1+	70 - 130
o-Terphenyl	146	S1+	70 - 130

Lab Sample ID: LCSD 880-38261/3-A
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38261

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	944.8		mg/Kg		94	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1439	*+	mg/Kg		144	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	148	S1+	70 - 130

Lab Sample ID: 890-3333-A-1-D MS
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38261

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	997	863.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *+	997	1014		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-3333-A-1-E MSD
Matrix: Solid
Analysis Batch: 38217

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	861.4		mg/Kg		84	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	1025		mg/Kg		101	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	104		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38260/1-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/01/22 08:20	1

Lab Sample ID: LCS 880-38260/2-A
Matrix: Solid
Analysis Batch: 38377

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.0		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-38260/3-A
Matrix: Solid
Analysis Batch: 38377

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	253.4		mg/Kg		101	90 - 110	2	20

Lab Sample ID: 890-3306-A-1-C MS
Matrix: Solid
Analysis Batch: 38377

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	102	F1	250	333.0		mg/Kg		93	90 - 110		

Lab Sample ID: 890-3306-A-1-D MSD
Matrix: Solid
Analysis Batch: 38377

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	102	F1	250	324.7	F1	mg/Kg		89	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

GC VOA

Analysis Batch: 38213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3310-1	SS06	Total/NA	Solid	8021B	38226
MB 880-38226/5-A	Method Blank	Total/NA	Solid	8021B	38226
LCS 880-38226/1-A	Lab Control Sample	Total/NA	Solid	8021B	38226
LCSD 880-38226/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38226
890-3309-A-3-B MS	Matrix Spike	Total/NA	Solid	8021B	38226
890-3309-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38226

Prep Batch: 38226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3310-1	SS06	Total/NA	Solid	5035	
MB 880-38226/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38226/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38226/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3309-A-3-B MS	Matrix Spike	Total/NA	Solid	5035	
890-3309-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3310-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38217

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3310-1	SS06	Total/NA	Solid	8015B NM	38261
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015B NM	38261
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38261
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38261
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38261
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38261

Prep Batch: 38261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3310-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-38261/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38261/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38261/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3333-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3333-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3310-1	SS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3310-1	SS06	Soluble	Solid	DI Leach	
MB 880-38260/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

HPLC/IC (Continued)

Leach Batch: 38260 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3306-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3306-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 38377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3310-1	SS06	Soluble	Solid	300.0	38260
MB 880-38260/1-A	Method Blank	Soluble	Solid	300.0	38260
LCS 880-38260/2-A	Lab Control Sample	Soluble	Solid	300.0	38260
LCSD 880-38260/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38260
890-3306-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	38260
890-3306-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38260

Lab Chronicle

Client: Ensolum
Project/Site: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

Client Sample ID: SS06

Date Collected: 10/27/22 13:45
Date Received: 10/27/22 16:11

Lab Sample ID: 890-3310-1

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	38226	10/31/22 09:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38213	10/31/22 12:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38400	11/01/22 13:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38387	11/01/22 13:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38261	10/31/22 10:25	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38217	10/31/22 15:17	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	38260	10/31/22 10:21	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38377	11/01/22 12:04	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: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

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: LeaMex 018

Job ID: 890-3310-1
SDG: 03D2057028

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3310-1	SS06	Solid	10/27/22 13:45	10/27/22 16:11	0.2'

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Chain of Custody

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

Work Order No: _____

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

Work Order Comments

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

Project Name:	Leamex 018	Turn Around	
Project Number:	03D2057028	☑ Routine ☑ Rush	
Project Location:	32.830697, -103.662348	Due Date:	3day
Sampler's Name:	Juliana Falcomata	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:	TAM-002	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	4.8	
Total Containers:		Corrected Temperature:	4.6	

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: TPH	BTEX	Chlorides
SS06	S	10-27-22	1345	.2"	C	1	✓	✓	✓

Sample Comments

AFE: 0000000004711
Cost Code: GA130323

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	Falcomata	Amanda Stutz	10/27/22 1613			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3310-1
SDG Number: 03D2057028

Login Number: 3310
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.	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: 890-3310-1
SDG Number: 03D2057028

Login Number: 3310
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/31/22 08:40 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

PREPARED FOR

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

Generated 12/6/2022 1:30:04 PM Revision 1

JOB DESCRIPTION

Leamex 018
SDG NUMBER 03D2057028

JOB NUMBER

890-3565-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

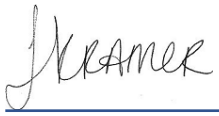
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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12/6/2022 1:30:04 PM
Revision 1

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

Client: Ensolum
Project/Site: Leamex 018

Laboratory Job ID: 890-3565-1
SDG: 03D2057028

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

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

HPLC/IC

Qualifier	Qualifier Description
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: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

Job ID: 890-3565-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3565-1

REVISION

The report being provided is a revision of the original report sent on 12/5/2022. The report (revision 1) is being revised due to Per clent email, requested sample ID change.

Report revision history

Receipt
The sample was received on 11/28/2022 3:37 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 8.0°C

Receipt Exceptions
On <date> client authorized <CHOOSE_ONE> sub contract/work share for <Insert_Analyses> for the following samples SS07 (890-3565-1).

The following > were received and analyzed from an unpreserved bulk soil jar: SS07 (890-3565-1).

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-40737/32), (CCV 880-40737/48), (LCS 880-40765/2-A) and (LCSD 880-40765/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-40765 and analytical batch 880-40737 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3569-A-1-D) and (890-3569-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS07 (890-3565-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-40765 and analytical batch 880-40737 were outside control limits. Non-homogeneity is 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
Method 300_ORGFM_28D: The matrix spike (MS) recoveries for preparation batch 880-40727 and analytical batch 880-40840 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.The associated samples are: SS07 (890-3565-1), (890-3563-A-1-B) and (890-3563-A-1-C MS).

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: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

Client Sample ID: SS07

Date Collected: 11/28/22 10:05
Date Received: 11/28/22 15:37
Sample Depth: 0.2

Lab Sample ID: 890-3565-1

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		11/29/22 16:02	12/02/22 22:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/29/22 16:02	12/02/22 22:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/29/22 16:02	12/02/22 22:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/29/22 16:02	12/02/22 22:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/29/22 16:02	12/02/22 22:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/29/22 16:02	12/02/22 22:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*11/29/22 16:02*	*12/02/22 22:04*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*11/29/22 16:02*	*12/02/22 22:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/05/22 14:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/02/22 14:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/01/22 10:39	12/02/22 07:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/01/22 10:39	12/02/22 07:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/01/22 10:39	12/02/22 07:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*12/01/22 10:39*	*12/02/22 07:23*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*12/01/22 10:39*	*12/02/22 07:23*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.4**		5.05		mg/Kg			12/01/22 22:27	1

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3549-A-1-C MS	Matrix Spike	114	102
890-3549-A-1-D MSD	Matrix Spike Duplicate	104	101
890-3565-1	SS07	115	89
LCS 880-40625/1-A	Lab Control Sample	105	100
LCSD 880-40625/2-A	Lab Control Sample Dup	104	97
MB 880-40625/5-A	Method Blank	68 S1-	94

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3565-1	SS07	122	144 S1+
890-3569-A-1-E MS	Matrix Spike	117	126
890-3569-A-1-F MSD	Matrix Spike Duplicate	136 S1+	142 S1+
LCS 880-40765/2-A	Lab Control Sample	179 S1+	213 S1+
LCSD 880-40765/3-A	Lab Control Sample Dup	172 S1+	204 S1+
MB 880-40765/1-A	Method Blank	108	140 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-40625/5-A
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 40625

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/29/22 16:02	12/02/22 11:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/29/22 16:02	12/02/22 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*11/29/22 16:02*	*12/02/22 11:45*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/29/22 16:02*	*12/02/22 11:45*	*1*

Lab Sample ID: LCS 880-40625/1-A
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40625

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1252		mg/Kg		125	70 - 130		
Toluene			0.100	0.1206		mg/Kg		121	70 - 130		
Ethylbenzene			0.100	0.1093		mg/Kg		109	70 - 130		
m-Xylene & p-Xylene			0.200	0.2198		mg/Kg		110	70 - 130		
o-Xylene			0.100	0.1069		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-40625/2-A
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40625

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1186		mg/Kg		119	70 - 130	5	35
Toluene			0.100	0.1151		mg/Kg		115	70 - 130	5	35
Ethylbenzene			0.100	0.1044		mg/Kg		104	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2094		mg/Kg		105	70 - 130	5	35
o-Xylene			0.100	0.1069		mg/Kg		107	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-3549-A-1-C MS
Matrix: Solid
Analysis Batch: 40842

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40625

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.1021		mg/Kg		103	70 - 130		
Toluene	<0.00201	U	0.0996	0.1062		mg/Kg		107	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

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

Lab Sample ID: 890-3549-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40842 — **Prep Batch: 40625**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.0996	0.1009		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2022		mg/Kg		101	70 - 130
o-Xylene	<0.00201	U	0.0996	0.1035		mg/Kg		104	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3549-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40842 — **Prep Batch: 40625**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.09136		mg/Kg		92	70 - 130	11	35
Toluene	<0.00201	U	0.0990	0.09165		mg/Kg		93	70 - 130	15	35
Ethylbenzene	<0.00201	U	0.0990	0.08677		mg/Kg		88	70 - 130	15	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1732		mg/Kg		87	70 - 130	15	35
o-Xylene	<0.00201	U	0.0990	0.08889		mg/Kg		90	70 - 130	15	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 880-40765/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40737 — **Prep Batch: 40765**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/01/22 10:39	12/01/22 22:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/01/22 10:39	12/01/22 22:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/01/22 10:39	12/01/22 22:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*12/01/22 10:39*	*12/01/22 22:24*	*1*
o-Terphenyl	*140*	*S1+*	*70 - 130*	*12/01/22 10:39*	*12/01/22 22:24*	*1*

Lab Sample ID: LCS 880-40765/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 40737 — **Prep Batch: 40765**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	846.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1070		mg/Kg		107	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

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

Lab Sample ID: LCS 880-40765/2-A
Matrix: Solid
Analysis Batch: 40737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 40765

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	179	S1+	70 - 130
o-Terphenyl	213	S1+	70 - 130

Lab Sample ID: LCSD 880-40765/3-A
Matrix: Solid
Analysis Batch: 40737

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 40765

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	805.9		mg/Kg		81	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	1023		mg/Kg		102	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	172	S1+	70 - 130
o-Terphenyl	204	S1+	70 - 130

Lab Sample ID: 890-3569-A-1-E MS
Matrix: Solid
Analysis Batch: 40737

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 40765

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	999	1065		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	54.2	F1	999	1306		mg/Kg		125	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	126		70 - 130

Lab Sample ID: 890-3569-A-1-F MSD
Matrix: Solid
Analysis Batch: 40737

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 40765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1233		mg/Kg		124	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	54.2	F1	997	1501	F1	mg/Kg		145	70 - 130	14	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	136	S1+	70 - 130
o-Terphenyl	142	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-40727/1-A
Matrix: Solid
Analysis Batch: 40840

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/01/22 21:27	1

Lab Sample ID: LCS 880-40727/2-A
Matrix: Solid
Analysis Batch: 40840

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	261.2		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-40727/3-A
Matrix: Solid
Analysis Batch: 40840

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	274.8		mg/Kg		110	90 - 110	5	20

Lab Sample ID: 890-3563-A-1-C MS
Matrix: Solid
Analysis Batch: 40840

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	17.4	F1	248	305.8	F1	mg/Kg		117	90 - 110		

Lab Sample ID: 890-3563-A-1-D MSD
Matrix: Solid
Analysis Batch: 40840

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	17.4	F1	248	288.7		mg/Kg		110	90 - 110	6	20

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

GC VOA

Prep Batch: 40625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3565-1	SS07	Total/NA	Solid	5035	
MB 880-40625/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-40625/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-40625/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3549-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3549-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 40842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3565-1	SS07	Total/NA	Solid	8021B	40625
MB 880-40625/5-A	Method Blank	Total/NA	Solid	8021B	40625
LCS 880-40625/1-A	Lab Control Sample	Total/NA	Solid	8021B	40625
LCSD 880-40625/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	40625
890-3549-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	40625
890-3549-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	40625

Analysis Batch: 41058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3565-1	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 40737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3565-1	SS07	Total/NA	Solid	8015B NM	40765
MB 880-40765/1-A	Method Blank	Total/NA	Solid	8015B NM	40765
LCS 880-40765/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	40765
LCSD 880-40765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	40765
890-3569-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	40765
890-3569-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	40765

Prep Batch: 40765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3565-1	SS07	Total/NA	Solid	8015NM Prep	
MB 880-40765/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-40765/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-40765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3569-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3569-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 40905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3565-1	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 40727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3565-1	SS07	Soluble	Solid	DI Leach	
MB 880-40727/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-40727/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-40727/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

HPLC/IC (Continued)

Leach Batch: 40727 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3563-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3563-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 40840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3565-1	SS07	Soluble	Solid	300.0	40727
MB 880-40727/1-A	Method Blank	Soluble	Solid	300.0	40727
LCS 880-40727/2-A	Lab Control Sample	Soluble	Solid	300.0	40727
LCSD 880-40727/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	40727
890-3563-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	40727
890-3563-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	40727

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

Client Sample ID: SS07

Date Collected: 11/28/22 10:05
Date Received: 11/28/22 15:37

Lab Sample ID: 890-3565-1

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	40625	11/29/22 16:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40842	12/02/22 22:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			41058	12/05/22 14:17	AJ	EET MID
Total/NA	Analysis	8015 NM		1			40905	12/02/22 14:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	40765	12/01/22 10:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	40737	12/02/22 07:23	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	40727	11/30/22 15:52	SMC	EET MID
Soluble	Analysis	300.0		1			40840	12/01/22 22:27	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

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: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

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: Leamex 018

Job ID: 890-3565-1
SDG: 03D2057028

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3565-1	SS07	Solid	11/28/22 10:05	11/28/22 15:37	0.2

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	303-517-8437	Email:	kjennings@ensolum.com, jadams@ensolum.com

Work Order Comments

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

Project Name:	Ramey 018	Turn Around	
Project Number:	03D2057028	☑ Routine ☐ Rush	
Project Location:	32.830697, -103.662348	Due Date:	
Sampler's Name:	Julianna Falcomata	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TWM007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.2
Total Containers:		Corrected Temperature:	5.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS08	S	11-28-22	1005	.2'	C	1		✓	✓	✓

890-3565 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

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		11-28-22 1537			
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3565-1
SDG Number: 03D2057028

Login Number: 3565
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: 890-3565-1
SDG Number: 03D2057028

Login Number: 3565
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/30/22 12:31 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-3368-1
Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Leamex 18

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/7/2022 3:33:14 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: Leamex 18

Laboratory Job ID: 890-3368-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Job ID: 890-3368-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3368-1

Receipt
The samples were received on 11/3/2022 8:13 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 received and analyzed from an unpreserved bulk soil jar: FS01 (890-3368-1), FS02 (890-3368-2), FS03 (890-3368-3), FS04 (890-3368-4), FS05 (890-3368-5), FS06 (890-3368-6), FS07 (890-3368-7), FS08 (890-3368-8), FS09 (890-3368-9), FS10 (890-3368-10) and FS11 (890-3368-11).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-38647 and analytical batch 880-38705 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
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: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS01

Lab Sample ID: 890-3368-1
Matrix: Solid
Date Collected: 11/02/22 11:30
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1 F2	0.00202		mg/Kg		11/03/22 14:12	11/04/22 13:47	1
Toluene	<0.00202	U F1 F2	0.00202		mg/Kg		11/03/22 14:12	11/04/22 13:47	1
Ethylbenzene	<0.00202	U F1 F2	0.00202		mg/Kg		11/03/22 14:12	11/04/22 13:47	1
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.00403		mg/Kg		11/03/22 14:12	11/04/22 13:47	1
o-Xylene	<0.00202	U F1 F2	0.00202		mg/Kg		11/03/22 14:12	11/04/22 13:47	1
Xylenes, Total	<0.00403	U F1 F2	0.00403		mg/Kg		11/03/22 14:12	11/04/22 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/03/22 14:12*	*11/04/22 13:47*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/03/22 14:12*	*11/04/22 13:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			11/04/22 15:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/07/22 11:56	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	50.0		mg/Kg		11/04/22 13:34	11/05/22 21:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/05/22 21:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/05/22 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*11/04/22 13:34*	*11/05/22 21:59*	*1*
o-Terphenyl	*98*		*70 - 130*	*11/04/22 13:34*	*11/05/22 21:59*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**91.0**		5.00		mg/Kg			11/04/22 19:23	1

Client Sample ID: FS02

Lab Sample ID: 890-3368-2
Matrix: Solid
Date Collected: 11/02/22 11:35
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 14:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 14:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 14:16	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/03/22 14:12	11/04/22 14:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 14:16	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/03/22 14:12	11/04/22 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/03/22 14:12*	*11/04/22 14:16*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS02

Lab Sample ID: 890-3368-2
Matrix: Solid
Date Collected: 11/02/22 11:35
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/03/22 14:12*	*11/04/22 14:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			11/04/22 15:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**84.4**		49.8	mg/Kg			11/07/22 11:56	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	<49.8	U	49.8	mg/Kg		11/04/22 13:34	11/06/22 01:35	1
Diesel Range Organics (Over C10-C28)	**84.4**		49.8	mg/Kg		11/04/22 13:34	11/06/22 01:35	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/04/22 13:34	11/06/22 01:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*98*		*70 - 130*	*11/04/22 13:34*	*11/06/22 01:35*	*1*
o-Terphenyl	*94*		*70 - 130*	*11/04/22 13:34*	*11/06/22 01:35*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.5**		4.99	mg/Kg			11/04/22 19:28	1

Client Sample ID: FS03

Lab Sample ID: 890-3368-3
Matrix: Solid
Date Collected: 11/02/22 11:40
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/03/22 14:12	11/04/22 14:36	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/03/22 14:12	11/04/22 14:36	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		11/03/22 14:12	11/04/22 14:36	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		11/03/22 14:12	11/04/22 14:36	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		11/03/22 14:12	11/04/22 14:36	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		11/03/22 14:12	11/04/22 14:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*11/03/22 14:12*	*11/04/22 14:36*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*11/03/22 14:12*	*11/04/22 14:36*	*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			11/04/22 15:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**40.6**		49.9	mg/Kg			11/07/22 11:56	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS03

Lab Sample ID: 890-3368-3
Matrix: Solid
Date Collected: 11/02/22 11:40
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/04/22 13:34	11/05/22 23:24	1
Diesel Range Organics (Over C10-C28)	**40.6**		49.9		mg/Kg		11/04/22 13:34	11/05/22 23:24	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/04/22 13:34	11/05/22 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/04/22 13:34*	*11/05/22 23:24*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/04/22 13:34*	*11/05/22 23:24*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.7**		4.98		mg/Kg			11/04/22 19:43	1

Client Sample ID: FS04

Lab Sample ID: 890-3368-4
Matrix: Solid
Date Collected: 11/02/22 11:45
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/03/22 14:12	11/04/22 14:57	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/03/22 14:12	11/04/22 14:57	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/03/22 14:12	11/04/22 14:57	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/03/22 14:12	11/04/22 14:57	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/03/22 14:12	11/04/22 14:57	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/03/22 14:12	11/04/22 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*11/03/22 14:12*	*11/04/22 14:57*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/03/22 14:12*	*11/04/22 14:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/04/22 15:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**18.7**		50.0		mg/Kg			11/07/22 11:56	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	50.0		mg/Kg		11/04/22 13:34	11/06/22 00:49	1
Diesel Range Organics (Over C10-C28)	**18.7**		50.0		mg/Kg		11/04/22 13:34	11/06/22 00:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 00:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*11/04/22 13:34*	*11/06/22 00:49*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/04/22 13:34*	*11/06/22 00:49*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS04

Lab Sample ID: 890-3368-4
Matrix: Solid
Date Collected: 11/02/22 11:45
Date Received: 11/03/22 08:13
Sample Depth: 3'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.5**		4.95		mg/Kg			11/04/22 19:47	1

Client Sample ID: FS05

Lab Sample ID: 890-3368-5
Matrix: Solid
Date Collected: 11/02/22 11:50
Date Received: 11/03/22 08:13
Sample Depth: 3'

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		11/03/22 14:12	11/04/22 15:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/03/22 14:12	11/04/22 15:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/03/22 14:12	11/04/22 15:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/03/22 14:12	11/04/22 15:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/03/22 14:12	11/04/22 15:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/03/22 14:12	11/04/22 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/03/22 14:12*	*11/04/22 15:17*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/03/22 14:12*	*11/04/22 15:17*	*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			11/04/22 15:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**16.5**		50.0		mg/Kg			11/07/22 11:56	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	50.0		mg/Kg		11/04/22 13:34	11/06/22 01:10	1
Diesel Range Organics (Over C10-C28)	**16.5**		50.0		mg/Kg		11/04/22 13:34	11/06/22 01:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 01:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/04/22 13:34*	*11/06/22 01:10*	*1*
o-Terphenyl	*97*		*70 - 130*	*11/04/22 13:34*	*11/06/22 01:10*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65.4**		5.00		mg/Kg			11/04/22 20:02	1

Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS06

Lab Sample ID: 890-3368-6
Matrix: Solid
Date Collected: 11/02/22 11:55
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 15:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 15:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 15:38	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/03/22 14:12	11/04/22 15:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 15:38	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/03/22 14:12	11/04/22 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*11/03/22 14:12*	*11/04/22 15:38*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*11/03/22 14:12*	*11/04/22 15:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/04/22 15:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/07/22 11:56	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	50.0		mg/Kg		11/04/22 13:34	11/05/22 23:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/05/22 23:03	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/05/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*11/04/22 13:34*	*11/05/22 23:03*	*1*
o-Terphenyl	*107*		*70 - 130*	*11/04/22 13:34*	*11/05/22 23:03*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.3**		4.99		mg/Kg			11/04/22 20:07	1

Client Sample ID: FS07

Lab Sample ID: 890-3368-7
Matrix: Solid
Date Collected: 11/02/22 12:00
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 15:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 15:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 15:58	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/03/22 14:12	11/04/22 15:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 15:58	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/03/22 14:12	11/04/22 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*11/03/22 14:12*	*11/04/22 15:58*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS07

Lab Sample ID: 890-3368-7
Matrix: Solid
Date Collected: 11/02/22 12:00
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*11/03/22 14:12*	*11/04/22 15:58*	*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			11/07/22 15:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**11.1**		50.0	mg/Kg			11/07/22 11:56	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	50.0	mg/Kg		11/04/22 13:34	11/06/22 01:31	1
Diesel Range Organics (Over C10-C28)	**11.1**		50.0	mg/Kg		11/04/22 13:34	11/06/22 01:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/04/22 13:34	11/06/22 01:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*106*		*70 - 130*	*11/04/22 13:34*	*11/06/22 01:31*	*1*
o-Terphenyl	*101*		*70 - 130*	*11/04/22 13:34*	*11/06/22 01:31*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.1**		5.01	mg/Kg			11/04/22 20:12	1

Client Sample ID: FS08

Lab Sample ID: 890-3368-8
Matrix: Solid
Date Collected: 11/02/22 12:05
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		11/03/22 14:12	11/04/22 16:18	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/03/22 14:12	11/04/22 16:18	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/03/22 14:12	11/04/22 16:18	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/03/22 14:12	11/04/22 16:18	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/03/22 14:12	11/04/22 16:18	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/03/22 14:12	11/04/22 16:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/03/22 14:12*	*11/04/22 16:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/03/22 14:12*	*11/04/22 16:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			11/07/22 15:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**18.0**		50.0	mg/Kg			11/07/22 11:56	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS08

Lab Sample ID: 890-3368-8
Matrix: Solid
Date Collected: 11/02/22 12:05
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 01:52	1
Diesel Range Organics (Over C10-C28)	**18.0**		50.0		mg/Kg		11/04/22 13:34	11/06/22 01:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 01:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*11/04/22 13:34*	*11/06/22 01:52*	*1*
o-Terphenyl	*108*		*70 - 130*	*11/04/22 13:34*	*11/06/22 01:52*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32.2**		5.00		mg/Kg			11/04/22 20:17	1

Client Sample ID: FS09

Lab Sample ID: 890-3368-9
Matrix: Solid
Date Collected: 11/02/22 12:10
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/03/22 14:12	11/04/22 16:39	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/03/22 14:12	11/04/22 16:39	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/03/22 14:12	11/04/22 16:39	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/03/22 14:12	11/04/22 16:39	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/03/22 14:12	11/04/22 16:39	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/03/22 14:12	11/04/22 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/03/22 14:12*	*11/04/22 16:39*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/03/22 14:12*	*11/04/22 16:39*	*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			11/07/22 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			11/07/22 11:56	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		11/04/22 13:34	11/05/22 23:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/04/22 13:34	11/05/22 23:45	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/04/22 13:34	11/05/22 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*11/04/22 13:34*	*11/05/22 23:45*	*1*
o-Terphenyl	*122*		*70 - 130*	*11/04/22 13:34*	*11/05/22 23:45*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS09

Lab Sample ID: 890-3368-9
Matrix: Solid
Date Collected: 11/02/22 12:10
Date Received: 11/03/22 08:13
Sample Depth: 3'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.9		4.98		mg/Kg			11/04/22 20:22	1

Client Sample ID: FS10

Lab Sample ID: 890-3368-10
Matrix: Solid
Date Collected: 11/02/22 12:15
Date Received: 11/03/22 08:13
Sample Depth: 3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 16:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 16:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 16:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/03/22 14:12	11/04/22 16:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 16:59	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/03/22 14:12	11/04/22 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*11/03/22 14:12*	*11/04/22 16:59*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/03/22 14:12*	*11/04/22 16:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/07/22 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			11/07/22 11:56	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		11/04/22 13:34	11/06/22 00:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/04/22 13:34	11/06/22 00:07	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/04/22 13:34	11/06/22 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*11/04/22 13:34*	*11/06/22 00:07*	*1*
o-Terphenyl	*115*		*70 - 130*	*11/04/22 13:34*	*11/06/22 00:07*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.5		4.95		mg/Kg			11/04/22 20:27	1

Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS11

Date Collected: 11/02/22 12:20
Date Received: 11/03/22 08:13
Sample Depth: 3'

Lab Sample ID: 890-3368-11

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		11/03/22 14:12	11/04/22 19:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/03/22 14:12	11/04/22 19:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/03/22 14:12	11/04/22 19:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/03/22 14:12	11/04/22 19:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/03/22 14:12	11/04/22 19:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/03/22 14:12	11/04/22 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/03/22 14:12*	*11/04/22 19:10*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/03/22 14:12*	*11/04/22 19:10*	*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			11/07/22 15:29	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/07/22 11:56	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	50.0		mg/Kg		11/04/22 13:34	11/06/22 00:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 00:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*11/04/22 13:34*	*11/06/22 00:28*	*1*
o-Terphenyl	*105*		*70 - 130*	*11/04/22 13:34*	*11/06/22 00:28*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51.6**		4.97		mg/Kg			11/04/22 20:32	1

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
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)										
890-3368-1	FS01	93	100										
890-3368-1 MS	FS01	117	102										
890-3368-1 MSD	FS01	119	87										
890-3368-2	FS02	107	93										
890-3368-3	FS03	119	103										
890-3368-4	FS04	124	96										
890-3368-5	FS05	120	98										
890-3368-6	FS06	122	93										
890-3368-7	FS07	117	91										
890-3368-8	FS08	110	101										
890-3368-9	FS09	120	102										
890-3368-10	FS10	120	100										
890-3368-11	FS11	107	101										
LCS 880-38647/1-A	Lab Control Sample	108	99										
LCSD 880-38647/2-A	Lab Control Sample Dup	109	101										
MB 880-38647/5-A	Method Blank	89	101										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-3368-1	FS01	91	98										
890-3368-1 MS	FS01	99	85										
890-3368-1 MSD	FS01	95	81										
890-3368-2	FS02	98	94										
890-3368-3	FS03	102	106										
890-3368-4	FS04	106	105										
890-3368-5	FS05	96	97										
890-3368-6	FS06	100	107										
890-3368-7	FS07	106	101										
890-3368-8	FS08	118	108										
890-3368-9	FS09	121	122										
890-3368-10	FS10	114	115										
890-3368-11	FS11	102	105										
LCS 880-38741/2-A	Lab Control Sample	96	101										
LCSD 880-38741/3-A	Lab Control Sample Dup	95	99										
MB 880-38741/1-A	Method Blank	96	106										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38647/5-A
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38647

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/03/22 14:12	11/04/22 13:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*11/03/22 14:12*	*11/04/22 13:21*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/03/22 14:12*	*11/04/22 13:21*	*1*

Lab Sample ID: LCS 880-38647/1-A
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38647

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09434		mg/Kg		94	70 - 130		
Toluene			0.100	0.1036		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1062		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.1880		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09220		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-38647/2-A
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38647

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09800		mg/Kg		98	70 - 130	4	35
Toluene			0.100	0.1092		mg/Kg		109	70 - 130	5	35
Ethylbenzene			0.100	0.1055		mg/Kg		106	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1858		mg/Kg		93	70 - 130	1	35
o-Xylene			0.100	0.09101		mg/Kg		91	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-3368-1 MS
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 38647

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U F1 F2	0.0998	0.005779	F1	mg/Kg		6	70 - 130		
Toluene	<0.00202	U F1 F2	0.0998	0.003954	F1	mg/Kg		4	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

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

Lab Sample ID: 890-3368-1 MS
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 38647

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U F1 F2	0.0998	0.003555	F1	mg/Kg		4	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.200	0.009125	F1	mg/Kg		5	70 - 130
o-Xylene	<0.00202	U F1 F2	0.0998	0.006871	F1	mg/Kg		7	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3368-1 MSD
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 38647

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0990	0.07647	F2	mg/Kg		77	70 - 130	172	35
Toluene	<0.00202	U F1 F2	0.0990	0.09996	F2	mg/Kg		101	70 - 130	185	35
Ethylbenzene	<0.00202	U F1 F2	0.0990	0.09454	F2	mg/Kg		95	70 - 130	186	35
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.198	0.1686	F2	mg/Kg		85	70 - 130	179	35
o-Xylene	<0.00202	U F1 F2	0.0990	0.08234	F2	mg/Kg		83	70 - 130	169	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

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

Lab Sample ID: MB 880-38741/1-A
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38741

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/04/22 13:34	11/05/22 20:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/04/22 13:34	11/05/22 20:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/04/22 13:34	11/05/22 20:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/04/22 13:34*	*11/05/22 20:56*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/04/22 13:34*	*11/05/22 20:56*	*1*

Lab Sample ID: LCS 880-38741/2-A
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38741

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	824.1		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1033		mg/Kg		103	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-38741/2-A
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38741

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: LCSD 880-38741/3-A
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38741

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	818.0		mg/Kg		82	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	986.9		mg/Kg		99	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-3368-1 MS
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 38741

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	997	788.7		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	997	955.5		mg/Kg		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 890-3368-1 MSD
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 38741

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	787.1		mg/Kg		79	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	900.2		mg/Kg		87	70 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	81		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38712/1-A
Matrix: Solid
Analysis Batch: 38765

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/04/22 18:03	1

Lab Sample ID: LCS 880-38712/2-A
Matrix: Solid
Analysis Batch: 38765

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	256.0		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-38712/3-A
Matrix: Solid
Analysis Batch: 38765

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	256.2		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-3368-2 MS
Matrix: Solid
Analysis Batch: 38765

Client Sample ID: FS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	40.5		250	301.1		mg/Kg		104	90 - 110		

Lab Sample ID: 890-3368-2 MSD
Matrix: Solid
Analysis Batch: 38765

Client Sample ID: FS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	40.5		250	299.6		mg/Kg		104	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

GC VOA

Prep Batch: 38647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3368-1	FS01	Total/NA	Solid	5035	
890-3368-2	FS02	Total/NA	Solid	5035	
890-3368-3	FS03	Total/NA	Solid	5035	
890-3368-4	FS04	Total/NA	Solid	5035	
890-3368-5	FS05	Total/NA	Solid	5035	
890-3368-6	FS06	Total/NA	Solid	5035	
890-3368-7	FS07	Total/NA	Solid	5035	
890-3368-8	FS08	Total/NA	Solid	5035	
890-3368-9	FS09	Total/NA	Solid	5035	
890-3368-10	FS10	Total/NA	Solid	5035	
890-3368-11	FS11	Total/NA	Solid	5035	
MB 880-38647/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38647/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38647/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3368-1 MS	FS01	Total/NA	Solid	5035	
890-3368-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 38705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3368-1	FS01	Total/NA	Solid	8021B	38647
890-3368-2	FS02	Total/NA	Solid	8021B	38647
890-3368-3	FS03	Total/NA	Solid	8021B	38647
890-3368-4	FS04	Total/NA	Solid	8021B	38647
890-3368-5	FS05	Total/NA	Solid	8021B	38647
890-3368-6	FS06	Total/NA	Solid	8021B	38647
890-3368-7	FS07	Total/NA	Solid	8021B	38647
890-3368-8	FS08	Total/NA	Solid	8021B	38647
890-3368-9	FS09	Total/NA	Solid	8021B	38647
890-3368-10	FS10	Total/NA	Solid	8021B	38647
890-3368-11	FS11	Total/NA	Solid	8021B	38647
MB 880-38647/5-A	Method Blank	Total/NA	Solid	8021B	38647
LCS 880-38647/1-A	Lab Control Sample	Total/NA	Solid	8021B	38647
LCSD 880-38647/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38647
890-3368-1 MS	FS01	Total/NA	Solid	8021B	38647
890-3368-1 MSD	FS01	Total/NA	Solid	8021B	38647

Analysis Batch: 38749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3368-1	FS01	Total/NA	Solid	Total BTEX	
890-3368-2	FS02	Total/NA	Solid	Total BTEX	
890-3368-3	FS03	Total/NA	Solid	Total BTEX	
890-3368-4	FS04	Total/NA	Solid	Total BTEX	
890-3368-5	FS05	Total/NA	Solid	Total BTEX	
890-3368-6	FS06	Total/NA	Solid	Total BTEX	
890-3368-7	FS07	Total/NA	Solid	Total BTEX	
890-3368-8	FS08	Total/NA	Solid	Total BTEX	
890-3368-9	FS09	Total/NA	Solid	Total BTEX	
890-3368-10	FS10	Total/NA	Solid	Total BTEX	
890-3368-11	FS11	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

GC Semi VOA

Prep Batch: 38741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3368-1	FS01	Total/NA	Solid	8015NM Prep	
890-3368-2	FS02	Total/NA	Solid	8015NM Prep	
890-3368-3	FS03	Total/NA	Solid	8015NM Prep	
890-3368-4	FS04	Total/NA	Solid	8015NM Prep	
890-3368-5	FS05	Total/NA	Solid	8015NM Prep	
890-3368-6	FS06	Total/NA	Solid	8015NM Prep	
890-3368-7	FS07	Total/NA	Solid	8015NM Prep	
890-3368-8	FS08	Total/NA	Solid	8015NM Prep	
890-3368-9	FS09	Total/NA	Solid	8015NM Prep	
890-3368-10	FS10	Total/NA	Solid	8015NM Prep	
890-3368-11	FS11	Total/NA	Solid	8015NM Prep	
MB 880-38741/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38741/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38741/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3368-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-3368-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3368-1	FS01	Total/NA	Solid	8015B NM	38741
890-3368-2	FS02	Total/NA	Solid	8015B NM	38741
890-3368-3	FS03	Total/NA	Solid	8015B NM	38741
890-3368-4	FS04	Total/NA	Solid	8015B NM	38741
890-3368-5	FS05	Total/NA	Solid	8015B NM	38741
890-3368-6	FS06	Total/NA	Solid	8015B NM	38741
890-3368-7	FS07	Total/NA	Solid	8015B NM	38741
890-3368-8	FS08	Total/NA	Solid	8015B NM	38741
890-3368-9	FS09	Total/NA	Solid	8015B NM	38741
890-3368-10	FS10	Total/NA	Solid	8015B NM	38741
890-3368-11	FS11	Total/NA	Solid	8015B NM	38741
MB 880-38741/1-A	Method Blank	Total/NA	Solid	8015B NM	38741
LCS 880-38741/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38741
LCSD 880-38741/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38741
890-3368-1 MS	FS01	Total/NA	Solid	8015B NM	38741
890-3368-1 MSD	FS01	Total/NA	Solid	8015B NM	38741

Analysis Batch: 38875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3368-1	FS01	Total/NA	Solid	8015 NM	
890-3368-2	FS02	Total/NA	Solid	8015 NM	
890-3368-3	FS03	Total/NA	Solid	8015 NM	
890-3368-4	FS04	Total/NA	Solid	8015 NM	
890-3368-5	FS05	Total/NA	Solid	8015 NM	
890-3368-6	FS06	Total/NA	Solid	8015 NM	
890-3368-7	FS07	Total/NA	Solid	8015 NM	
890-3368-8	FS08	Total/NA	Solid	8015 NM	
890-3368-9	FS09	Total/NA	Solid	8015 NM	
890-3368-10	FS10	Total/NA	Solid	8015 NM	
890-3368-11	FS11	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 38712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3368-1	FS01	Soluble	Solid	DI Leach	
890-3368-2	FS02	Soluble	Solid	DI Leach	
890-3368-3	FS03	Soluble	Solid	DI Leach	
890-3368-4	FS04	Soluble	Solid	DI Leach	
890-3368-5	FS05	Soluble	Solid	DI Leach	
890-3368-6	FS06	Soluble	Solid	DI Leach	
890-3368-7	FS07	Soluble	Solid	DI Leach	
890-3368-8	FS08	Soluble	Solid	DI Leach	
890-3368-9	FS09	Soluble	Solid	DI Leach	
890-3368-10	FS10	Soluble	Solid	DI Leach	
890-3368-11	FS11	Soluble	Solid	DI Leach	
MB 880-38712/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38712/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38712/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3368-2 MS	FS02	Soluble	Solid	DI Leach	
890-3368-2 MSD	FS02	Soluble	Solid	DI Leach	

Analysis Batch: 38765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3368-1	FS01	Soluble	Solid	300.0	38712
890-3368-2	FS02	Soluble	Solid	300.0	38712
890-3368-3	FS03	Soluble	Solid	300.0	38712
890-3368-4	FS04	Soluble	Solid	300.0	38712
890-3368-5	FS05	Soluble	Solid	300.0	38712
890-3368-6	FS06	Soluble	Solid	300.0	38712
890-3368-7	FS07	Soluble	Solid	300.0	38712
890-3368-8	FS08	Soluble	Solid	300.0	38712
890-3368-9	FS09	Soluble	Solid	300.0	38712
890-3368-10	FS10	Soluble	Solid	300.0	38712
890-3368-11	FS11	Soluble	Solid	300.0	38712
MB 880-38712/1-A	Method Blank	Soluble	Solid	300.0	38712
LCS 880-38712/2-A	Lab Control Sample	Soluble	Solid	300.0	38712
LCSD 880-38712/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38712
890-3368-2 MS	FS02	Soluble	Solid	300.0	38712
890-3368-2 MSD	FS02	Soluble	Solid	300.0	38712

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS01

Date Collected: 11/02/22 11:30
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-1
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	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 13:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/04/22 15:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/05/22 21:59	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 19:23	CH	EET MID

Client Sample ID: FS02

Date Collected: 11/02/22 11:35
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-2
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	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 14:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/04/22 15:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 01:35	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 19:28	CH	EET MID

Client Sample ID: FS03

Date Collected: 11/02/22 11:40
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-3
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			5.05 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 14:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/04/22 15:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/05/22 23:24	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 19:43	CH	EET MID

Client Sample ID: FS04

Date Collected: 11/02/22 11:45
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 14:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/04/22 15:58	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS04

Date Collected: 11/02/22 11:45
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-4
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			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 00:49	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 19:47	CH	EET MID

Client Sample ID: FS05

Date Collected: 11/02/22 11:50
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-5
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			5.03 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 15:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/04/22 15:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 01:10	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 20:02	CH	EET MID

Client Sample ID: FS06

Date Collected: 11/02/22 11:55
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 15:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/04/22 15:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/05/22 23:03	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 20:07	CH	EET MID

Client Sample ID: FS07

Date Collected: 11/02/22 12:00
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 15:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/07/22 15:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 01:31	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS07

Lab Sample ID: 890-3368-7
Matrix: Solid
Date Collected: 11/02/22 12:00
Date Received: 11/03/22 08:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 20:12	CH	EET MID

Client Sample ID: FS08

Lab Sample ID: 890-3368-8
Matrix: Solid
Date Collected: 11/02/22 12:05
Date Received: 11/03/22 08:13

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	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 16:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/07/22 15:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 01:52	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 20:17	CH	EET MID

Client Sample ID: FS09

Lab Sample ID: 890-3368-9
Matrix: Solid
Date Collected: 11/02/22 12:10
Date Received: 11/03/22 08:13

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	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 16:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/07/22 15:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/05/22 23:45	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 20:22	CH	EET MID

Client Sample ID: FS10

Lab Sample ID: 890-3368-10
Matrix: Solid
Date Collected: 11/02/22 12:15
Date Received: 11/03/22 08:13

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	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 16:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/07/22 15:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 00:07	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 20:27	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Client Sample ID: FS11

Date Collected: 11/02/22 12:20
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3368-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 19:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38749	11/07/22 15:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			38875	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 00:28	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	38712	11/04/22 10:47	CH	EET MID
Soluble	Analysis	300.0		1			38765	11/04/22 20:32	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: Leamex 18

Job ID: 890-3368-1
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: Leamex 18

Job ID: 890-3368-1
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: Leamex 18

Job ID: 890-3368-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3368-1	FS01	Solid	11/02/22 11:30	11/03/22 08:13	3'
890-3368-2	FS02	Solid	11/02/22 11:35	11/03/22 08:13	3'
890-3368-3	FS03	Solid	11/02/22 11:40	11/03/22 08:13	3'
890-3368-4	FS04	Solid	11/02/22 11:45	11/03/22 08:13	3'
890-3368-5	FS05	Solid	11/02/22 11:50	11/03/22 08:13	3'
890-3368-6	FS06	Solid	11/02/22 11:55	11/03/22 08:13	3'
890-3368-7	FS07	Solid	11/02/22 12:00	11/03/22 08:13	3'
890-3368-8	FS08	Solid	11/02/22 12:05	11/03/22 08:13	3'
890-3368-9	FS09	Solid	11/02/22 12:10	11/03/22 08:13	3'
890-3368-10	FS10	Solid	11/02/22 12:15	11/03/22 08:13	3'
890-3368-11	FS11	Solid	11/02/22 12:20	11/03/22 08:13	3'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	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:	817.683.2503	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:	Leamex 18	Turn Around	
Project Number:	03D2057028	☑ Routine ☒ Rush	
Project Location:	Lea County, NM	Due Date:	48HR
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

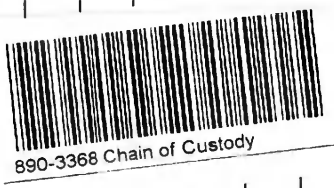
SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	Thm 207
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.2
Total Containers:		Corrected Temperature:	1.0

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS01	S	11.2.22	1130	3'	C	1		X	X	X
FS02	S	11.2.22	1135	3'	C	1		X	X	X
FS03	S	11.2.22	1140	3'	C	1		X	X	X
FS04	S	11.2.22	1145	3'	C	1		X	X	X
FS05	S	11.2.22	1150	3'	C	1		X	X	X
FS06	S	11.2.22	1155	3'	C	1		X	X	X
FS07	S	11.2.22	1200	3'	C	1		X	X	X
FS08	S	11.2.22	1205	3'	C	1		X	X	X
FS09	S	11.2.22	1210	3'	C	1		X	X	X
FS10	S	11.2.22	1215	3'	C	1		X	X	X

ANALYSIS REQUEST



Sample Comments

Incident Number

Cost Code- GA130323
AFE 000000000471

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		11/3/22 813	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	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:	817.683.2503	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:	Leamex 18	Turn Around	
Project Number:	03D2057028	☑ Routine ☒ Rush	
Project Location:	Lea County, NM	Due Date:	48HR
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:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
FS11	S	11.2.22	1220	3'	C	1		X	X	X

ANALYSIS REQUEST / Parameters

Preservative Codes

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

Sample Comments

Incident Number

Cost Code- GA130323
AFE 000000000471

11.2.22

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuff	11/3/22 813	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3368-1
SDG Number: Lea County NM

Login Number: 3368
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.	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: 890-3368-1
SDG Number: Lea County NM

Login Number: 3368
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/04/22 10:22 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: 890-3369-1
Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Leamex 18

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/7/2022 3:33:36 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: Leamex 18

Laboratory Job ID: 890-3369-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Job ID: 890-3369-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3369-1

Receipt
The samples were received on 11/3/2022 8:13 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 received and analyzed from an unpreserved bulk soil jar: SW01 (890-3369-1), SW02 (890-3369-2), SW03 (890-3369-3), SW04 (890-3369-4) and SW05 (890-3369-5).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-38647 and analytical batch 880-38705 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
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: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Client Sample ID: SW01

Lab Sample ID: 890-3369-1
Matrix: Solid
Date Collected: 11/02/22 12:25
Date Received: 11/03/22 08:13
Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 19:30	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 19:30	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 19:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/03/22 14:12	11/04/22 19:30	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 19:30	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/03/22 14:12	11/04/22 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*11/03/22 14:12*	*11/04/22 19:30*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*11/03/22 14:12*	*11/04/22 19:30*	*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			11/07/22 15:29	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/07/22 11:56	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	50.0		mg/Kg		11/04/22 13:34	11/06/22 03:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 03:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*11/04/22 13:34*	*11/06/22 03:21*	*1*
o-Terphenyl	*118*		*70 - 130*	*11/04/22 13:34*	*11/06/22 03:21*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.2**		4.97		mg/Kg			11/04/22 16:13	1

Client Sample ID: SW02

Lab Sample ID: 890-3369-2
Matrix: Solid
Date Collected: 11/02/22 12:30
Date Received: 11/03/22 08:13
Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		11/03/22 14:12	11/04/22 19:50	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/03/22 14:12	11/04/22 19:50	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/03/22 14:12	11/04/22 19:50	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/03/22 14:12	11/04/22 19:50	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/03/22 14:12	11/04/22 19:50	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/03/22 14:12	11/04/22 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*11/03/22 14:12*	*11/04/22 19:50*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Client Sample ID: SW02

Date Collected: 11/02/22 12:30
Date Received: 11/03/22 08:13
Sample Depth: 0-3'

Lab Sample ID: 890-3369-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/03/22 14:12*	*11/04/22 19:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			11/07/22 15:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**33.7**		50.0	mg/Kg			11/07/22 11:56	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	50.0	mg/Kg		11/04/22 13:34	11/06/22 04:46	1
Diesel Range Organics (Over C10-C28)	**33.7**		50.0	mg/Kg		11/04/22 13:34	11/06/22 04:46	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/04/22 13:34	11/06/22 04:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*11/04/22 13:34*	*11/06/22 04:46*	*1*
o-Terphenyl	*113*		*70 - 130*	*11/04/22 13:34*	*11/06/22 04:46*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51.3**		5.03	mg/Kg			11/04/22 16:20	1

Client Sample ID: SW03

Date Collected: 11/02/22 12:35
Date Received: 11/03/22 08:13
Sample Depth: 0-3'

Lab Sample ID: 890-3369-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/03/22 14:12	11/04/22 20:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/03/22 14:12	11/04/22 20:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/03/22 14:12	11/04/22 20:11	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		11/03/22 14:12	11/04/22 20:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/03/22 14:12	11/04/22 20:11	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		11/03/22 14:12	11/04/22 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/03/22 14:12*	*11/04/22 20:11*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/03/22 14:12*	*11/04/22 20:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			11/07/22 15:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			11/07/22 11:56	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Client Sample ID: SW03

Lab Sample ID: 890-3369-3
Matrix: Solid
Date Collected: 11/02/22 12:35
Date Received: 11/03/22 08:13
Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 03:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 03:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/04/22 13:34	11/06/22 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*11/04/22 13:34*	*11/06/22 03:42*	*1*
o-Terphenyl	*93*		*70 - 130*	*11/04/22 13:34*	*11/06/22 03:42*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32.4**		5.00		mg/Kg			11/04/22 16:27	1

Client Sample ID: SW04

Lab Sample ID: 890-3369-4
Matrix: Solid
Date Collected: 11/02/22 12:40
Date Received: 11/03/22 08:13
Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 20:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 20:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 20:31	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/03/22 14:12	11/04/22 20:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 20:31	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/03/22 14:12	11/04/22 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*11/03/22 14:12*	*11/04/22 20:31*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*11/03/22 14:12*	*11/04/22 20:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/07/22 15:29	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.0**		49.8		mg/Kg			11/07/22 11:56	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	<49.8	U	49.8		mg/Kg		11/04/22 13:34	11/06/22 04:25	1
Diesel Range Organics (Over C10-C28)	**52.0**		49.8		mg/Kg		11/04/22 13:34	11/06/22 04:25	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/04/22 13:34	11/06/22 04:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*11/04/22 13:34*	*11/06/22 04:25*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/04/22 13:34*	*11/06/22 04:25*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Client Sample ID: SW04

Lab Sample ID: 890-3369-4
Matrix: Solid
Date Collected: 11/02/22 12:40
Date Received: 11/03/22 08:13
Sample Depth: 0-3'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.0		4.98		mg/Kg			11/04/22 16:34	1

Client Sample ID: SW05

Lab Sample ID: 890-3369-5
Matrix: Solid
Date Collected: 11/02/22 12:45
Date Received: 11/03/22 08:13
Sample Depth: 0-3'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 20:52	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 20:52	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 20:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/03/22 14:12	11/04/22 20:52	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/03/22 14:12	11/04/22 20:52	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/03/22 14:12	11/04/22 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/03/22 14:12*	*11/04/22 20:52*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/03/22 14:12*	*11/04/22 20:52*	*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			11/07/22 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			11/07/22 11:56	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		11/04/22 13:34	11/06/22 04:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/04/22 13:34	11/06/22 04:04	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/04/22 13:34	11/06/22 04:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*11/04/22 13:34*	*11/06/22 04:04*	*1*
o-Terphenyl	*111*		*70 - 130*	*11/04/22 13:34*	*11/06/22 04:04*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.2		5.00		mg/Kg			11/04/22 16:42	1

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3368-A-1-A MS	Matrix Spike	117	102
890-3368-A-1-B MSD	Matrix Spike Duplicate	119	87
890-3369-1	SW01	117	100
890-3369-2	SW02	113	102
890-3369-3	SW03	116	102
890-3369-4	SW04	107	104
890-3369-5	SW05	116	98
LCS 880-38647/1-A	Lab Control Sample	108	99
LCSD 880-38647/2-A	Lab Control Sample Dup	109	101
MB 880-38647/5-A	Method Blank	89	101

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3368-A-1-F MS	Matrix Spike	99	85
890-3368-A-1-G MSD	Matrix Spike Duplicate	95	81
890-3369-1	SW01	128	118
890-3369-2	SW02	119	113
890-3369-3	SW03	101	93
890-3369-4	SW04	111	106
890-3369-5	SW05	111	111
LCS 880-38741/2-A	Lab Control Sample	96	101
LCSD 880-38741/3-A	Lab Control Sample Dup	95	99
MB 880-38741/1-A	Method Blank	96	106

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38647/5-A
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38647

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/03/22 14:12	11/04/22 13:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/03/22 14:12	11/04/22 13:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*11/03/22 14:12*	*11/04/22 13:21*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/03/22 14:12*	*11/04/22 13:21*	*1*

Lab Sample ID: LCS 880-38647/1-A
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38647

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09434		mg/Kg		94	70 - 130		
Toluene			0.100	0.1036		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1062		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.1880		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09220		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-38647/2-A
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38647

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09800		mg/Kg		98	70 - 130	4	35
Toluene			0.100	0.1092		mg/Kg		109	70 - 130	5	35
Ethylbenzene			0.100	0.1055		mg/Kg		106	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1858		mg/Kg		93	70 - 130	1	35
o-Xylene			0.100	0.09101		mg/Kg		91	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-3368-A-1-A MS
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38647

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U F1 F2	0.0998	0.005779	F1	mg/Kg		6	70 - 130		
Toluene	<0.00202	U F1 F2	0.0998	0.003954	F1	mg/Kg		4	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

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

Lab Sample ID: 890-3368-A-1-A MS
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38647

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U F1 F2	0.0998	0.003555	F1	mg/Kg		4	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.200	0.009125	F1	mg/Kg		5	70 - 130
o-Xylene	<0.00202	U F1 F2	0.0998	0.006871	F1	mg/Kg		7	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3368-A-1-B MSD
Matrix: Solid
Analysis Batch: 38705

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38647

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0990	0.07647	F2	mg/Kg		77	70 - 130	172	35
Toluene	<0.00202	U F1 F2	0.0990	0.09996	F2	mg/Kg		101	70 - 130	185	35
Ethylbenzene	<0.00202	U F1 F2	0.0990	0.09454	F2	mg/Kg		95	70 - 130	186	35
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.198	0.1686	F2	mg/Kg		85	70 - 130	179	35
o-Xylene	<0.00202	U F1 F2	0.0990	0.08234	F2	mg/Kg		83	70 - 130	169	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

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

Lab Sample ID: MB 880-38741/1-A
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38741

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/04/22 13:34	11/05/22 20:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/04/22 13:34	11/05/22 20:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/04/22 13:34	11/05/22 20:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*11/04/22 13:34*	*11/05/22 20:56*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/04/22 13:34*	*11/05/22 20:56*	*1*

Lab Sample ID: LCS 880-38741/2-A
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38741

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	824.1		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1033		mg/Kg		103	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-38741/2-A
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38741

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: LCSD 880-38741/3-A
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38741

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	818.0		mg/Kg		82	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	986.9		mg/Kg		99	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 890-3368-A-1-F MS
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38741

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	997	788.7		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	997	955.5		mg/Kg		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 890-3368-A-1-G MSD
Matrix: Solid
Analysis Batch: 38768

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38741

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	787.1		mg/Kg		79	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	900.2		mg/Kg		87	70 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	81		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38711/1-A
Matrix: Solid
Analysis Batch: 38737

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/04/22 13:05	1

Lab Sample ID: LCS 880-38711/2-A
Matrix: Solid
Analysis Batch: 38737

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	251.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-38711/3-A
Matrix: Solid
Analysis Batch: 38737

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	253.4		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3366-A-12-C MS
Matrix: Solid
Analysis Batch: 38737

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	30.8		251	287.5		mg/Kg		102	90 - 110		

Lab Sample ID: 890-3366-A-12-D MSD
Matrix: Solid
Analysis Batch: 38737

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	30.8		251	285.9		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

GC VOA

Prep Batch: 38647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-1	SW01	Total/NA	Solid	5035	
890-3369-2	SW02	Total/NA	Solid	5035	
890-3369-3	SW03	Total/NA	Solid	5035	
890-3369-4	SW04	Total/NA	Solid	5035	
890-3369-5	SW05	Total/NA	Solid	5035	
MB 880-38647/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38647/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38647/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3368-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3368-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-1	SW01	Total/NA	Solid	8021B	38647
890-3369-2	SW02	Total/NA	Solid	8021B	38647
890-3369-3	SW03	Total/NA	Solid	8021B	38647
890-3369-4	SW04	Total/NA	Solid	8021B	38647
890-3369-5	SW05	Total/NA	Solid	8021B	38647
MB 880-38647/5-A	Method Blank	Total/NA	Solid	8021B	38647
LCS 880-38647/1-A	Lab Control Sample	Total/NA	Solid	8021B	38647
LCSD 880-38647/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38647
890-3368-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	38647
890-3368-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38647

Analysis Batch: 38898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-1	SW01	Total/NA	Solid	Total BTEX	
890-3369-2	SW02	Total/NA	Solid	Total BTEX	
890-3369-3	SW03	Total/NA	Solid	Total BTEX	
890-3369-4	SW04	Total/NA	Solid	Total BTEX	
890-3369-5	SW05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 38741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-1	SW01	Total/NA	Solid	8015NM Prep	
890-3369-2	SW02	Total/NA	Solid	8015NM Prep	
890-3369-3	SW03	Total/NA	Solid	8015NM Prep	
890-3369-4	SW04	Total/NA	Solid	8015NM Prep	
890-3369-5	SW05	Total/NA	Solid	8015NM Prep	
MB 880-38741/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38741/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-38741/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3368-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3368-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-1	SW01	Total/NA	Solid	8015B NM	38741
890-3369-2	SW02	Total/NA	Solid	8015B NM	38741

QC Association Summary

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 38768 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-3	SW03	Total/NA	Solid	8015B NM	38741
890-3369-4	SW04	Total/NA	Solid	8015B NM	38741
890-3369-5	SW05	Total/NA	Solid	8015B NM	38741
MB 880-38741/1-A	Method Blank	Total/NA	Solid	8015B NM	38741
LCS 880-38741/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38741
LCSD 880-38741/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38741
890-3368-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	38741
890-3368-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38741

Analysis Batch: 38876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-1	SW01	Total/NA	Solid	8015 NM	
890-3369-2	SW02	Total/NA	Solid	8015 NM	
890-3369-3	SW03	Total/NA	Solid	8015 NM	
890-3369-4	SW04	Total/NA	Solid	8015 NM	
890-3369-5	SW05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-1	SW01	Soluble	Solid	DI Leach	
890-3369-2	SW02	Soluble	Solid	DI Leach	
890-3369-3	SW03	Soluble	Solid	DI Leach	
890-3369-4	SW04	Soluble	Solid	DI Leach	
890-3369-5	SW05	Soluble	Solid	DI Leach	
MB 880-38711/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38711/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38711/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3366-A-12-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3366-A-12-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 38737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3369-1	SW01	Soluble	Solid	300.0	38711
890-3369-2	SW02	Soluble	Solid	300.0	38711
890-3369-3	SW03	Soluble	Solid	300.0	38711
890-3369-4	SW04	Soluble	Solid	300.0	38711
890-3369-5	SW05	Soluble	Solid	300.0	38711
MB 880-38711/1-A	Method Blank	Soluble	Solid	300.0	38711
LCS 880-38711/2-A	Lab Control Sample	Soluble	Solid	300.0	38711
LCSD 880-38711/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38711
890-3366-A-12-C MS	Matrix Spike	Soluble	Solid	300.0	38711
890-3366-A-12-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	38711

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Client Sample ID: SW01

Date Collected: 11/02/22 12:25
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3369-1
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			5.05 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 19:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38898	11/07/22 15:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38876	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 03:21	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	38711	11/04/22 10:43	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38737	11/04/22 16:13	CH	EET MID

Client Sample ID: SW02

Date Collected: 11/02/22 12:30
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3369-2
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			4.96 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 19:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38898	11/07/22 15:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38876	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 04:46	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	38711	11/04/22 10:43	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38737	11/04/22 16:20	CH	EET MID

Client Sample ID: SW03

Date Collected: 11/02/22 12:35
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3369-3
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	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 20:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38898	11/07/22 15:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38876	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 03:42	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38711	11/04/22 10:43	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38737	11/04/22 16:27	CH	EET MID

Client Sample ID: SW04

Date Collected: 11/02/22 12:40
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3369-4
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	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 20:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38898	11/07/22 15:29	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Client Sample ID: SW04

Date Collected: 11/02/22 12:40
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3369-4

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			38876	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 04:25	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	38711	11/04/22 10:43	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38737	11/04/22 16:34	CH	EET MID

Client Sample ID: SW05

Date Collected: 11/02/22 12:45
Date Received: 11/03/22 08:13

Lab Sample ID: 890-3369-5

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			5.05 g	5 mL	38647	11/03/22 14:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38705	11/04/22 20:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38898	11/07/22 15:29	AJ	EET MID
Total/NA	Analysis	8015 NM		1			38876	11/07/22 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38741	11/04/22 13:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38768	11/06/22 04:04	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	38711	11/04/22 10:43	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38737	11/04/22 16:42	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: Leamex 18

Job ID: 890-3369-1
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: Leamex 18

Job ID: 890-3369-1
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: Leamex 18

Job ID: 890-3369-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3369-1	SW01	Solid	11/02/22 12:25	11/03/22 08:13	0-3'
890-3369-2	SW02	Solid	11/02/22 12:30	11/03/22 08:13	0-3'
890-3369-3	SW03	Solid	11/02/22 12:35	11/03/22 08:13	0-3'
890-3369-4	SW04	Solid	11/02/22 12:40	11/03/22 08:13	0-3'
890-3369-5	SW05	Solid	11/02/22 12:45	11/03/22 08:13	0-3'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

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Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	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:	Leamex 18	Turn Around	
Project Number:	03D2057028	☑ Routine ☒ Rush	
Project Location:	Lea County, NM	Due Date:	48 HR
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:	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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SW01	S	11.2.22	1225	0-3'	C	1		X	X	X
SW02	S	11.2.22	1230	0-3'	C	1		X	X	X
SW03	S	11.2.22	1235	0-3'	C	1		X	X	X
SW04	S	11.2.22	1240	0-3'	C	1		X	X	X
SW05	S	11.2.22	1245	0-3'	C	1		X	X	X

ANALYSIS REQUEST

890-3369 Chain of Custody

Preservative Codes

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

Sample Comments

Incident Number

Cost Code- GA130323
AFE 000000000471

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 Luft	11/3/22 813	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3369-1
SDG Number: Lea County NM

Login Number: 3369
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.	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: 890-3369-1
SDG Number: Lea County NM

Login Number: 3369
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 11/04/22 10:22 AM

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

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Enviro, OCD, EMNRD
To: Kalei Jennings
Cc: Nobui, Jennifer, EMNRD; Bratcher, Michael, EMNRD
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 11/28/2022)
Date: Wednesday, November 23, 2022 2:34:36 PM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.png

[**EXTERNAL EMAIL**]

Please be aware that notification requirements are **two business days**, per rule. Please proceed on your schedule. Also, please include this, and all correspondence, in the closure report to insure inclusion in the project file.

Many thanks and happy holidays!

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, November 23, 2022 1:23 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 11/28/2022)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

On behalf of Maverick Natural Resources, LLC we respectfully submit notification of sampling to be conducted at the below location the week of 11/28/2022.

Leamex 8 / Incident Number NAPP2200641724
Leamex 018 / Incident Number NAPP2229947721

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

From: Nobui, Jennifer, EMNRD
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD
Subject: FW: [EXTERNAL] Maverick- Sampling Notification (Week of 10/31/2022)
Date: Wednesday, October 26, 2022 4:04:54 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.jpg

[**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: Wednesday, October 26, 2022 3:58 PM
To: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Maverick- Sampling Notification (Week of 10/31/2022)

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@state.nm.us
http:// **www.emnrd.nm.gov**

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, October 26, 2022 3:37 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 10/31/2022)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

On behalf of Maverick Natural Resources, LLC we respectfully submit notification of sampling to be conducted at the below locations the week of 10/31/2022.

Leamex 8 / Incident Number NAPP2200641724
MCA 145 / Incident Number NAPP2229469315
Leamex 018 / Incident Number NAPP2229947721

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 167178

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 167178
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	1/11/2023