



July 7, 2023

New Mexico Oil Conservation Division

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

**Re: Closure Request
Leamex 018 Flowline
Incident Number NAPP2234158858
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, excavation, and soil sampling activities performed at the Leamex 018 Flowline (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a flowline release of crude oil and produced water into the surrounding pasture. Based on field observations, excavation activities, and laboratory analytical results from the soil sampling events, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting no further action for Incident Number NAPP2234158858.

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 (32.830488°, -103.663141°) and is associated with oil and gas exploration and production operations on State Land managed by the New Mexico State Land office (NMSLO).

On November 30, 2022, a flowline failure resulted in the release of approximately 3.16 barrels (bbls) of crude oil and 17.7 (bbls) of produced water into the surrounding pasture. No released fluids were recovered. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on December 6, 2022. The release was assigned Incident Number NAPP2234158858.

The NMSLO was notified of excavation and remediation activities required in the pasture on a Right of Entry Request for Remediation form, submitted to the NMSLO on December 13, 2022. The request included a copy of the Form C-141, a topographic location map, and a satellite image of the location. The Right of Entry (ROE) Permit (RE-6360) was fully executed by the NMSLO and received by Maverick on January 3, 2023. No additional cultural resource surveys were completed in connection with this release. A copy of the ROE Request for Remediation form and fully executed ROE Permit, are included in Appendix A.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC).

Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. 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 regional groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) 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 a total 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. The referenced well records are included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is a freshwater pond, located approximately 268 feet northeast of the Site. The Site is less than 300 feet from a wetland. 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 greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 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

EXCAVATION AND LABORATORY ANALYTICAL RESULTS

Between January 18, 2023, and May 8, 2023, Ensolum personnel were at the Site to oversee excavation activities. Impacted soil was excavated as indicated by visible staining and field screening results. To direct excavation activities, soil was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips, respectively. Excavation activities were performed using a backhoe and transport vehicles.

Following removal of impacted soil, 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. Confirmation soil samples CS-1 through CS58 were collected from the floor of the excavation at depths ranging from 1-foot to 3 feet bgs. Confirmation soil samples SW01 through SW08 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 3 feet bgs. Additionally, assessment samples SS01 through SS04 were collected around the excavation extent from a depth of 0.25 feet bgs, to confirm the lateral extent of the surface release. The excavation extent and soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 2. Photographic documentation was completed during the excavation activities. 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 under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following contaminants of concern (COC), 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 assessment samples SS01 through SS04 indicated all COC concentrations were compliant with the Site Closure Criteria, and successfully defined the lateral extent of the release. Laboratory analytical results for excavation floor samples CS01 through CS13, CS16 through CS18, CS20, CS22 through CS24, CS27, CS30 through CS34, CS38, CS41, CS42, CS44, CS46, CS50, and CS54 through CS58, and excavation sidewall samples SW06 through SW08 indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for excavation floor samples CS14, CS15, CS19, CS21, CS25, CS26, CS28, CS29, CS35 through CS37, CS39, CS40, CS43, CS45, CS47 through CS49, CS51 through CS53, and excavation sidewall samples SW01 through SW05 indicated that TPH concentrations exceeded Site Closure Criteria. Additional soil was excavated from these areas and subsequent floor samples CS14A, CS15A, CS19A, CS21A, CS25A, CS26A, CS28A, CS29A, CS35A through CS37A, CS39A, CS40A, CS43A, CS45A, CS47A through CS49A, CS51A through CS53A and subsequent sidewall samples SW02A, SW04A, SW05A, and SW06 through SW08 were compliant with the Site Closure Criteria.

Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that all COC concentrations were compliant with Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

The excavation measured approximately 11,650 square feet. A total of approximately 1,321 cubic yards of impacted soil was removed, transported, and properly disposed of at R360 Environmental Solutions in Hobbs, New Mexico.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the November 30, 2022, release of crude oil and produced water. Laboratory analytical results for the final excavation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria. Based on the laboratory analytical results, no further remediation was required. Maverick will backfill the excavation with material purchased locally, recontour the Site to match pre-existing site conditions and re-seed the disturbed area with the appropriate seed mixture during the next growing season.

Maverick believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, Maverick respectfully requests closure for Incident Number NAPP2234158858. NMOCD notifications are included in Appendix E and the Final C-141 is included in Appendix F. A Reclamation Plan for the disturbed pasture area is included in Appendix G for NMSLO review.

Maverick Permian, LLC
Closure Request
Leamex 018 Flowline

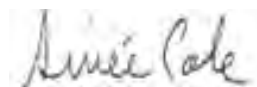
Page 4

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

Sincerely,
Ensolum, LLC



Kalei Jennings
Senior Scientist



Aimee Cole
Senior Managing Scientist

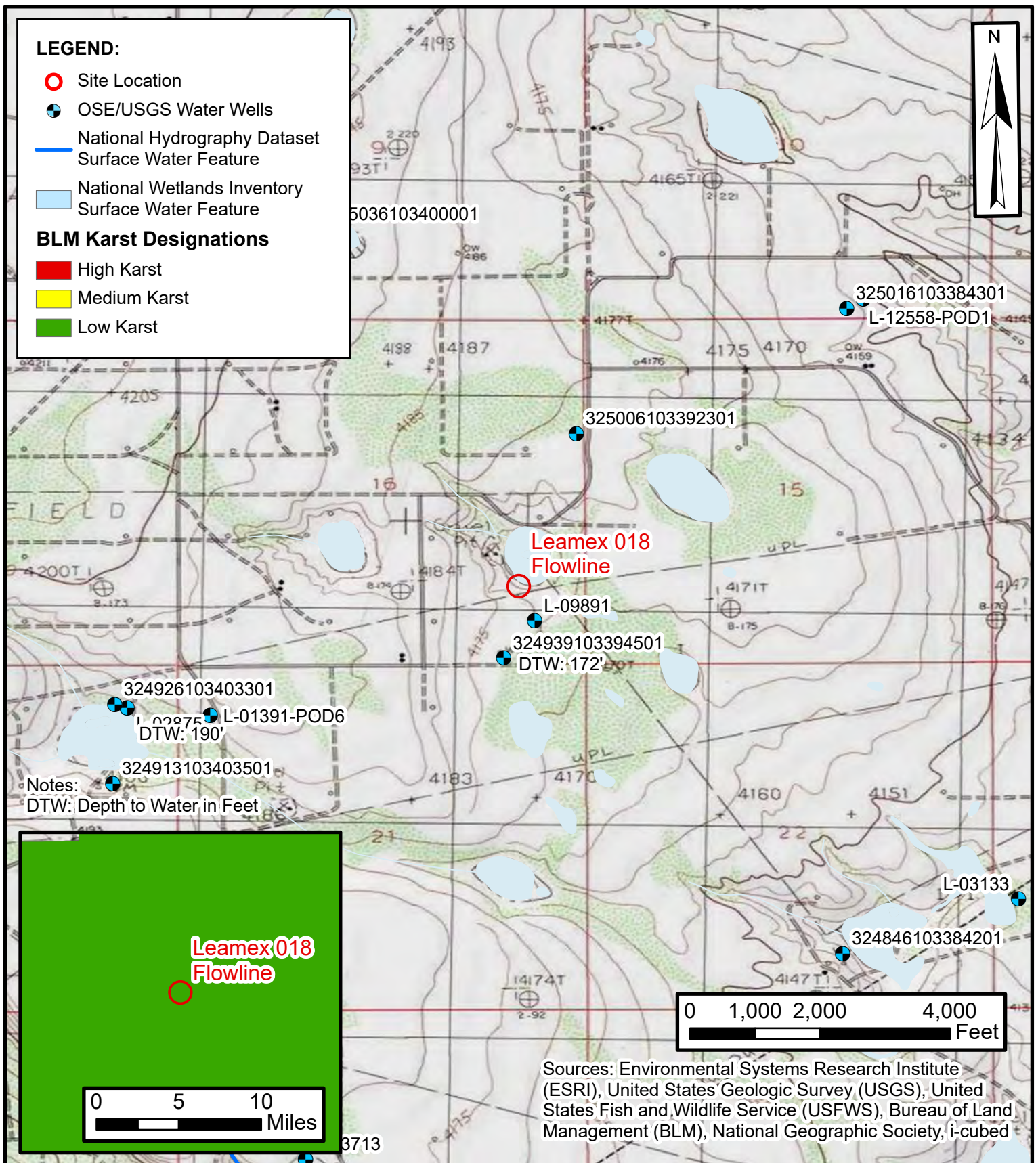
cc: Bryce Wagoner, Maverick Permian, LLC
New Mexico State Land Office

Appendices:

Figure 1	Site Receptor Map
Figure 2	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	ROE Request for Remediation Form and ROE Permit
Appendix B	Referenced Well Records
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Sampling Notifications
Appendix F	Final C-141
Appendix G	NMSLO Reclamation Plan



FIGURES



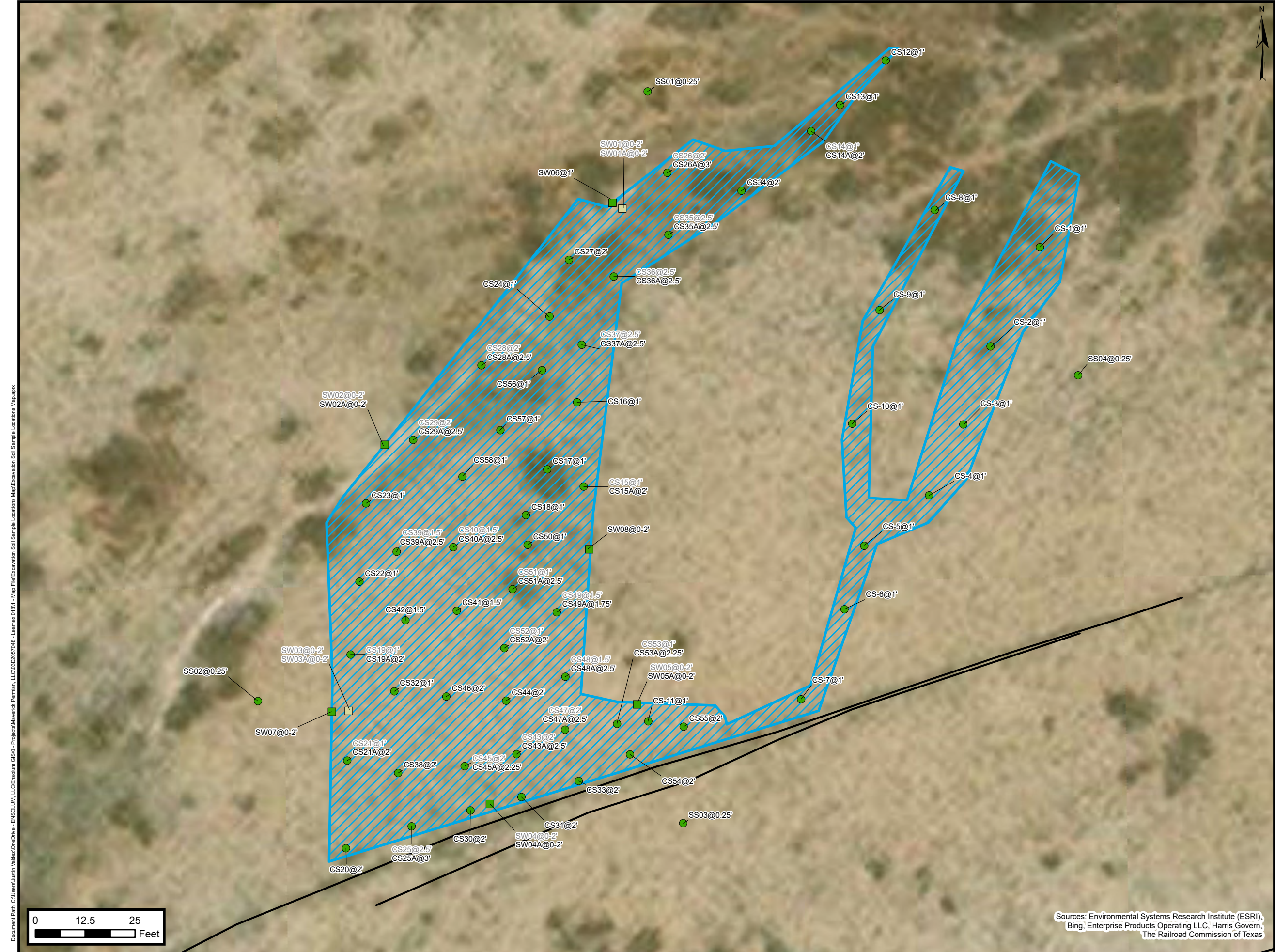
SITE LOCATION MAP

Maverick Permian, LLC
Leamex 018 Flowline
Incident Number: NAPP2234158858
Unit P, Sec 16, T17S, R33E
Lea County, New Mexico

FIGURE

1

ENSOLUM
Environmental, Engineering and
Hydrogeologic Consultants



Legend

- Excavation Sample in Compliance with Closure Criteria
- Excavation Sidewall Sample in Compliance with Closure Criteria
- Removed Excavation Sidewall Sample
- Surface Flowline
- Excavation Extent

Excavation Soil Sample Locations

Leamex 018
Maverick Permian, LLC
Incident Number: NAPP2234158858
Unit P, Sec 16, T17S, R33E
Lea County, New Mexico

FIGURE 2



Sources: Environmental Systems Research Institute (ESRI), Bing, Enterprise Products Operating LLC, Harris Govern, The Railroad Commission of Texas



TABLES



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Leamex 018 Flowline Maverick Permian, LLC Lea County, New Mexico										
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Assessment Samples										
SS01	01/18/2023	0.25	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	48.5
SS02	01/18/2022	0.25	0.0173	0.0900	<49.9	<49.9	<49.9	<49.9	<49.9	<5.00
SS03	01/18/2023	0.25	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	5.10
SS04	01/18/2023	0.25	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	<5.01
Excavation Floor Samples										
CS-1	01/18/2023	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98
CS-2	01/18/2023	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	53.0
CS-3	01/18/2023	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	52.5
CS-4	01/18/2023	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	9.30
CS-5	01/18/2023	1	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	62.6
CS-6	01/18/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	60.7
CS-7	01/18/2023	1	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	52.9
CS-8	01/18/2023	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	13.6
CS-9	01/18/2023	1	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	11.2
CS-10	01/18/2023	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	87.7
CS-11	01/18/2023	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8.41
CS12	01/19/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	5.05
CS13	01/19/2023	1	<0.00198	<0.00396	<49.9	72.3	<49.9	72.3	72.3	25.0
CS14	01/19/2023	1	<0.00202	<0.00403	<49.9	355	53.0	355	408	92.6
CS14A	02/23/2023	2	<0.000386	<0.00101	<15.0	16.3	<15.0	16.3	16.3	518
CS15	01/19/2023	1	<0.00199	<0.00398	<49.9	214	<49.9	214	214	16.1
CS15A	02/23/2023	2	<0.000381	<0.00100	29.6	19.4	<15.0	49.0	49.0	53.4
CS16	01/19/2023	1	<0.00198	<0.00397	<50.0	75.3	<50.0	75.3	75.3	8.04
CS17	01/19/2023	1	<0.00200	<0.00400	<49.9	84.5	<49.9	84.5	84.5	29.2

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Leamex 018 Flowline Maverick Permian, LLC Lea County, New Mexico										
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
CS18	01/19/2023	1	<0.00201	<0.00402	<49.9	53.5	<49.9	53.5	53.5	49.4
CS19	01/19/2023	1	<0.00202	<0.00403	<49.9	156	<49.9	156	156	<4.99
CS19A	02/24/2023	2	<0.000383	<0.00101	22.0	<15.0	<15.0	22.0	22.0	43.7
CS20	01/19/2023	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	40.6
CS21	01/19/2023	1	<0.00201	<0.00402	<50.0	462	209	462	671	<4.96
CS21A	02/24/2023	2	<0.000383	0.00136	41.0	18.6	<15.0	59.6	59.6	50.8
CS22	01/19/2023	1	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	6.30
CS23	01/19/2023	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	9.90
CS24	01/19/2023	1	<0.00201	<0.00402	<50.0	95.8	<50.0	95.8	95.8	10.9
CS25	01/19/2023	2.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	40.5
CS25A	02/24/2023	3	<0.000386	<0.00101	23.6	15.9	<15.0	39.5	39.5	65.0
CS26	01/19/2023	2	<0.00200	<0.00399	<49.9	189	<49.9	189	189	<5.00
CS26A	02/23/2023	3	<0.000387	<0.00102	33.7	<15.0	<15.0	33.7	33.7	38.2
CS27	01/19/2023	2	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	56.7
CS28	01/19/2023	2	<0.00198	<0.00397	<49.9	148	<49.9	148	148	68.7
CS28A	02/24/2023	2.5	<0.000381	<0.00100	28.7	27.4	19.9	56.1	76.0	44.8
CS29	01/19/2023	2	<0.00202	<0.00403	<49.9	151	<49.9	151	151	13.6
CS29A	02/24/2023	2.5	<0.000383	<0.00100	37.4	21.7	17.7	59.1	76.8	34.7
CS30	01/19/2023	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	81.8
CS31	01/19/2023	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	57.1
CS32	01/19/2023	2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	9.53
CS33	01/20/2023	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	18.7
CS34	01/20/2023	2	<0.00201	<0.00402	<49.9	93.0	<49.9	93.0	93.0	54.9

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Leamex 018 Flowline Maverick Permian, LLC Lea County, New Mexico										
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
CS35	01/20/2023	2	<0.00202	<0.00404	<49.9	314	52.3	314	366	162
CS35A	02/23/2023	2.5	<0.000383	<0.00101	35.8	22.3	<15.0	58.1	58.1	110
CS36	01/20/2023	2	<0.00200	<0.00401	<49.9	503	75.1	503	578	160
CS36A	02/23/2023	2.5	<0.000383	<0.00100	27.6	23.7	<15.0	51.3	51.3	68.1
CS37	01/20/2023	2	<0.00199	<0.00398	<50.0	214	<50.0	214	214	60.3
CS37A	02/24/2023	2.5	<0.000383	<0.00101	24.9	23.3	<15.0	48.2	48.2	65.0
CS38	01/20/2023	2	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	7.17
CS39	01/20/2023	1.5	<0.00198	<0.00397	<49.9	294	<49.9	294	294	20.6
CS39A	02/24/2023	2.5	<0.000384	<0.00101	43.2	16.1	15.4	59.3	74.7	75.4
CS40	01/20/2023	1.5	<0.00202	<0.00403	<49.9	213	<49.9	213	213	27.1
CS40A	02/24/2023	2.5	<0.000387	<0.00102	21.7	16.7	<15.0	38.4	38.4	79.3
CS41	01/20/2023	1.5	<0.00200	<0.00400	<49.9	58.8	<49.9	58.8	58.8	41.0
CS42	01/20/2023	1.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	31.3
CS43	01/20/2023	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	15.9
CS43A	02/24/2023	2.5	<0.000383	<0.00100	30.6	<14.9	<14.9	30.6	30.6	123
CS44	01/20/2023	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	8.18
CS45	01/20/2023	2	<0.00199	<0.00398	<50.0	126	<50.0	126	126	10.7
CS45A	03/16/2023	2.25	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	56.5
CS46	01/20/2023	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	7.94
CS47	01/20/2023	2	<0.00199	<0.00398	<49.9	387	53.3	387	440	12.8
CS47A	02/24/2023	2.5	<0.000387	<0.00102	29.8	20.7	<14.9	50.5	50.5	55.2
CS48	01/20/2023	1.5	<0.00199	0.00499	<49.9	427	54.3	427	481	20.2
CS48A	02/24/2023	2.5	<0.000384	<0.00101	28.3	<15.0	<15.0	28.3	28.3	56.4

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

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
CS49	01/20/2023	1.5	<0.00200	<0.00399	<49.9	325	<49.9	325	325	22.6
CS49A	03/16/2023	1.75	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	42.5
CS50	01/20/2023	1	<0.00199	<0.00398	<49.9	53.2	<49.9	53.2	53.2	116
CS51	01/20/2023	1	<0.00200	<0.00401	<50.0	132	<50.0	132	132	21.8
CS51A	02/24/2023	2.5	<0.000383	<0.00101	24.7	15.0	<15.0	39.7	39.7	135
CS52	01/20/2023	1.5	<0.00198	<0.00396	<50.0	138	<50.0	138	138	21.1
CS52A	02/24/2023	2	<0.000386	<0.00101	30.2	17.1	<15.0	47.3	47.3	99.4
CS53	02/23/2023	2	<0.000384	0.00247	15.6	120	19.2	135.6	155	50.6
CS53A	03/16/2023	2.25	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	31.2
CS54	02/23/2023	2	<0.000383	<0.00101	32.5	37.7	<15.0	70.2	70.2	56.4
CS55	02/23/2023	2	<0.000383	<0.00100	29.4	46.7	<15.0	76.1	76.1	65.6
CS56	05/25/2023	1	<0.050	<0.300	<10.0	14.2	<10.0	14.2	14.2	32.0
CS57	05/25/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
CS58	05/25/2023	1	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	272

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Leamex 018 Flowline Maverick Permian, LLC Lea County, New Mexico										
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NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Excavation Sidewall Samples										
SW01	01/20/2023	0-2	<0.00199	<0.00398	<49.9	318	82.2	318	400	21.8
SW01A	02/23/2023	0-2	<0.000388	0.00117	<15.0	104	21.1	104	125	58.3
SW06	03/16/2023	0 - 2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	67.3
SW02	01/20/2023	0-2	<0.00200	<0.00399	<50.0	313	69.4	313	382	21.5
SW02A	02/23/2023	0-2	<0.000381	0.00626	23.7	27.9	25.0	51.6	76.6	45.7
SW03	01/20/2023	0-2	<0.00199	<0.00398	<50.0	243	<50.0	243	243	32.5
SW03A	02/24/2023	0-2	<0.000383	<0.00100	26.1	110	29.6	136	166	42.7
SW07	03/16/2023	0 - 2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	41.4
SW04	01/20/2023	0-2	<0.00200	<0.00401	<49.9	702	147	702	849	8.46
SW04A	02/24/2023	0-2	<0.000383	<0.00100	30.1	60.8	<15.0	90.9	90.9	96.8
SW05	01/20/2023	0-2	<0.00202	0.0427	<49.9	973	215	973	1,190	48.9
SW05A	01/27/2023	0-2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	205
SW08	5/25/2023	0 - 2	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMAC: New Mexico Administrative Code

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.**Grey** text represents samples that have been excavated



APPENDIX A

ROE Request for Remediation Form and ROE Permit



Stephanie Garcia Richard
Commissioner of Public Lands

RIGHT OF ENTRY REQUEST FOR REMEDIATION

Company Name _____
 Address _____
 City, State, Zip _____
 Contact Person: _____
 Telephone #: _____
 Email: _____

Purpose of request: _____

Section _____ Township _____ Range _____ Unit Letter _____

Qtr/Qtr _____ County _____

GPS Location (decimal degrees): Latitude _____ W Longitude _____ N

If this is a remediation for a spill please attach a copy of the OCD C-141 form.

Is the completed C-141 attached? Yes ☐ No ☐

Square footage of spill impacted surface: _____

Estimated square footage of total disturbance: _____

Reclamation Plan (*attach addl. sheet if necessary*) _____

Driving directions from nearest state highway or road (*attach a map of the location*):

Lease number associated with the ROE request: _____

Well Name and/or Operator (if applicable): _____

Time expected to complete remediation: _____

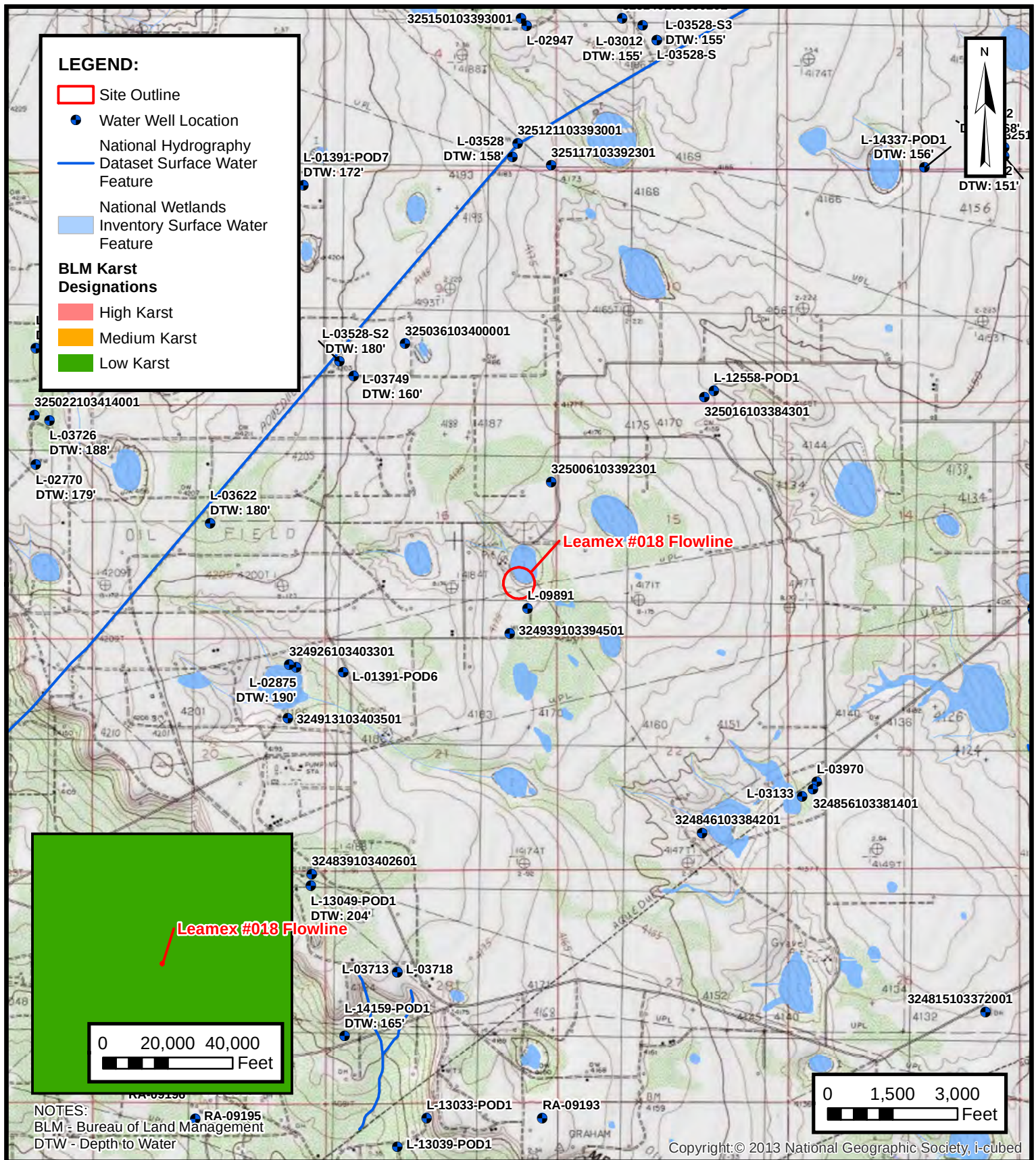
Personnel present on State Land _____

Equipment & materials present on State Land _____

\$50.00 application fee and \$500.00 permit amount (based on 180 days) renewable for up to 3 yrs.

Payable to: The Commissioner of Public Lands
 P. O. Box 1148
 Santa Fe, NM 87504-1148

** When you provide a check as payment, you authorize the State of New Mexico to either use information from your check to make a one-time electronic fund transfer from your account or to process the payment as a check transaction.*

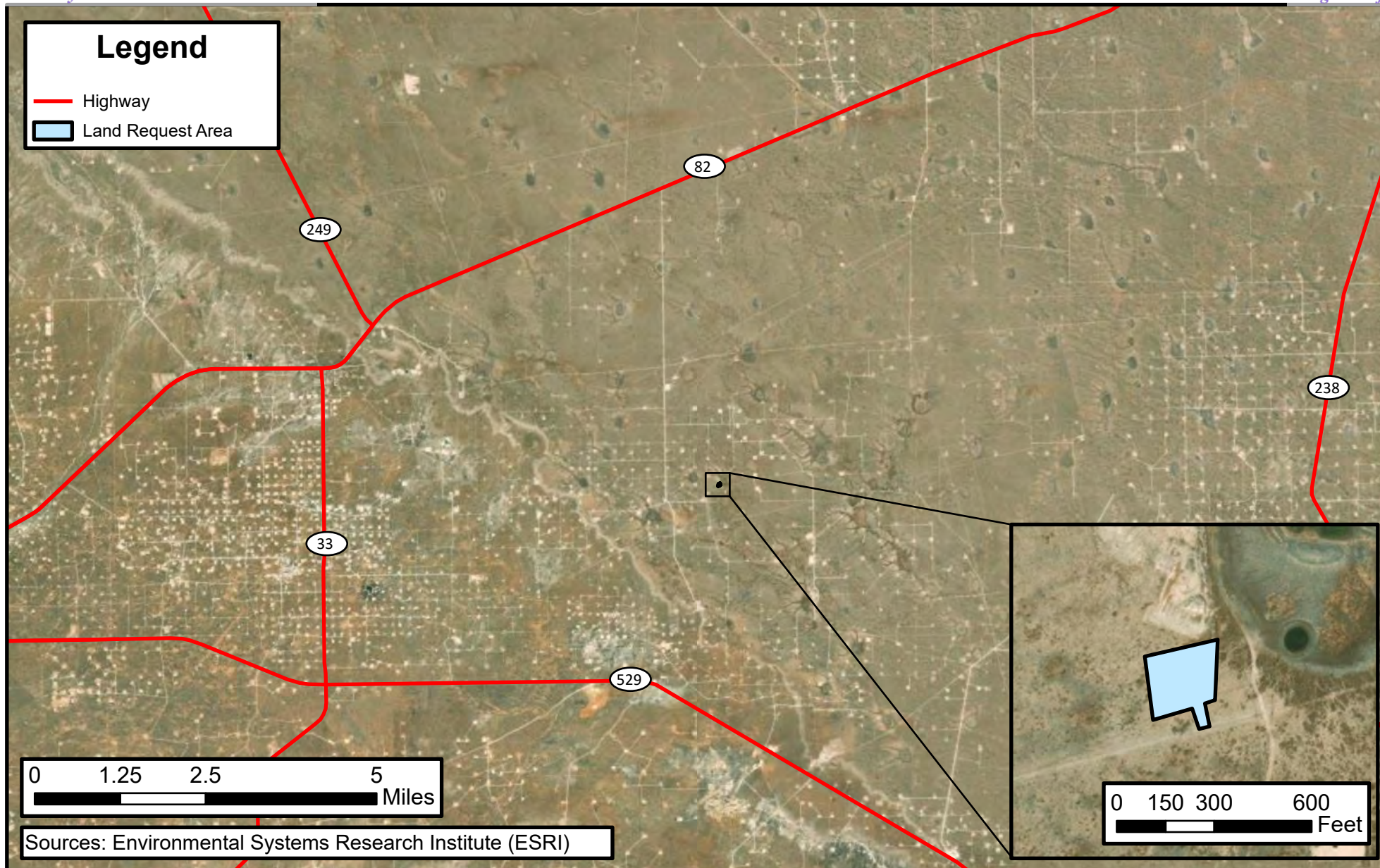


SITE MAP

Leamex 018 Flowline
Maverick Natural Resources, LLC

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

FIGURE
1



Right of Entry Site Map

Leamex 018 Flowline
Maverick Natural Resources, LLC

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

FIGURE
2



Stephanie Garcia Richard
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

January 3, 2023

Maverick Natural Resources, LLC
1410 NW County Rd
Hobs, NM 88240

Attn: Bryce Wagoner

Re: Right-of-Entry Permit No.: **RE-6380/Lemex #018 RECLAMATION/REMEDICATION PERMIT**

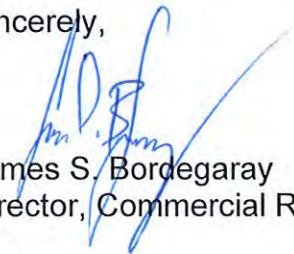
Dear Applicant:

Enclosed is the completed captioned Right-of-Entry permit. If any corrections are necessary, please let us know and we will retype or amend this permit as necessary.

The New Mexico State Land Office requires you to notify any surface lessees that will be impacted by your project prior to construction.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact Amy Velazquez of my staff at (505) 827-5789.

Sincerely,


James S. Bordegaray
Director, Commercial Resources Division

JSB/alv



NEW MEXICO STATE LAND OFFICE
Commissioner of Public Lands
Stephanie Garcia Richard
New Mexico State Land Office Building
P.O. Box 1148, Santa Fe, NM 87504-1148

RIGHT OF ENTRY PERMIT
CONTRACT NO. RE – 6380

This Agreement is made and entered into between the COMMISSIONER OF PUBLIC LANDS (the "Commissioner") and

Maverick Natural Resources, LLC
1410 NW County Rd
Hobbs, NM 88240

("Permittee"). The parties agree as follows:

1. RIGHT OF ENTRY ("ROE")

The Commissioner grants to Permittee, and its authorized representatives, employees, and contractors, permission to use the state trust lands identified below (the "Premises"), and ingress and egress to the Premises, for the sole purposes of (1) surveying/conducting an environmental investigation due to a crude oil and produced water release on or adjacent to the site of the **Leamex #018 (Incident # nAPP2234158858)** and (2) conducting surface reclamation activities, including removal of equipment and debris, and any required remediation per 19.15.29.12 NMAC.

The Premises are situated in the following location in **Lea County**, New Mexico::

Section	Township	Range	Subdivision	County	Longitude/Latitude
16	17S	33E	SE4SE4	Lea	32.830488,-103.663141

2. TERM AND TERMINATION

Right of entry is granted for a term of **180 days**, commencing on the execution date of this document by the Commissioner of Public Lands.

3. FEES

\$ 50.00 Application Fee
 \$ 500.00 Permit Fee
 \$ 550.00 Total Fee

RE-6380

4. CONDITIONS OF USE

- A. The issuance of this ROE does not guarantee that any subsequent lease, permit, or any other instrument will be issued to Permittee for the Premises.
- B. No blading or widening of any roads that provide access to the Premises is permitted under this ROE.
- C. No sale of any material extracted from the Premises is allowed under this ROE.
- D. Permittee shall observe all applicable federal, state, and local laws and regulations.
- E. Permittee shall take all reasonable precautions to prevent and suppress forest, brush, and grass fires and prevent pollution of waters on or in the vicinity of the Premises.
- F. Permittee shall not block or disrupt roads or trails commonly in use.
- G. This ROE is subject to any and all easements and rights-of-way previously granted and now in force and effect.
- H. Permittee shall be responsible for repair and restitution for damage to any Premises or improvements as a result of activities related to the ROE.
- I. Prior to entering the Premises, Permittee must identify and contact any existing surface lessees. The grant of this ROE does not allow access across private lands.
- J. Permittee may utilize this ROE upon its execution for inspection of the Premises and to conduct any necessary tests or inspections. Permittee may not conduct remediation or reclamation work until it has submitted a written plan for such work, and received State Land Office approval.
- K. Personnel present on Premises: **Maverick personnel and contractors.**
- L. Equipment and materials present on Premises: **Vehicles, heavy equipment, and associated equipment.**

5. SITE CONDITIONS

- A. No surface disturbance, other than soil tests, except as described in a reclamation plan submitted to and approved by the State Land Office.
- B. Access to the Premises shall be over existing roads.
- C. The natural environmental conditions that exist contemporaneously with this grant of ROE shall be preserved and protected. Permittee must follow all applicable environmental and cultural resource protection laws and regulations.

6. INDEMNITY

Permittee shall save, hold harmless, indemnify, and defend the State of New Mexico, the Commissioner and Commissioner's employees, agents and contractors, in both their official and individual capacities, from any and all liability, claims, losses, damages, or expenses of any character or nature whatsoever, including but not limited to attorney's fees, court costs, loss of land value or use, third party claims, penalties, or removal, remedial or restoration costs arising out of, or alleged to arise out of Permittee's operations or presence on the Premises (or operations or presence of his representatives, employees, or contractors).

7. SURVIVAL OF TERMS

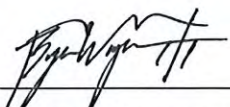
Permittee's obligations regarding indemnity, site conditions, and compliance with applicable standards and laws, shall survive the termination, cancellation or relinquishment of this Agreement, and any cause of action of the Commissioner to enforce any right, liability, claim, loss, damage or expense under those paragraphs shall not be deemed to accrue until the Commissioner's actual discovery of said right, liability, claim, loss, damage or expense.

8. NOTIFICATION

Permittee must notify the State Land Office immediately in the event Permittee or his representatives, employees, or contractors observe any spill, fire, or other emergency on the Premises, or if Permittee or his representatives, employees, or contractors experience any serious injury while on the Premises.

RE-6380

WITNESS the hands of PERMITTEE and COMMISSIONER on the day(s) and year entered below.



PERMITTEE SIGNATURE

DATE: 12/28/22

Bryce Wagoner

HSE Specialist II

PERMITTEE NAME AND TITLE (PRINT)

SEAL:

BY: 
Stephanie Garcia Richard
Commissioner of Public Lands

DATE: 01/03/2023





APPENDIX B

Referenced Well Records



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L 02875		2	2	20	17S	33E	623662	3632717*	

Driller License: 46 **Driller Company:** ABBOTT BROTHERS COMPANY

Driller Name: MURRELL ABBOTT

Drill Start Date: 05/18/1955 **Drill Finish Date:** 05/20/1955 **Plug Date:**

Log File Date: 05/26/1955 **PCW Rev Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 7.00 **Depth Well:** 250 feet **Depth Water:** 190 feet

Water Bearing Stratifications:	Top	Bottom	Description
	190	235	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	190	250

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/30/23 10:19 AM

POINT OF DIVERSION SUMMARY



National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

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 of measurement
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
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined

Section	Code	Description
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

- [Questions about sites/data?](#)
- [Feedback on this web site](#)
- [Automated retrievals](#)
- [Help](#)
- [Data Tips](#)
- [Explanation of terms](#)
- [Subscribe for system changes](#)
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[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)
[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)
Title: Groundwater for USA: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)
Page Last Modified: 2023-05-30 11:44:43 EDT
0.28 0.25 nadww01



APPENDIX C

Photographic Log



Photographic Log
Maverick Permian, LLC
Leamex 018 Flowline
NAPP2234158858



Photograph 1
Date: 11/30/2022
Description: Initial Release
View: West



Photograph 2
Date: 11/30/2022
Description: Initial Release
View: Northeast



Photograph 3
Date: 11/30/2022
Description: Initial Release
View: North



Photograph 4
Date: 11/30/2022
Description: Initial Release
View: Northeast



Photographic Log
 Maverick Permian, LLC
 Leamix 018 Flowline
 NAPP2234158858



Photograph 5 Date: 1/19/2023
 Description: Excavation Activities
 View: Northeast



Photograph 6 Date: 2/22/2023
 Description: Excavation Activities
 View: Northwest



Photograph 7 Date: 2/22/2023
 Description: Excavation Activities
 View: Southwest



Photograph 8 Date: 2/22/2023
 Description: Excavation Activities
 View: Southeast



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 01, 2023

KALEI JENNINGS

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: LEA MEX 018 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 05/26/23 12:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/25/2023
Reported:	06/01/2023	Sampling Type:	Soil
Project Name:	LEA MEX 018 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057073	Sample Received By:	Tamara Oldaker
Project Location:	32.830488,-103.6631		

Sample ID: SW 08 0'-2' (H232701-01)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/27/2023	ND	2.08	104	2.00	1.75	
Toluene*	<0.050	0.050	05/27/2023	ND	2.11	105	2.00	0.353	
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.19	110	2.00	0.0157	
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.41	107	6.00	0.392	
Total BTEx	<0.300	0.300	05/27/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/30/2023	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	178	88.8	200	5.72	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	181	90.4	200	5.11	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane 82.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/25/2023
Reported:	06/01/2023	Sampling Type:	Soil
Project Name:	LEA MEX 018 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057073	Sample Received By:	Tamara Oldaker
Project Location:	32.830488,-103.6631		

Sample ID: CS 56 1.0' (H232701-02)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/27/2023	ND	2.08	104	2.00	1.75		
Toluene*	<0.050	0.050	05/27/2023	ND	2.11	105	2.00	0.353		
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.19	110	2.00	0.0157		
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.41	107	6.00	0.392		
Total BTEx	<0.300	0.300	05/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/30/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	178	88.8	200	5.72	
DRO >C10-C28*	14.2	10.0	05/30/2023	ND	181	90.4	200	5.11	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane 77.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/25/2023
Reported:	06/01/2023	Sampling Type:	Soil
Project Name:	LEA MEX 018 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057073	Sample Received By:	Tamara Oldaker
Project Location:	32.830488,-103.6631		

Sample ID: CS 57 1.0' (H232701-03)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/27/2023	ND	2.08	104	2.00	1.75		
Toluene*	<0.050	0.050	05/27/2023	ND	2.11	105	2.00	0.353		
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.19	110	2.00	0.0157		
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.41	107	6.00	0.392		
Total BTEx	<0.300	0.300	05/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/30/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	178	88.8	200	5.72	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	181	90.4	200	5.11	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane 80.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
KALEI JENNINGS
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	05/26/2023	Sampling Date:	05/25/2023
Reported:	06/01/2023	Sampling Type:	Soil
Project Name:	LEA MEX 018 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057073	Sample Received By:	Tamara Oldaker
Project Location:	32.830488,-103.6631		

Sample ID: CS 58 1.0' (H232701-04)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/27/2023	ND	2.08	104	2.00	1.75		
Toluene*	<0.050	0.050	05/27/2023	ND	2.11	105	2.00	0.353		
Ethylbenzene*	<0.050	0.050	05/27/2023	ND	2.19	110	2.00	0.0157		
Total Xylenes*	<0.150	0.150	05/27/2023	ND	6.41	107	6.00	0.392		
Total BTEx	<0.300	0.300	05/27/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	05/30/2023	ND	400	100	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2023	ND	178	88.8	200	5.72	
DRO >C10-C28*	<10.0	10.0	05/30/2023	ND	181	90.4	200	5.11	
EXT DRO >C28-C36	<10.0	10.0	05/30/2023	ND					

Surrogate: 1-Chlorooctane 82.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>Ensolum, LLC</u>				BILL TO										ANALYSIS REQUEST											
Project Manager: <u>Kalei Jennings</u>				P.O. #:																					
Address: <u>601 N. Marinfeld St. STE 400</u>				Company: <u>Ensolum LLC</u>																					
City: <u>Midland</u> State: <u>TX</u> Zip: <u>79701</u>				Attn: <u>Kalei Jennings</u>																					
Phone #: <u>817-683-2503</u> Fax #:				Address: <u>601 N. Marinfeld</u>																					
Project #: <u>03D2057073</u> Project Owner:				City: <u>Midland</u>																					
Project Name: <u>Leamex 018 Flowline</u>				State: <u>TX</u> Zip: <u>79701</u>																					
Project Location: <u>32.830488, -103.6631</u>				Phone #: <u>817-683-2503</u>																					
Sampler Name: <u>Peter Van Fatten</u>				Fax #:																					
FOR LAB USE ONLY																									
Lab I.D.	Sample I.D.	Sample Depth (feet)	(GRAB OR COMPOUND)	# CONTAINERS	MATRIX					PRESERV.		SAMPLING													
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	TPH	BTEX	Chlorides							
<u>H232701</u>	<u>1 SW08</u>	<u>0'-2'</u>	<u>C</u>	<u>1</u>			<u>✓</u>				<u>✓</u>	<u>✓</u>		<u>5-25-23</u>	<u>1445</u>	<u>X</u>	<u>X</u>	<u>X</u>							
	<u>2 CS56</u>	<u>1.0'</u>	<u>C</u>	<u>1</u>			<u>✓</u>				<u>✓</u>			<u>1</u>	<u>1450</u>	<u>X</u>	<u>X</u>	<u>X</u>							
	<u>3 CS57</u>	<u>1.0'</u>	<u>C</u>	<u>1</u>			<u>✓</u>				<u>✓</u>			<u>1455</u>	<u>1455</u>	<u>X</u>	<u>X</u>	<u>X</u>							
	<u>4 CS58</u>	<u>1.0'</u>	<u>C</u>	<u>1</u>			<u>✓</u>				<u>✓</u>			<u>✓</u>	<u>1500</u>	<u>X</u>	<u>X</u>	<u>X</u>							

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Relinquished By: <u>Peter Van Fatten</u>	Date: <u>5/24/23</u>	Received By: <u>[Signature]</u>	Verbal Result: ☐ Yes ☒ No Add'l Phone #:
	Time: <u>6:25</u>		All Results are emailed. Please provide Email address:
			<u>K.Jennings@ensolum.com</u>
Relinquished By: <u>[Signature]</u>	Date: <u>5-26-23</u>	Received By: <u>[Signature]</u>	REMARKS:
	Time: <u>1:05</u>		
Delivered By: (Circle One)	Observed Temp. °C <u>6.4</u>	Sample Condition Cool Intact ☒ Yes ☐ No	Turnaround Time: Standard ☒ Rush ☐
Sampler - UPS - Bus - Other:	Corrected Temp. °C <u>5.8</u>	CHECKED BY: <u>[Signature]</u> (Initials)	Bacteria (only) Sample Condition Cool Intact ☐ Yes ☐ No Observed Temp. °C
			Thermometer ID #113 Correction Factor -0.3°C <u>re 5/24/23</u> ☐ Yes ☐ No Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 2/5/2023 9:29:33 AM

JOB DESCRIPTION

Leamex 018
SDG NUMBER 03D2057048

JOB NUMBER

890-3928-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
2/5/2023 9:29:33 AM

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: 890-3928-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	19
Lab Chronicle	22
Certification Summary	26
Method Summary	27
Sample Summary	28
Chain of Custody	29
Receipt Checklists	30

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: 890-3928-1
SDG: 03D2057048

Job ID: 890-3928-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3928-1

Receipt

The samples were received on 1/23/2023 4:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: CS42 (890-3928-1), CS43 (890-3928-2), CS44 (890-3928-3), CS45 (890-3928-4), CS46 (890-3928-5), CS47 (890-3928-6), CS48 (890-3928-7), CS49 (890-3928-8), CS50 (890-3928-9) and CS51 (890-3928-10).

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: (MB 880-45268/1-A), (890-3928-A-1-E MS) and (890-3928-A-1-F MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS42

Lab Sample ID: 890-3928-1

Date Collected: 01/20/23 10:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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		02/02/23 11:21	02/03/23 06:05	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 06:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 06:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 06:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 06:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 06:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	02/02/23 11:21	02/03/23 06:05	1
1,4-Difluorobenzene (Surr)	108		70 - 130	02/02/23 11:21	02/03/23 06:05	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			02/03/23 10:24	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			02/05/23 09:18	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		02/02/23 13:41	02/04/23 21:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/02/23 13:41	02/04/23 21:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/02/23 13:41	02/04/23 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	02/02/23 13:41	02/04/23 21:19	1
o-Terphenyl	105		70 - 130	02/02/23 13:41	02/04/23 21:19	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.3		5.01	mg/Kg			01/29/23 19:08	1

Client Sample ID: CS43

Lab Sample ID: 890-3928-2

Date Collected: 01/20/23 12:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		02/02/23 11:21	02/03/23 06:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 06:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 06:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 06:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 06:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 06:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	02/02/23 11:21	02/03/23 06:26	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS43

Lab Sample ID: 890-3928-2

Date Collected: 01/20/23 12:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	113		70 - 130	02/02/23 11:21	02/03/23 06:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/03/23 10:24	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			02/05/23 09:18	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		02/02/23 13:41	02/04/23 22:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 22:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 22:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			02/02/23 13:41	02/04/23 22:25	1
o-Terphenyl	97		70 - 130			02/02/23 13:41	02/04/23 22:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.9		4.98	mg/Kg			01/29/23 19:14	1

Client Sample ID: CS44

Lab Sample ID: 890-3928-3

Date Collected: 01/20/23 12:25

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 06:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 06:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 06:46	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/02/23 11:21	02/03/23 06:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 06:46	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/02/23 11:21	02/03/23 06:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	02/02/23 11:21	02/03/23 06:46	1
1,4-Difluorobenzene (Surr)	114		70 - 130	02/02/23 11:21	02/03/23 06:46	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			02/03/23 10:24	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			02/05/23 09:18	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS44

Lab Sample ID: 890-3928-3

Date Collected: 01/20/23 12:25

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		02/02/23 13:41	02/04/23 22:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/02/23 13:41	02/04/23 22:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/02/23 13:41	02/04/23 22:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			02/02/23 13:41	02/04/23 22:47	1
o-Terphenyl	91		70 - 130			02/02/23 13:41	02/04/23 22:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.18		4.95	mg/Kg			01/29/23 19:20	1

Client Sample ID: CS45

Lab Sample ID: 890-3928-4

Date Collected: 01/20/23 12:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		02/02/23 11:21	02/03/23 07:06	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 07:06	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 07:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 07:06	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 07:06	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 07:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/02/23 11:21	02/03/23 07:06	1
1,4-Difluorobenzene (Surr)	113		70 - 130			02/02/23 11:21	02/03/23 07:06	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			02/03/23 10:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	126		50.0	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/04/23 23:09	1
Diesel Range Organics (Over C10-C28)	126		50.0	mg/Kg		02/02/23 13:41	02/04/23 23:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/02/23 13:41	02/04/23 23:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			02/02/23 13:41	02/04/23 23:09	1
o-Terphenyl	90		70 - 130			02/02/23 13:41	02/04/23 23:09	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS45

Lab Sample ID: 890-3928-4

Date Collected: 01/20/23 12:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.7		4.99	mg/Kg			01/29/23 19:39	1

Client Sample ID: CS46

Lab Sample ID: 890-3928-5

Date Collected: 01/20/23 12:35

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 07:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 07:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 07:27	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/02/23 11:21	02/03/23 07:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 07:27	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/02/23 11:21	02/03/23 07:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			02/02/23 11:21	02/03/23 07:27	1
1,4-Difluorobenzene (Surr)	111		70 - 130			02/02/23 11:21	02/03/23 07:27	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			02/03/23 10:24	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			02/05/23 09:18	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		02/02/23 13:41	02/04/23 23:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 23:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 23:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			02/02/23 13:41	02/04/23 23:31	1
o-Terphenyl	95		70 - 130			02/02/23 13:41	02/04/23 23:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.94		4.95	mg/Kg			01/29/23 19:45	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS47

Lab Sample ID: 890-3928-6

Date Collected: 01/20/23 13:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		02/02/23 11:21	02/03/23 07:47	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 07:47	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 07:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 07:47	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 07:47	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 07:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	02/02/23 11:21	02/03/23 07:47	1
1,4-Difluorobenzene (Surr)	110		70 - 130	02/02/23 11:21	02/03/23 07:47	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			02/03/23 10:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	440		49.9	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/04/23 23:53	1
Diesel Range Organics (Over C10-C28)	387		49.9	mg/Kg		02/02/23 13:41	02/04/23 23:53	1
Oil Range Organics (Over C28-C36)	53.3		49.9	mg/Kg		02/02/23 13:41	02/04/23 23:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	02/02/23 13:41	02/04/23 23:53	1
o-Terphenyl	103		70 - 130	02/02/23 13:41	02/04/23 23:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.8		4.97	mg/Kg			01/29/23 20:04	1

Client Sample ID: CS48

Lab Sample ID: 890-3928-7

Date Collected: 01/20/23 13:35

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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		02/02/23 11:21	02/03/23 08:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 08:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 08:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 08:08	1
o-Xylene	0.00499		0.00199	mg/Kg		02/02/23 11:21	02/03/23 08:08	1
Xylenes, Total	0.00499		0.00398	mg/Kg		02/02/23 11:21	02/03/23 08:08	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS48

Lab Sample ID: 890-3928-7

Date Collected: 01/20/23 13:35

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/02/23 11:21	02/03/23 08:08	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/02/23 11:21	02/03/23 08:08	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00499		0.00398	mg/Kg			02/03/23 10:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	481		49.9	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 00:14	1
Diesel Range Organics (Over C10-C28)	427		49.9	mg/Kg		02/02/23 13:41	02/05/23 00:14	1
Oil Range Organics (Over C28-C36)	54.3		49.9	mg/Kg		02/02/23 13:41	02/05/23 00:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	02/02/23 13:41	02/05/23 00:14	1
o-Terphenyl	100		70 - 130	02/02/23 13:41	02/05/23 00:14	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.2		4.96	mg/Kg			01/29/23 20:10	1

Client Sample ID: CS49

Lab Sample ID: 890-3928-8

Date Collected: 01/20/23 13:40

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 08:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 08:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 08:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/02/23 11:21	02/03/23 08:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 08:28	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/02/23 11:21	02/03/23 08:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	02/02/23 11:21	02/03/23 08:28	1
1,4-Difluorobenzene (Surr)	111		70 - 130	02/02/23 11:21	02/03/23 08:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/03/23 10:24	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS49

Lab Sample ID: 890-3928-8

Date Collected: 01/20/23 13:40

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	325		49.9	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 00:36	1
Diesel Range Organics (Over C10-C28)	325		49.9	mg/Kg		02/02/23 13:41	02/05/23 00:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 00:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			02/02/23 13:41	02/05/23 00:36	1
o-Terphenyl	103		70 - 130			02/02/23 13:41	02/05/23 00:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.6		4.99	mg/Kg			01/29/23 20:16	1

Client Sample ID: CS50

Lab Sample ID: 890-3928-9

Date Collected: 01/20/23 13:50

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		02/02/23 11:21	02/03/23 08:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 08:49	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 08:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 08:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/23 11:21	02/03/23 08:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/02/23 11:21	02/03/23 08:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			02/02/23 11:21	02/03/23 08:49	1
1,4-Difluorobenzene (Surr)	110		70 - 130			02/02/23 11:21	02/03/23 08:49	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			02/03/23 10:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	53.2		49.9	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 00:57	1
Diesel Range Organics (Over C10-C28)	53.2		49.9	mg/Kg		02/02/23 13:41	02/05/23 00:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 00:57	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS50

Lab Sample ID: 890-3928-9

Date Collected: 01/20/23 13:50

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	02/02/23 13:41	02/05/23 00:57	1
o-Terphenyl	89		70 - 130	02/02/23 13:41	02/05/23 00:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		5.02	mg/Kg			01/29/23 20:22	1

Client Sample ID: CS51

Lab Sample ID: 890-3928-10

Date Collected: 01/20/23 13:55

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 09:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 09:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 09:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/02/23 11:21	02/03/23 09:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 09:09	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/02/23 11:21	02/03/23 09:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	02/02/23 11:21	02/03/23 09:09	1
1,4-Difluorobenzene (Surr)	114		70 - 130	02/02/23 11:21	02/03/23 09:09	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			02/03/23 10:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	132		50.0	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 01:18	1
Diesel Range Organics (Over C10-C28)	132		50.0	mg/Kg		02/02/23 13:41	02/05/23 01:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/02/23 13:41	02/05/23 01:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	02/02/23 13:41	02/05/23 01:18	1
o-Terphenyl	102		70 - 130	02/02/23 13:41	02/05/23 01:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.8		5.01	mg/Kg			01/29/23 20:28	1

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Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

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)
890-3919-A-6-D MS	Matrix Spike	100	110
890-3919-A-6-E MSD	Matrix Spike Duplicate	100	111
890-3928-1	CS42	107	108
890-3928-2	CS43	113	113
890-3928-3	CS44	113	114
890-3928-4	CS45	104	113
890-3928-5	CS46	112	111
890-3928-6	CS47	102	110
890-3928-7	CS48	104	109
890-3928-8	CS49	105	111
890-3928-9	CS50	106	110
890-3928-10	CS51	100	114
LCS 880-45248/1-A	Lab Control Sample	104	113
LCSD 880-45248/2-A	Lab Control Sample Dup	102	110
MB 880-45242/5-A	Method Blank	105	109
MB 880-45248/5-A	Method Blank	104	108
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)
890-3928-1	CS42	94	105
890-3928-1 MS	CS42	16 S1-	12 S1-
890-3928-1 MSD	CS42	17 S1-	10 S1-
890-3928-2	CS43	90	97
890-3928-3	CS44	82	91
890-3928-4	CS45	83	90
890-3928-5	CS46	87	95
890-3928-6	CS47	96	103
890-3928-7	CS48	93	100
890-3928-8	CS49	95	103
890-3928-9	CS50	82	89
890-3928-10	CS51	96	102
LCS 880-45268/2-A	Lab Control Sample	90	94
LCSD 880-45268/3-A	Lab Control Sample Dup	89	93
MB 880-45268/1-A	Method Blank	124	138 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45242/5-A

Matrix: Solid

Analysis Batch: 45232

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45242

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:47	02/02/23 12:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:47	02/02/23 12:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:47	02/02/23 12:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/02/23 09:47	02/02/23 12:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:47	02/02/23 12:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/02/23 09:47	02/02/23 12:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	02/02/23 09:47	02/02/23 12:05	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/02/23 09:47	02/02/23 12:05	1

Lab Sample ID: MB 880-45248/5-A

Matrix: Solid

Analysis Batch: 45232

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45248

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 00:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 00:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 00:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/02/23 11:21	02/03/23 00:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 11:21	02/03/23 00:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/02/23 11:21	02/03/23 00:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/02/23 11:21	02/03/23 00:42	1
1,4-Difluorobenzene (Surr)	108		70 - 130	02/02/23 11:21	02/03/23 00:42	1

Lab Sample ID: LCS 880-45248/1-A

Matrix: Solid

Analysis Batch: 45232

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45248

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1033		mg/Kg		103	70 - 130
Toluene	0.100	0.09840		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09802		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	0.200	0.2064		mg/Kg		103	70 - 130
o-Xylene	0.100	0.09982		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: LCSD 880-45248/2-A

Matrix: Solid

Analysis Batch: 45232

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45248

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09860		mg/Kg		99	70 - 130	5	35

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

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

Lab Sample ID: LCSD 880-45248/2-A

Matrix: Solid

Analysis Batch: 45232

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45248

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.09527		mg/Kg		95	70 - 130	3	35
Ethylbenzene	0.100	0.09549		mg/Kg		95	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2027		mg/Kg		101	70 - 130	2	35
o-Xylene	0.100	0.09755		mg/Kg		98	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-3919-A-6-D MS

Matrix: Solid

Analysis Batch: 45232

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45248

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0996	0.09077		mg/Kg		91	70 - 130
Toluene	<0.00201	U	0.0996	0.08695		mg/Kg		87	70 - 130
Ethylbenzene	<0.00201	U	0.0996	0.08681		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.1839		mg/Kg		92	70 - 130
o-Xylene	<0.00201	U	0.0996	0.08892		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-3919-A-6-E MSD

Matrix: Solid

Analysis Batch: 45232

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45248

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.100	0.09693		mg/Kg		97	70 - 130	7	35
Toluene	<0.00201	U	0.100	0.09034		mg/Kg		90	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.100	0.08962		mg/Kg		89	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1890		mg/Kg		94	70 - 130	3	35
o-Xylene	<0.00201	U	0.100	0.09196		mg/Kg		92	70 - 130	3	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

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

Lab Sample ID: MB 880-45268/1-A

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45268

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 20:13	1

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

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

Lab Sample ID: MB 880-45268/1-A

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45268

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 20:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 20:13	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	124		70 - 130			02/02/23 13:41	02/04/23 20:13	1
o-Terphenyl	138	S1+	70 - 130			02/02/23 13:41	02/04/23 20:13	1

Lab Sample ID: LCS 880-45268/2-A

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45268

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits	
		Result	Qualifier					
Gasoline Range Organics (GRO)-C6-C10	999	869.5		mg/Kg		87	70 - 130	
Diesel Range Organics (Over C10-C28)	999	892.5		mg/Kg		89	70 - 130	
Surrogate		LCS	LCS			%Recovery	Qualifier	Limits
		%Recovery						
1-Chlorooctane		90						70 - 130
o-Terphenyl		94						70 - 130

Lab Sample ID: LCSD 880-45268/3-A

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45268

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
		Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	999	837.4		mg/Kg		84	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	999	880.3		mg/Kg		88	70 - 130	1	20
Surrogate		LCSD	LCSD			%Recovery	Qualifier	Limits	
		%Recovery							
1-Chlorooctane		89						70 - 130	
o-Terphenyl		93						70 - 130	

Lab Sample ID: 890-3928-1 MS

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: CS42

Prep Type: Total/NA

Prep Batch: 45268

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits	
	Result	Qualifier		Result	Qualifier					
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1051		mg/Kg		103	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1120		mg/Kg		108	70 - 130	
Surrogate	MS	MS		%Recovery	Qualifier	Limits				
1-Chlorooctane	16	S1-				70 - 130				
o-Terphenyl	12	S1-				70 - 130				

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

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

Lab Sample ID: 890-3928-1 MSD

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: CS42

Prep Type: Total/NA

Prep Batch: 45268

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	998	994.5		mg/Kg		97	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1097		mg/Kg		106	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	17	S1-	70 - 130								
o-Terphenyl	10	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44795/1-A

Matrix: Solid

Analysis Batch: 45051

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			01/29/23 17:36	1

Lab Sample ID: LCS 880-44795/2-A

Matrix: Solid

Analysis Batch: 45051

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	249.3		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-44795/3-A

Matrix: Solid

Analysis Batch: 45051

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	249.8		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-3928-3 MS

Matrix: Solid

Analysis Batch: 45051

Client Sample ID: CS44

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	8.18		248	237.7		mg/Kg		93	90 - 110

Lab Sample ID: 890-3928-3 MSD

Matrix: Solid

Analysis Batch: 45051

Client Sample ID: CS44

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8.18		248	238.4		mg/Kg		93	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

GC VOA

Analysis Batch: 45232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3928-1	CS42	Total/NA	Solid	8021B	45248
890-3928-2	CS43	Total/NA	Solid	8021B	45248
890-3928-3	CS44	Total/NA	Solid	8021B	45248
890-3928-4	CS45	Total/NA	Solid	8021B	45248
890-3928-5	CS46	Total/NA	Solid	8021B	45248
890-3928-6	CS47	Total/NA	Solid	8021B	45248
890-3928-7	CS48	Total/NA	Solid	8021B	45248
890-3928-8	CS49	Total/NA	Solid	8021B	45248
890-3928-9	CS50	Total/NA	Solid	8021B	45248
890-3928-10	CS51	Total/NA	Solid	8021B	45248
MB 880-45242/5-A	Method Blank	Total/NA	Solid	8021B	45242
MB 880-45248/5-A	Method Blank	Total/NA	Solid	8021B	45248
LCS 880-45248/1-A	Lab Control Sample	Total/NA	Solid	8021B	45248
LCSD 880-45248/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45248
890-3919-A-6-D MS	Matrix Spike	Total/NA	Solid	8021B	45248
890-3919-A-6-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45248

Prep Batch: 45242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45242/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3928-1	CS42	Total/NA	Solid	5035	
890-3928-2	CS43	Total/NA	Solid	5035	
890-3928-3	CS44	Total/NA	Solid	5035	
890-3928-4	CS45	Total/NA	Solid	5035	
890-3928-5	CS46	Total/NA	Solid	5035	
890-3928-6	CS47	Total/NA	Solid	5035	
890-3928-7	CS48	Total/NA	Solid	5035	
890-3928-8	CS49	Total/NA	Solid	5035	
890-3928-9	CS50	Total/NA	Solid	5035	
890-3928-10	CS51	Total/NA	Solid	5035	
MB 880-45248/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45248/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45248/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3919-A-6-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3919-A-6-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3928-1	CS42	Total/NA	Solid	Total BTEX	
890-3928-2	CS43	Total/NA	Solid	Total BTEX	
890-3928-3	CS44	Total/NA	Solid	Total BTEX	
890-3928-4	CS45	Total/NA	Solid	Total BTEX	
890-3928-5	CS46	Total/NA	Solid	Total BTEX	
890-3928-6	CS47	Total/NA	Solid	Total BTEX	
890-3928-7	CS48	Total/NA	Solid	Total BTEX	
890-3928-8	CS49	Total/NA	Solid	Total BTEX	
890-3928-9	CS50	Total/NA	Solid	Total BTEX	
890-3928-10	CS51	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

GC Semi VOA

Prep Batch: 45268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3928-1	CS42	Total/NA	Solid	8015NM Prep	
890-3928-2	CS43	Total/NA	Solid	8015NM Prep	
890-3928-3	CS44	Total/NA	Solid	8015NM Prep	
890-3928-4	CS45	Total/NA	Solid	8015NM Prep	
890-3928-5	CS46	Total/NA	Solid	8015NM Prep	
890-3928-6	CS47	Total/NA	Solid	8015NM Prep	
890-3928-7	CS48	Total/NA	Solid	8015NM Prep	
890-3928-8	CS49	Total/NA	Solid	8015NM Prep	
890-3928-9	CS50	Total/NA	Solid	8015NM Prep	
890-3928-10	CS51	Total/NA	Solid	8015NM Prep	
MB 880-45268/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45268/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45268/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3928-1 MS	CS42	Total/NA	Solid	8015NM Prep	
890-3928-1 MSD	CS42	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3928-1	CS42	Total/NA	Solid	8015B NM	45268
890-3928-2	CS43	Total/NA	Solid	8015B NM	45268
890-3928-3	CS44	Total/NA	Solid	8015B NM	45268
890-3928-4	CS45	Total/NA	Solid	8015B NM	45268
890-3928-5	CS46	Total/NA	Solid	8015B NM	45268
890-3928-6	CS47	Total/NA	Solid	8015B NM	45268
890-3928-7	CS48	Total/NA	Solid	8015B NM	45268
890-3928-8	CS49	Total/NA	Solid	8015B NM	45268
890-3928-9	CS50	Total/NA	Solid	8015B NM	45268
890-3928-10	CS51	Total/NA	Solid	8015B NM	45268
MB 880-45268/1-A	Method Blank	Total/NA	Solid	8015B NM	45268
LCS 880-45268/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45268
LCSD 880-45268/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45268
890-3928-1 MS	CS42	Total/NA	Solid	8015B NM	45268
890-3928-1 MSD	CS42	Total/NA	Solid	8015B NM	45268

Analysis Batch: 45493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3928-1	CS42	Total/NA	Solid	8015 NM	
890-3928-2	CS43	Total/NA	Solid	8015 NM	
890-3928-3	CS44	Total/NA	Solid	8015 NM	
890-3928-4	CS45	Total/NA	Solid	8015 NM	
890-3928-5	CS46	Total/NA	Solid	8015 NM	
890-3928-6	CS47	Total/NA	Solid	8015 NM	
890-3928-7	CS48	Total/NA	Solid	8015 NM	
890-3928-8	CS49	Total/NA	Solid	8015 NM	
890-3928-9	CS50	Total/NA	Solid	8015 NM	
890-3928-10	CS51	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

HPLC/IC

Leach Batch: 44795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3928-1	CS42	Soluble	Solid	DI Leach	
890-3928-2	CS43	Soluble	Solid	DI Leach	
890-3928-3	CS44	Soluble	Solid	DI Leach	
890-3928-4	CS45	Soluble	Solid	DI Leach	
890-3928-5	CS46	Soluble	Solid	DI Leach	
890-3928-6	CS47	Soluble	Solid	DI Leach	
890-3928-7	CS48	Soluble	Solid	DI Leach	
890-3928-8	CS49	Soluble	Solid	DI Leach	
890-3928-9	CS50	Soluble	Solid	DI Leach	
890-3928-10	CS51	Soluble	Solid	DI Leach	
MB 880-44795/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44795/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44795/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3928-3 MS	CS44	Soluble	Solid	DI Leach	
890-3928-3 MSD	CS44	Soluble	Solid	DI Leach	

Analysis Batch: 45051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3928-1	CS42	Soluble	Solid	300.0	44795
890-3928-2	CS43	Soluble	Solid	300.0	44795
890-3928-3	CS44	Soluble	Solid	300.0	44795
890-3928-4	CS45	Soluble	Solid	300.0	44795
890-3928-5	CS46	Soluble	Solid	300.0	44795
890-3928-6	CS47	Soluble	Solid	300.0	44795
890-3928-7	CS48	Soluble	Solid	300.0	44795
890-3928-8	CS49	Soluble	Solid	300.0	44795
890-3928-9	CS50	Soluble	Solid	300.0	44795
890-3928-10	CS51	Soluble	Solid	300.0	44795
MB 880-44795/1-A	Method Blank	Soluble	Solid	300.0	44795
LCS 880-44795/2-A	Lab Control Sample	Soluble	Solid	300.0	44795
LCSD 880-44795/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44795
890-3928-3 MS	CS44	Soluble	Solid	300.0	44795
890-3928-3 MSD	CS44	Soluble	Solid	300.0	44795

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS42
Date Collected: 01/20/23 10:30
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3928-1
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	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 06:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 21:19	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 19:08	CH	EET MID

Client Sample ID: CS43
Date Collected: 01/20/23 12:20
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3928-2
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	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 06:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 22:25	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 19:14	CH	EET MID

Client Sample ID: CS44
Date Collected: 01/20/23 12:25
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3928-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 06:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 22:47	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 19:20	CH	EET MID

Client Sample ID: CS45
Date Collected: 01/20/23 12:30
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3928-4
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			5.02 g	5 mL	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 07:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS45**Lab Sample ID: 890-3928-4****Date Collected: 01/20/23 12:30****Matrix: Solid****Date Received: 01/23/23 16:24**

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			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 23:09	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 19:39	CH	EET MID

Client Sample ID: CS46**Lab Sample ID: 890-3928-5****Date Collected: 01/20/23 12:35****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 07:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 23:31	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 19:45	CH	EET MID

Client Sample ID: CS47**Lab Sample ID: 890-3928-6****Date Collected: 01/20/23 13:30****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 07:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 23:53	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 20:04	CH	EET MID

Client Sample ID: CS48**Lab Sample ID: 890-3928-7****Date Collected: 01/20/23 13:35****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 08:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 00:14	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Client Sample ID: CS48**Lab Sample ID: 890-3928-7****Date Collected: 01/20/23 13:35****Matrix: Solid****Date Received: 01/23/23 16:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 20:10	CH	EET MID

Client Sample ID: CS49**Lab Sample ID: 890-3928-8****Date Collected: 01/20/23 13:40****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 08:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 00:36	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 20:16	CH	EET MID

Client Sample ID: CS50**Lab Sample ID: 890-3928-9****Date Collected: 01/20/23 13:50****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 08:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 00:57	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 20:22	CH	EET MID

Client Sample ID: CS51**Lab Sample ID: 890-3928-10****Date Collected: 01/20/23 13:55****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45248	02/02/23 11:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45232	02/03/23 09:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45348	02/03/23 10:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45493	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 01:18	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 20:28	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

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Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3928-1
SDG: 03D2057048

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	EPA	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
- EPA = US Environmental Protection Agency
- 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: 890-3928-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3928-1	CS42	Solid	01/20/23 10:30	01/23/23 16:24	1.5'
890-3928-2	CS43	Solid	01/20/23 12:20	01/23/23 16:24	2'
890-3928-3	CS44	Solid	01/20/23 12:25	01/23/23 16:24	2'
890-3928-4	CS45	Solid	01/20/23 12:30	01/23/23 16:24	2'
890-3928-5	CS46	Solid	01/20/23 12:35	01/23/23 16:24	2'
890-3928-6	CS47	Solid	01/20/23 13:30	01/23/23 16:24	2'
890-3928-7	CS48	Solid	01/20/23 13:35	01/23/23 16:24	1.5'
890-3928-8	CS49	Solid	01/20/23 13:40	01/23/23 16:24	1.5'
890-3928-9	CS50	Solid	01/20/23 13:50	01/23/23 16:24	1'
890-3928-10	CS51	Solid	01/20/23 13:55	01/23/23 16:24	1'



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

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

Project Name:		Leamex 018		Turn Around		ANALYSIS REQUEST												Preservative Codes				
Project Number:		03D2057048		☒ Routine ☐ Rush		Pres. Code														None: NO DI Water: H ₂ O		
Project Location:		Lea County, NM		Due Date:																Cool: Cool MeOH: Me		
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm																HCL: HC HNO ₃ : HN		
PO #:																				H ₂ SO ₄ : H ₂ NaOH: Na		
SAMPLE RECEIPT		Temp Blank: ☒ Yes ☐ No		Wet Ice: ☒ Yes ☐ No																H ₃ PO ₄ : HP		
Samples Received Intact:		☒ Yes ☐ No		Thermometer ID:		TAM-807														NaHSO ₄ : NABIS		
Cooler Custody Seals:		Yes ☐ No ☒ N/A		Correction Factor:		-0.2														Na ₂ S ₂ O ₃ : NaSO ₃		
Sample Custody Seals:		Yes ☐ No ☒ N/A		Temperature Reading:		2.2														Zn Acetate+NaOH: Zn		
Total Containers:				Corrected Temperature:		2.0														NaOH+Ascorbic Acid: SAPC		
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)											Sample Comments	
CS42	S	1/20/2023	10:30	1.5'	Comp	1	x	x	x													
CS43	S	1/20/2023	12:20	2'	Comp	1	x	x	x													
CS44	S	1/20/2023	12:25	2'	Comp	1	x	x	x													
CS45	S	1/20/2023	12:30	2'	Comp	1	x	x	x													
CS46	S	1/20/2023	12:35	2'	Comp	1	x	x	x													
CS47	S	1/20/2023	13:30	2'	Comp	1	x	x	x													
CS48	S	1/20/2023	13:35	1.5'	Comp	1	x	x	x													
CS49	S	1/20/2023	13:40	1.5'	Comp	1	x	x	x													
CS50	S	1/20/2023	13:50	1'	Comp	1	x	x	x													
CS51	S	1/20/2023	13:55	1'	Comp	1	x	x	x													

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti 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 <i>[Signature]</i>	<i>[Signature]</i>	1-23-23 1624	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3928-1

SDG Number: 03D2057048

Login Number: 3928

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: 890-3928-1

SDG Number: 03D2057048

Login Number: 3928

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/25/23 12:13 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	



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
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- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 2/5/2023 9:30:06 AM

JOB DESCRIPTION

Leamex 018
SDG NUMBER 03D2057048

JOB NUMBER

890-3929-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
2/5/2023 9:30:06 AM

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: 890-3929-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	21
Lab Chronicle	24
Certification Summary	28
Method Summary	29
Sample Summary	30
Chain of Custody	31
Receipt Checklists	32

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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.
α	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: 890-3929-1
SDG: 03D2057048

Job ID: 890-3929-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3929-1

Receipt

The samples were received on 1/23/2023 4:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: CS32 (890-3929-1), CS33 (890-3929-2), CS34 (890-3929-3), CS35 (890-3929-4), CS36 (890-3929-5), CS37 (890-3929-6), CS38 (890-3929-7), CS39 (890-3929-8), CS40 (890-3929-9) and CS41 (890-3929-10).

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: (MB 880-45268/1-A), (890-3928-A-1-E MS) and (890-3928-A-1-F MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS32

Lab Sample ID: 890-3929-1

Date Collected: 01/19/23 14:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 08:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 08:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 08:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/31/23 14:51	02/01/23 08:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 08:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/31/23 14:51	02/01/23 08:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	01/31/23 14:51	02/01/23 08:18	1
1,4-Difluorobenzene (Surr)	84		70 - 130	01/31/23 14:51	02/01/23 08:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/01/23 16:55	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			02/04/23 09:57	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		02/01/23 14:44	02/04/23 05:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 14:44	02/04/23 05:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 14:44	02/04/23 05:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	02/01/23 14:44	02/04/23 05:02	1
o-Terphenyl	90		70 - 130	02/01/23 14:44	02/04/23 05:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.53		5.01	mg/Kg			01/29/23 21:30	1

Client Sample ID: CS33

Lab Sample ID: 890-3929-2

Date Collected: 01/20/23 09:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/31/23 14:51	02/01/23 08:38	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 08:38	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 08:38	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/31/23 14:51	02/01/23 08:38	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 08:38	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/31/23 14:51	02/01/23 08:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	01/31/23 14:51	02/01/23 08:38	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS33

Lab Sample ID: 890-3929-2

Date Collected: 01/20/23 09:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	01/31/23 14:51	02/01/23 08:38	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			02/01/23 16:55	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			02/05/23 09:18	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		02/02/23 13:41	02/05/23 02:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 02:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 02:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/02/23 13:41	02/05/23 02:01	1
o-Terphenyl	104		70 - 130			02/02/23 13:41	02/05/23 02:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.7		4.98	mg/Kg			01/29/23 21:48	1

Client Sample ID: CS34

Lab Sample ID: 890-3929-3

Date Collected: 01/20/23 09:25

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/31/23 14:51	02/01/23 08:59	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 08:59	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 08:59	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/31/23 14:51	02/01/23 08:59	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 08:59	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/31/23 14:51	02/01/23 08:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	01/31/23 14:51	02/01/23 08:59	1
1,4-Difluorobenzene (Surr)	105		70 - 130	01/31/23 14:51	02/01/23 08:59	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			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	93.0		49.9	mg/Kg			02/05/23 09:18	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS34

Lab Sample ID: 890-3929-3

Date Collected: 01/20/23 09:25

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		02/02/23 13:41	02/05/23 02:22	1
Diesel Range Organics (Over C10-C28)	93.0		49.9	mg/Kg		02/02/23 13:41	02/05/23 02:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 02:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/02/23 13:41	02/05/23 02:22	1
o-Terphenyl	107		70 - 130			02/02/23 13:41	02/05/23 02:22	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.9		4.95	mg/Kg			01/29/23 21:54	1

Client Sample ID: CS35

Lab Sample ID: 890-3929-4

Date Collected: 01/20/23 09:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 09:20	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 09:20	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 09:20	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/31/23 14:51	02/01/23 09:20	1
o-Xylene	0.00219		0.00202	mg/Kg		01/31/23 14:51	02/01/23 09:20	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/31/23 14:51	02/01/23 09:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			01/31/23 14:51	02/01/23 09:20	1
1,4-Difluorobenzene (Surr)	120		70 - 130			01/31/23 14:51	02/01/23 09:20	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			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	366		49.9	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 02:44	1
Diesel Range Organics (Over C10-C28)	314		49.9	mg/Kg		02/02/23 13:41	02/05/23 02:44	1
Oil Range Organics (Over C28-C36)	52.3		49.9	mg/Kg		02/02/23 13:41	02/05/23 02:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			02/02/23 13:41	02/05/23 02:44	1
o-Terphenyl	106		70 - 130			02/02/23 13:41	02/05/23 02:44	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS35

Lab Sample ID: 890-3929-4

Date Collected: 01/20/23 09:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	162		5.00	mg/Kg			01/29/23 22:01	1

Client Sample ID: CS36

Lab Sample ID: 890-3929-5

Date Collected: 01/20/23 09:35

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 09:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 09:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 09:41	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/31/23 14:51	02/01/23 09:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 09:41	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/31/23 14:51	02/01/23 09:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			01/31/23 14:51	02/01/23 09:41	1
1,4-Difluorobenzene (Surr)	86		70 - 130			01/31/23 14:51	02/01/23 09:41	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	578		49.9	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 03:05	1
Diesel Range Organics (Over C10-C28)	503		49.9	mg/Kg		02/02/23 13:41	02/05/23 03:05	1
Oil Range Organics (Over C28-C36)	75.1		49.9	mg/Kg		02/02/23 13:41	02/05/23 03:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			02/02/23 13:41	02/05/23 03:05	1
o-Terphenyl	92		70 - 130			02/02/23 13:41	02/05/23 03:05	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		4.99	mg/Kg			01/29/23 22:07	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS37

Lab Sample ID: 890-3929-6

Date Collected: 01/20/23 09:40

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/31/23 14:51	02/01/23 10:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 10:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 10:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/31/23 14:51	02/01/23 10:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 10:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/31/23 14:51	02/01/23 10:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	01/31/23 14:51	02/01/23 10:01	1
1,4-Difluorobenzene (Surr)	110		70 - 130	01/31/23 14:51	02/01/23 10:01	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			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	214		50.0	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 03:27	1
Diesel Range Organics (Over C10-C28)	214		50.0	mg/Kg		02/02/23 13:41	02/05/23 03:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/02/23 13:41	02/05/23 03:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	02/02/23 13:41	02/05/23 03:27	1
o-Terphenyl	106		70 - 130	02/02/23 13:41	02/05/23 03:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	60.3		5.02	mg/Kg			01/29/23 22:25	1

Client Sample ID: CS38

Lab Sample ID: 890-3929-7

Date Collected: 01/20/23 09:55

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/31/23 14:51	02/01/23 10:22	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 10:22	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 10:22	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/31/23 14:51	02/01/23 10:22	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 10:22	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/31/23 14:51	02/01/23 10:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	01/31/23 14:51	02/01/23 10:22	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS38

Lab Sample ID: 890-3929-7

Date Collected: 01/20/23 09:55

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	110		70 - 130	01/31/23 14:51	02/01/23 10:22	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			02/01/23 16:55	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			02/05/23 09:18	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		02/02/23 13:41	02/05/23 03:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 03:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 03:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			02/02/23 13:41	02/05/23 03:48	1
o-Terphenyl	91		70 - 130			02/02/23 13:41	02/05/23 03:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.17		4.99	mg/Kg			01/29/23 22:31	1

Client Sample ID: CS39

Lab Sample ID: 890-3929-8

Date Collected: 01/20/23 10:15

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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		01/31/23 14:51	02/01/23 10:43	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 10:43	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 10:43	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		01/31/23 14:51	02/01/23 10:43	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 10:43	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		01/31/23 14:51	02/01/23 10:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	01/31/23 14:51	02/01/23 10:43	1
1,4-Difluorobenzene (Surr)	111		70 - 130	01/31/23 14:51	02/01/23 10:43	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			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	294		49.9	mg/Kg			02/05/23 09:18	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS39

Lab Sample ID: 890-3929-8

Date Collected: 01/20/23 10:15

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 04:10	1
Diesel Range Organics (Over C10-C28)	294		49.9	mg/Kg		02/02/23 13:41	02/05/23 04:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 04:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			02/02/23 13:41	02/05/23 04:10	1
o-Terphenyl	95		70 - 130			02/02/23 13:41	02/05/23 04:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.6		4.95	mg/Kg			01/29/23 22:37	1

Client Sample ID: CS40

Lab Sample ID: 890-3929-9

Date Collected: 01/20/23 10:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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		01/31/23 14:51	02/01/23 11:03	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 11:03	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 11:03	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		01/31/23 14:51	02/01/23 11:03	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 11:03	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		01/31/23 14:51	02/01/23 11:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			01/31/23 14:51	02/01/23 11:03	1
1,4-Difluorobenzene (Surr)	114		70 - 130			01/31/23 14:51	02/01/23 11:03	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			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	213		49.9	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 04:31	1
Diesel Range Organics (Over C10-C28)	213		49.9	mg/Kg		02/02/23 13:41	02/05/23 04:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 04:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			02/02/23 13:41	02/05/23 04:31	1
o-Terphenyl	101		70 - 130			02/02/23 13:41	02/05/23 04:31	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS40

Lab Sample ID: 890-3929-9

Date Collected: 01/20/23 10:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27.1		5.05	mg/Kg			01/29/23 22:44	1

Client Sample ID: CS41

Lab Sample ID: 890-3929-10

Date Collected: 01/20/23 10:25

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 11:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 11:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 11:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/31/23 14:51	02/01/23 11:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 11:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/31/23 14:51	02/01/23 11:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			01/31/23 14:51	02/01/23 11:24	1
1,4-Difluorobenzene (Surr)	112		70 - 130			01/31/23 14:51	02/01/23 11:24	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	58.8		49.9	mg/Kg			02/05/23 09:18	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		02/02/23 13:41	02/05/23 04:53	1
Diesel Range Organics (Over C10-C28)	58.8		49.9	mg/Kg		02/02/23 13:41	02/05/23 04:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/05/23 04:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			02/02/23 13:41	02/05/23 04:53	1
o-Terphenyl	100		70 - 130			02/02/23 13:41	02/05/23 04:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.0		5.04	mg/Kg			01/29/23 22:50	1

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Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

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)
890-3929-1	CS32	93	84
890-3929-2	CS33	94	91
890-3929-3	CS34	107	105
890-3929-4	CS35	116	120
890-3929-5	CS36	98	86
890-3929-6	CS37	102	110
890-3929-7	CS38	105	110
890-3929-8	CS39	110	111
890-3929-9	CS40	109	114
890-3929-10	CS41	105	112
890-3931-A-1-D MS	Matrix Spike	101	109
890-3931-A-1-E MSD	Matrix Spike Duplicate	88	103
LCS 880-45152/1-A	Lab Control Sample	85	101
LCSD 880-45152/2-A	Lab Control Sample Dup	84	103
MB 880-45055/5-A	Method Blank	89	90
MB 880-45152/5-A	Method Blank	78	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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3901-A-1-D MS	Matrix Spike	110	103
890-3901-A-1-E MSD	Matrix Spike Duplicate	123	104
890-3928-A-1-E MS	Matrix Spike	16 S1-	12 S1-
890-3928-A-1-F MSD	Matrix Spike Duplicate	17 S1-	10 S1-
890-3929-1	CS32	86	90
890-3929-2	CS33	98	104
890-3929-3	CS34	98	107
890-3929-4	CS35	97	106
890-3929-5	CS36	86	92
890-3929-6	CS37	98	106
890-3929-7	CS38	84	91
890-3929-8	CS39	88	95
890-3929-9	CS40	94	101
890-3929-10	CS41	93	100
LCS 880-45212/2-A	Lab Control Sample	94	101
LCS 880-45268/2-A	Lab Control Sample	90	94
LCSD 880-45212/3-A	Lab Control Sample Dup	126	112
LCSD 880-45268/3-A	Lab Control Sample Dup	89	93
MB 880-45212/1-A	Method Blank	121	124
MB 880-45268/1-A	Method Blank	124	138 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45055/5-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45055

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/30/23 13:10	01/31/23 16:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	01/30/23 13:10	01/31/23 16:39	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/30/23 13:10	01/31/23 16:39	1

Lab Sample ID: MB 880-45152/5-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45152

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/31/23 14:51	02/01/23 03:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	01/31/23 14:51	02/01/23 03:25	1
1,4-Difluorobenzene (Surr)	94		70 - 130	01/31/23 14:51	02/01/23 03:25	1

Lab Sample ID: LCS 880-45152/1-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09313		mg/Kg		93	70 - 130
Toluene	0.100	0.08097		mg/Kg		81	70 - 130
Ethylbenzene	0.100	0.07141		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	0.200	0.1480		mg/Kg		74	70 - 130
o-Xylene	0.100	0.07618		mg/Kg		76	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-45152/2-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09913		mg/Kg		99	70 - 130	6	35

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

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

Lab Sample ID: LCSD 880-45152/2-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08615		mg/Kg		86	70 - 130	6	35
Ethylbenzene	0.100	0.07086		mg/Kg		71	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1504		mg/Kg		75	70 - 130	2	35
o-Xylene	0.100	0.07516		mg/Kg		75	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-3931-A-1-D MS

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.1135		mg/Kg		113	70 - 130
Toluene	<0.00202	U	0.101	0.09881		mg/Kg		97	70 - 130
Ethylbenzene	<0.00202	U F1	0.101	0.07397		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.202	0.1533		mg/Kg		76	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.08450		mg/Kg		84	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 890-3931-A-1-E MSD

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0996	0.09686		mg/Kg		97	70 - 130	16	35
Toluene	<0.00202	U	0.0996	0.08362		mg/Kg		83	70 - 130	17	35
Ethylbenzene	<0.00202	U F1	0.0996	0.06065	F1	mg/Kg		61	70 - 130	20	35
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.1274	F1	mg/Kg		64	70 - 130	18	35
o-Xylene	<0.00202	U F1	0.0996	0.06909	F1	mg/Kg		69	70 - 130	20	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

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

Lab Sample ID: MB 880-45212/1-A

Matrix: Solid

Analysis Batch: 45299

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45212

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 14:44	02/03/23 19:59	1

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

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

Lab Sample ID: MB 880-45212/1-A

Matrix: Solid

Analysis Batch: 45299

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45212

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 14:44	02/03/23 19:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 14:44	02/03/23 19:59	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			02/01/23 14:44	02/03/23 19:59	1
o-Terphenyl	124		70 - 130			02/01/23 14:44	02/03/23 19:59	1

Lab Sample ID: LCS 880-45212/2-A

Matrix: Solid

Analysis Batch: 45299

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	925.3		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	999	917.8		mg/Kg		92	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	94		70 - 130				
o-Terphenyl	101		70 - 130				

Lab Sample ID: LCSD 880-45212/3-A

Matrix: Solid

Analysis Batch: 45299

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	965.9		mg/Kg		97	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	999	1017		mg/Kg		102	70 - 130	10	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	126		70 - 130						
o-Terphenyl	112		70 - 130						

Lab Sample ID: 890-3901-A-1-D MS

Matrix: Solid

Analysis Batch: 45299

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45212

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	1000	1271		mg/Kg		126	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1072		mg/Kg		107	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	110		70 - 130						
o-Terphenyl	103		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

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

Lab Sample ID: 890-3901-A-1-E MSD

Matrix: Solid

Analysis Batch: 45299

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45212

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	998	1263		mg/Kg		125	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1068		mg/Kg		107	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	123		70 - 130								
o-Terphenyl	104		70 - 130								

Lab Sample ID: MB 880-45268/1-A

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45268

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 20:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 20:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:41	02/04/23 20:13	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130			02/02/23 13:41	02/04/23 20:13	1
o-Terphenyl	138	S1+	70 - 130			02/02/23 13:41	02/04/23 20:13	1

Lab Sample ID: LCS 880-45268/2-A

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45268

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	999	869.5		mg/Kg		87	70 - 130	
Diesel Range Organics (Over C10-C28)	999	892.5		mg/Kg		89	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
1-Chlorooctane	90		70 - 130					
o-Terphenyl	94		70 - 130					

Lab Sample ID: LCSD 880-45268/3-A

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45268

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	837.4		mg/Kg		84	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	999	880.3		mg/Kg		88	70 - 130	1	20

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

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

Lab Sample ID: LCSD 880-45268/3-A

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45268

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-3928-A-1-E MS

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45268

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1051		mg/Kg		103	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1120		mg/Kg		108	70 - 130	
Surrogate	%Recovery	Qualifier	Limits	MS	MS					
1-Chlorooctane	16	S1-	70 - 130							
o-Terphenyl	12	S1-	70 - 130							

Lab Sample ID: 890-3928-A-1-F MSD

Matrix: Solid

Analysis Batch: 45445

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45268

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	994.5		mg/Kg		97	70 - 130	6	20	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1097		mg/Kg		106	70 - 130	2	20	
Surrogate	%Recovery	Qualifier	Limits	MSD	MSD							
1-Chlorooctane	17	S1-	70 - 130									
o-Terphenyl	10	S1-	70 - 130									

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44793/1-A

Matrix: Solid

Analysis Batch: 45036

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac	
Chloride	<5.00	U	5.00	mg/Kg			01/29/23 21:11		1	

Lab Sample ID: LCS 880-44793/2-A

Matrix: Solid

Analysis Batch: 45036

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS						%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	250	254.5		mg/Kg		102	90 - 110			

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-44793/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 45036											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	255.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-3929-1 MS				Client Sample ID: CS32							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 45036											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	9.53		251	266.9		mg/Kg		103	90 - 110		

Lab Sample ID: 890-3929-1 MSD				Client Sample ID: CS32							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 45036											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	9.53		251	264.9		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

GC VOA

Prep Batch: 45055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45055/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 45130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-1	CS32	Total/NA	Solid	8021B	45152
890-3929-2	CS33	Total/NA	Solid	8021B	45152
890-3929-3	CS34	Total/NA	Solid	8021B	45152
890-3929-4	CS35	Total/NA	Solid	8021B	45152
890-3929-5	CS36	Total/NA	Solid	8021B	45152
890-3929-6	CS37	Total/NA	Solid	8021B	45152
890-3929-7	CS38	Total/NA	Solid	8021B	45152
890-3929-8	CS39	Total/NA	Solid	8021B	45152
890-3929-9	CS40	Total/NA	Solid	8021B	45152
890-3929-10	CS41	Total/NA	Solid	8021B	45152
MB 880-45055/5-A	Method Blank	Total/NA	Solid	8021B	45055
MB 880-45152/5-A	Method Blank	Total/NA	Solid	8021B	45152
LCS 880-45152/1-A	Lab Control Sample	Total/NA	Solid	8021B	45152
LCSD 880-45152/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45152
890-3931-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	45152
890-3931-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45152

Prep Batch: 45152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-1	CS32	Total/NA	Solid	5035	
890-3929-2	CS33	Total/NA	Solid	5035	
890-3929-3	CS34	Total/NA	Solid	5035	
890-3929-4	CS35	Total/NA	Solid	5035	
890-3929-5	CS36	Total/NA	Solid	5035	
890-3929-6	CS37	Total/NA	Solid	5035	
890-3929-7	CS38	Total/NA	Solid	5035	
890-3929-8	CS39	Total/NA	Solid	5035	
890-3929-9	CS40	Total/NA	Solid	5035	
890-3929-10	CS41	Total/NA	Solid	5035	
MB 880-45152/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45152/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45152/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3931-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3931-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-1	CS32	Total/NA	Solid	Total BTEX	
890-3929-2	CS33	Total/NA	Solid	Total BTEX	
890-3929-3	CS34	Total/NA	Solid	Total BTEX	
890-3929-4	CS35	Total/NA	Solid	Total BTEX	
890-3929-5	CS36	Total/NA	Solid	Total BTEX	
890-3929-6	CS37	Total/NA	Solid	Total BTEX	
890-3929-7	CS38	Total/NA	Solid	Total BTEX	
890-3929-8	CS39	Total/NA	Solid	Total BTEX	
890-3929-9	CS40	Total/NA	Solid	Total BTEX	
890-3929-10	CS41	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

GC Semi VOA

Prep Batch: 45212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-1	CS32	Total/NA	Solid	8015NM Prep	
MB 880-45212/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45212/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45212/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3901-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3901-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 45268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-2	CS33	Total/NA	Solid	8015NM Prep	
890-3929-3	CS34	Total/NA	Solid	8015NM Prep	
890-3929-4	CS35	Total/NA	Solid	8015NM Prep	
890-3929-5	CS36	Total/NA	Solid	8015NM Prep	
890-3929-6	CS37	Total/NA	Solid	8015NM Prep	
890-3929-7	CS38	Total/NA	Solid	8015NM Prep	
890-3929-8	CS39	Total/NA	Solid	8015NM Prep	
890-3929-9	CS40	Total/NA	Solid	8015NM Prep	
890-3929-10	CS41	Total/NA	Solid	8015NM Prep	
MB 880-45268/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45268/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45268/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3928-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3928-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-1	CS32	Total/NA	Solid	8015B NM	45212
MB 880-45212/1-A	Method Blank	Total/NA	Solid	8015B NM	45212
LCS 880-45212/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45212
LCSD 880-45212/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45212
890-3901-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45212
890-3901-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45212

Analysis Batch: 45445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-2	CS33	Total/NA	Solid	8015B NM	45268
890-3929-3	CS34	Total/NA	Solid	8015B NM	45268
890-3929-4	CS35	Total/NA	Solid	8015B NM	45268
890-3929-5	CS36	Total/NA	Solid	8015B NM	45268
890-3929-6	CS37	Total/NA	Solid	8015B NM	45268
890-3929-7	CS38	Total/NA	Solid	8015B NM	45268
890-3929-8	CS39	Total/NA	Solid	8015B NM	45268
890-3929-9	CS40	Total/NA	Solid	8015B NM	45268
890-3929-10	CS41	Total/NA	Solid	8015B NM	45268
MB 880-45268/1-A	Method Blank	Total/NA	Solid	8015B NM	45268
LCS 880-45268/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45268
LCSD 880-45268/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45268
890-3928-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	45268
890-3928-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45268

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

GC Semi VOA

Analysis Batch: 45462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-1	CS32	Total/NA	Solid	8015 NM	
890-3929-2	CS33	Total/NA	Solid	8015 NM	
890-3929-3	CS34	Total/NA	Solid	8015 NM	
890-3929-4	CS35	Total/NA	Solid	8015 NM	
890-3929-5	CS36	Total/NA	Solid	8015 NM	
890-3929-6	CS37	Total/NA	Solid	8015 NM	
890-3929-7	CS38	Total/NA	Solid	8015 NM	
890-3929-8	CS39	Total/NA	Solid	8015 NM	
890-3929-9	CS40	Total/NA	Solid	8015 NM	
890-3929-10	CS41	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-1	CS32	Soluble	Solid	DI Leach	
890-3929-2	CS33	Soluble	Solid	DI Leach	
890-3929-3	CS34	Soluble	Solid	DI Leach	
890-3929-4	CS35	Soluble	Solid	DI Leach	
890-3929-5	CS36	Soluble	Solid	DI Leach	
890-3929-6	CS37	Soluble	Solid	DI Leach	
890-3929-7	CS38	Soluble	Solid	DI Leach	
890-3929-8	CS39	Soluble	Solid	DI Leach	
890-3929-9	CS40	Soluble	Solid	DI Leach	
890-3929-10	CS41	Soluble	Solid	DI Leach	
MB 880-44793/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44793/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44793/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3929-1 MS	CS32	Soluble	Solid	DI Leach	
890-3929-1 MSD	CS32	Soluble	Solid	DI Leach	

Analysis Batch: 45036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3929-1	CS32	Soluble	Solid	300.0	44793
890-3929-2	CS33	Soluble	Solid	300.0	44793
890-3929-3	CS34	Soluble	Solid	300.0	44793
890-3929-4	CS35	Soluble	Solid	300.0	44793
890-3929-5	CS36	Soluble	Solid	300.0	44793
890-3929-6	CS37	Soluble	Solid	300.0	44793
890-3929-7	CS38	Soluble	Solid	300.0	44793
890-3929-8	CS39	Soluble	Solid	300.0	44793
890-3929-9	CS40	Soluble	Solid	300.0	44793
890-3929-10	CS41	Soluble	Solid	300.0	44793
MB 880-44793/1-A	Method Blank	Soluble	Solid	300.0	44793
LCS 880-44793/2-A	Lab Control Sample	Soluble	Solid	300.0	44793
LCSD 880-44793/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44793
890-3929-1 MS	CS32	Soluble	Solid	300.0	44793
890-3929-1 MSD	CS32	Soluble	Solid	300.0	44793

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS32**Lab Sample ID: 890-3929-1****Date Collected: 01/19/23 14:20****Matrix: Solid****Date Received: 01/23/23 16:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 08:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/04/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45212	02/01/23 14:44	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45299	02/04/23 05:02	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 21:30	CH	EET MID

Client Sample ID: CS33**Lab Sample ID: 890-3929-2****Date Collected: 01/20/23 09:20****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 08:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 02:01	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 21:48	CH	EET MID

Client Sample ID: CS34**Lab Sample ID: 890-3929-3****Date Collected: 01/20/23 09:25****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 08:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 02:22	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 21:54	CH	EET MID

Client Sample ID: CS35**Lab Sample ID: 890-3929-4****Date Collected: 01/20/23 09:30****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 09:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS35**Lab Sample ID: 890-3929-4****Date Collected: 01/20/23 09:30****Matrix: Solid****Date Received: 01/23/23 16:24**

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			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 02:44	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 22:01	CH	EET MID

Client Sample ID: CS36**Lab Sample ID: 890-3929-5****Date Collected: 01/20/23 09:35****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 09:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 03:05	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 22:07	CH	EET MID

Client Sample ID: CS37**Lab Sample ID: 890-3929-6****Date Collected: 01/20/23 09:40****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 10:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 03:27	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 22:25	CH	EET MID

Client Sample ID: CS38**Lab Sample ID: 890-3929-7****Date Collected: 01/20/23 09:55****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 10:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 03:48	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Client Sample ID: CS38**Lab Sample ID: 890-3929-7****Date Collected: 01/20/23 09:55****Matrix: Solid****Date Received: 01/23/23 16:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 22:31	CH	EET MID

Client Sample ID: CS39**Lab Sample ID: 890-3929-8****Date Collected: 01/20/23 10:15****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 10:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 04:10	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 22:37	CH	EET MID

Client Sample ID: CS40**Lab Sample ID: 890-3929-9****Date Collected: 01/20/23 10:20****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 11:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 04:31	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 22:44	CH	EET MID

Client Sample ID: CS41**Lab Sample ID: 890-3929-10****Date Collected: 01/20/23 10:25****Matrix: Solid****Date Received: 01/23/23 16:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 11:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45221	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45462	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45268	02/02/23 13:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/05/23 04:53	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 22:50	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

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Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3929-1
SDG: 03D2057048

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	EPA	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
- EPA = US Environmental Protection Agency
- 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: 890-3929-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3929-1	CS32	Solid	01/19/23 14:20	01/23/23 16:24	2'
890-3929-2	CS33	Solid	01/20/23 09:20	01/23/23 16:24	2'
890-3929-3	CS34	Solid	01/20/23 09:25	01/23/23 16:24	2'
890-3929-4	CS35	Solid	01/20/23 09:30	01/23/23 16:24	2'
890-3929-5	CS36	Solid	01/20/23 09:35	01/23/23 16:24	2'
890-3929-6	CS37	Solid	01/20/23 09:40	01/23/23 16:24	2'
890-3929-7	CS38	Solid	01/20/23 09:55	01/23/23 16:24	2'
890-3929-8	CS39	Solid	01/20/23 10:15	01/23/23 16:24	1.5'
890-3929-9	CS40	Solid	01/20/23 10:20	01/23/23 16:24	1.5'
890-3929-10	CS41	Solid	01/20/23 10:25	01/23/23 16:24	1.5'



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

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

Project Name:		Leamex 018		Turn Around		Pres. Code		ANALYSIS REQUEST												Preservative Codes		
Project Number:		03D2057048		☒ Routine ☐ Rush																None: NO DI Water: H ₂ O		
Project Location:		Lea County, NM		Due Date:																Cool: Cool MeOH: Me		
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm																HCL: HC HNO ₃ : HN		
PO #:																				H ₂ SO ₄ : H ₂ NaOH: Na		
SAMPLE RECEIPT		Temp Blank: ☒ Yes ☐ No		Wet Ice: ☒ Yes ☐ No																H ₃ PO ₄ : HP		
Samples Received Intact:		☒ Yes ☐ No		Thermometer ID:		Tm 600														NaHSO ₄ : NABIS		
Cooler Custody Seals:		☒ Yes ☐ No N/A		Correction Factor:		-0.2														Na ₂ S ₂ O ₃ : NaSO ₃		
Sample Custody Seals:		☒ Yes ☐ No N/A		Temperature Reading:		2.2														Zn Acetate+NaOH: Zn		
Total Containers:				Corrected Temperature:		2.0														NaOH+Ascorbic Acid: SAPC		
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)											Sample Comments	
CS32		S	1/19/2023	14:20	2'	Comp	1	x	x	x												
CS33		S	1/20/2023	9:20	2'	Comp	1	x	x	x												
CS34		S	1/20/2023	9:25	2'	Comp	1	x	x	x												
CS35		S	1/20/2023	9:30	2'	Comp	1	x	x	x												
CS36		S	1/20/2023	9:35	2'	Comp	1	x	x	x												
CS37		S	1/20/2023	9:40	2'	Comp	1	x	x	x												
CS38		S	1/20/2023	9:55	2'	Comp	1	x	x	x												
CS39		S	1/20/2023	10:15	1.5'	Comp	1	x	x	x												
CS40		S	1/20/2023	10:20	1.5'	Comp	1	x	x	x												
CS41		S	1/20/2023	10:25	1.5'	Comp	1	x	x	x												

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti 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 <i>[Signature]</i>	<i>[Signature]</i>	1-23-23 1624			
3					
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3929-1

SDG Number: 03D2057048

Login Number: 3929

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: 890-3929-1

SDG Number: 03D2057048

Login Number: 3929

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/25/23 12:13 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	



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 2/5/2023 9:30:22 AM

JOB DESCRIPTION

Leamex 018
SDG NUMBER 03D2057048

JOB NUMBER

890-3930-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
2/5/2023 9:30:22 AM

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: 890-3930-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	16
Lab Chronicle	19
Certification Summary	21
Method Summary	22
Sample Summary	23
Chain of Custody	24
Receipt Checklists	25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Qualifiers

GC VOA

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

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.
α	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: 890-3930-1
SDG: 03D2057048

Job ID: 890-3930-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3930-1****Receipt**

The samples were received on 1/23/2023 4:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: CS52 (890-3930-1), SW01 (890-3930-2), SW02 (890-3930-3), SW03 (890-3930-4), SW04 (890-3930-5) and SW05 (890-3930-6).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45275 and analytical batch 880-45439 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.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3930-A-1-F MS) and (890-3930-A-1-G MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Client Sample ID: CS52

Lab Sample ID: 890-3930-1

Date Collected: 01/20/23 14:00

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1.5'

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		02/02/23 13:52	02/02/23 23:32	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/02/23 13:52	02/02/23 23:32	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/02/23 13:52	02/02/23 23:32	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/02/23 13:52	02/02/23 23:32	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/02/23 13:52	02/02/23 23:32	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/02/23 13:52	02/02/23 23:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	02/02/23 13:52	02/02/23 23:32	1
1,4-Difluorobenzene (Surr)	108		70 - 130	02/02/23 13:52	02/02/23 23:32	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			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	138		50.0	mg/Kg			02/05/23 09:57	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 F1 F2	50.0	mg/Kg		02/02/23 14:55	02/04/23 21:30	1
Diesel Range Organics (Over C10-C28)	138		50.0	mg/Kg		02/02/23 14:55	02/04/23 21:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/02/23 14:55	02/04/23 21:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	02/02/23 14:55	02/04/23 21:30	1
o-Terphenyl	87		70 - 130	02/02/23 14:55	02/04/23 21:30	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.1		4.97	mg/Kg			01/29/23 22:56	1

Client Sample ID: SW01

Lab Sample ID: 890-3930-2

Date Collected: 01/20/23 11:05

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 0-2'

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		02/02/23 13:52	02/02/23 23:53	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/23 13:52	02/02/23 23:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/23 13:52	02/02/23 23:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/02/23 13:52	02/02/23 23:53	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/23 13:52	02/02/23 23:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/02/23 13:52	02/02/23 23:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	02/02/23 13:52	02/02/23 23:53	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Client Sample ID: SW01

Lab Sample ID: 890-3930-2

Date Collected: 01/20/23 11:05

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 0-2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	109		70 - 130	02/02/23 13:52	02/02/23 23:53	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			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	400		49.9	mg/Kg			02/05/23 09:57	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		02/02/23 14:55	02/04/23 23:32	1
Diesel Range Organics (Over C10-C28)	318		49.9	mg/Kg		02/02/23 14:55	02/04/23 23:32	1
Oil Range Organics (Over C28-C36)	82.2		49.9	mg/Kg		02/02/23 14:55	02/04/23 23:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			02/02/23 14:55	02/04/23 23:32	1
o-Terphenyl	96		70 - 130			02/02/23 14:55	02/04/23 23:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.8		5.05	mg/Kg			01/29/23 23:14	1

Client Sample ID: SW02

Lab Sample ID: 890-3930-3

Date Collected: 01/20/23 11:10

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 0-2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/03/23 00:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/03/23 00:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/03/23 00:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/02/23 13:52	02/03/23 00:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/03/23 00:14	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/02/23 13:52	02/03/23 00:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			02/02/23 13:52	02/03/23 00:14	1
1,4-Difluorobenzene (Surr)	106		70 - 130			02/02/23 13:52	02/03/23 00:14	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			02/03/23 08:57	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Client Sample ID: SW02

Lab Sample ID: 890-3930-3

Date Collected: 01/20/23 11:10

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 0-2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	382		50.0	mg/Kg			02/05/23 09:57	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		02/02/23 14:55	02/04/23 23:52	1
Diesel Range Organics (Over C10-C28)	313		50.0	mg/Kg		02/02/23 14:55	02/04/23 23:52	1
Oil Range Organics (Over C28-C36)	69.4		50.0	mg/Kg		02/02/23 14:55	02/04/23 23:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			02/02/23 14:55	02/04/23 23:52	1
o-Terphenyl	88		70 - 130			02/02/23 14:55	02/04/23 23:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.5		4.96	mg/Kg			01/29/23 23:21	1

Client Sample ID: SW03

Lab Sample ID: 890-3930-4

Date Collected: 01/20/23 11:15

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 0-2'

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		02/02/23 13:52	02/03/23 00:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/23 13:52	02/03/23 00:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/23 13:52	02/03/23 00:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/02/23 13:52	02/03/23 00:34	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/23 13:52	02/03/23 00:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/02/23 13:52	02/03/23 00:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			02/02/23 13:52	02/03/23 00:34	1
1,4-Difluorobenzene (Surr)	105		70 - 130			02/02/23 13:52	02/03/23 00:34	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			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	243		50.0	mg/Kg			02/05/23 09:57	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		02/02/23 14:55	02/05/23 00:13	1
Diesel Range Organics (Over C10-C28)	243		50.0	mg/Kg		02/02/23 14:55	02/05/23 00:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/02/23 14:55	02/05/23 00:13	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Client Sample ID: SW03

Lab Sample ID: 890-3930-4

Date Collected: 01/20/23 11:15

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 0-2'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	02/02/23 14:55	02/05/23 00:13	1
o-Terphenyl	89		70 - 130	02/02/23 14:55	02/05/23 00:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.5		5.02	mg/Kg			01/29/23 23:39	1

Client Sample ID: SW04

Lab Sample ID: 890-3930-5

Date Collected: 01/20/23 11:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 0-2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/03/23 00:55	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/03/23 00:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/03/23 00:55	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/02/23 13:52	02/03/23 00:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/03/23 00:55	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/02/23 13:52	02/03/23 00:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	02/02/23 13:52	02/03/23 00:55	1
1,4-Difluorobenzene (Surr)	107		70 - 130	02/02/23 13:52	02/03/23 00:55	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			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	849		49.9	mg/Kg			02/05/23 09:57	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		02/02/23 14:55	02/04/23 23:11	1
Diesel Range Organics (Over C10-C28)	702		49.9	mg/Kg		02/02/23 14:55	02/04/23 23:11	1
Oil Range Organics (Over C28-C36)	147		49.9	mg/Kg		02/02/23 14:55	02/04/23 23:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	02/02/23 14:55	02/04/23 23:11	1
o-Terphenyl	96		70 - 130	02/02/23 14:55	02/04/23 23:11	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.46		4.99	mg/Kg			01/29/23 23:45	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Client Sample ID: SW05

Lab Sample ID: 890-3930-6

Date Collected: 01/20/23 14:05

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 0-2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/02/23 13:52	02/03/23 01:16	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/02/23 13:52	02/03/23 01:16	1
Ethylbenzene	0.00534		0.00202	mg/Kg		02/02/23 13:52	02/03/23 01:16	1
m-Xylene & p-Xylene	0.00596		0.00403	mg/Kg		02/02/23 13:52	02/03/23 01:16	1
o-Xylene	0.0314		0.00202	mg/Kg		02/02/23 13:52	02/03/23 01:16	1
Xylenes, Total	0.0374		0.00403	mg/Kg		02/02/23 13:52	02/03/23 01:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			02/02/23 13:52	02/03/23 01:16	1
1,4-Difluorobenzene (Surr)	97		70 - 130			02/02/23 13:52	02/03/23 01:16	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0427		0.00403	mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1190		49.9	mg/Kg			02/05/23 09:57	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		02/02/23 14:55	02/04/23 22:51	1
Diesel Range Organics (Over C10-C28)	973		49.9	mg/Kg		02/02/23 14:55	02/04/23 22:51	1
Oil Range Organics (Over C28-C36)	215		49.9	mg/Kg		02/02/23 14:55	02/04/23 22:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130			02/02/23 14:55	02/04/23 22:51	1
o-Terphenyl	80		70 - 130			02/02/23 14:55	02/04/23 22:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.9		4.95	mg/Kg			01/29/23 23:52	1

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Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

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)
890-3925-A-1-D MS	Matrix Spike	102	103
890-3925-A-1-E MSD	Matrix Spike Duplicate	102	98
890-3930-1	CS52	119	108
890-3930-2	SW01	113	109
890-3930-3	SW02	109	106
890-3930-4	SW03	114	105
890-3930-5	SW04	114	107
890-3930-6	SW05	100	97
LCS 880-45269/1-A	Lab Control Sample	101	92
LCSD 880-45269/2-A	Lab Control Sample Dup	95	102
MB 880-45239/5-A	Method Blank	89	92
MB 880-45269/5-A	Method Blank	91	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3930-1	CS52	81	87
890-3930-1 MS	CS52	11 S1-	12 S1-
890-3930-1 MSD	CS52	10 S1-	10 S1-
890-3930-2	SW01	91	96
890-3930-3	SW02	83	88
890-3930-4	SW03	84	89
890-3930-5	SW04	90	96
890-3930-6	SW05	77	80
LCS 880-45275/2-A	Lab Control Sample	74	78
LCSD 880-45275/3-A	Lab Control Sample Dup	82	85
MB 880-45275/1-A	Method Blank	87	95
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45239/5-A

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45239

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:32	02/02/23 11:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/02/23 09:32	02/02/23 11:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:32	02/02/23 11:44	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/02/23 09:32	02/02/23 11:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	02/02/23 09:32	02/02/23 11:44	1
1,4-Difluorobenzene (Surr)	92		70 - 130	02/02/23 09:32	02/02/23 11:44	1

Lab Sample ID: MB 880-45269/5-A

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45269

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/02/23 22:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/02/23 13:52	02/02/23 22:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 13:52	02/02/23 22:29	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/02/23 13:52	02/02/23 22:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	02/02/23 13:52	02/02/23 22:29	1
1,4-Difluorobenzene (Surr)	88		70 - 130	02/02/23 13:52	02/02/23 22:29	1

Lab Sample ID: LCS 880-45269/1-A

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45269

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09657		mg/Kg		97	70 - 130
Toluene	0.100	0.09290		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.08916		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1874		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09608		mg/Kg		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-45269/2-A

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45269

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09768		mg/Kg		98	70 - 130	1	35

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

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

Lab Sample ID: LCSD 880-45269/2-A

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45269

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.09199		mg/Kg		92	70 - 130	1	35
Ethylbenzene	0.100	0.08490		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1762		mg/Kg		88	70 - 130	6	35
o-Xylene	0.100	0.08972		mg/Kg		90	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-3925-A-1-D MS

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45269

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.1089		mg/Kg		109	70 - 130
Toluene	<0.00201	U	0.100	0.09892		mg/Kg		99	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.09440		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1956		mg/Kg		98	70 - 130
o-Xylene	<0.00201	U	0.100	0.09982		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-3925-A-1-E MSD

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45269

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	0.1011		mg/Kg		102	70 - 130	7	35
Toluene	<0.00201	U	0.0990	0.09416		mg/Kg		95	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.09146		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1915		mg/Kg		97	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.09783		mg/Kg		99	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-45275/1-A

Matrix: Solid

Analysis Batch: 45439

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45275

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/02/23 14:55	02/04/23 20:30	1

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

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

Lab Sample ID: MB 880-45275/1-A

Matrix: Solid

Analysis Batch: 45439

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45275

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/02/23 14:55	02/04/23 20:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 14:55	02/04/23 20:30	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			02/02/23 14:55	02/04/23 20:30	1
o-Terphenyl	95		70 - 130			02/02/23 14:55	02/04/23 20:30	1

Lab Sample ID: LCS 880-45275/2-A

Matrix: Solid

Analysis Batch: 45439

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45275

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	746.0		mg/Kg		75	70 - 130
Diesel Range Organics (Over C10-C28)	999	837.9		mg/Kg		84	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	74		70 - 130				
o-Terphenyl	78		70 - 130				

Lab Sample ID: LCSD 880-45275/3-A

Matrix: Solid

Analysis Batch: 45439

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45275

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	825.6		mg/Kg		83	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	999	929.7		mg/Kg		93	70 - 130	10	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	82		70 - 130						
o-Terphenyl	85		70 - 130						

Lab Sample ID: 890-3930-1 MS

Matrix: Solid

Analysis Batch: 45439

Client Sample ID: CS52

Prep Type: Total/NA

Prep Batch: 45275

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 F1 F2	1000	1403	F1	mg/Kg		137	70 - 130
Diesel Range Organics (Over C10-C28)	138		1000	1195		mg/Kg		106	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	11	S1-	70 - 130						
o-Terphenyl	12	S1-	70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

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

Lab Sample ID: 890-3930-1 MSD

Matrix: Solid

Analysis Batch: 45439

Client Sample ID: CS52

Prep Type: Total/NA

Prep Batch: 45275

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 F1 F2	998	902.8	F2	mg/Kg		87	70 - 130	43	20
Diesel Range Organics (Over C10-C28)	138		998	1024		mg/Kg		89	70 - 130	15	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	10	S1-	70 - 130								
o-Terphenyl	10	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44793/1-A

Matrix: Solid

Analysis Batch: 45036

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			01/29/23 21:11	1

Lab Sample ID: LCS 880-44793/2-A

Matrix: Solid

Analysis Batch: 45036

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.5		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-44793/3-A

Matrix: Solid

Analysis Batch: 45036

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	255.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-3930-1 MS

Matrix: Solid

Analysis Batch: 45036

Client Sample ID: CS52

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	21.1		249	264.5		mg/Kg		98	90 - 110

Lab Sample ID: 890-3930-1 MSD

Matrix: Solid

Analysis Batch: 45036

Client Sample ID: CS52

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	21.1		249	264.5		mg/Kg		98	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

GC VOA

Analysis Batch: 45230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-1	CS52	Total/NA	Solid	8021B	45269
890-3930-2	SW01	Total/NA	Solid	8021B	45269
890-3930-3	SW02	Total/NA	Solid	8021B	45269
890-3930-4	SW03	Total/NA	Solid	8021B	45269
890-3930-5	SW04	Total/NA	Solid	8021B	45269
890-3930-6	SW05	Total/NA	Solid	8021B	45269
MB 880-45239/5-A	Method Blank	Total/NA	Solid	8021B	45239
MB 880-45269/5-A	Method Blank	Total/NA	Solid	8021B	45269
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	8021B	45269
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45269
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	45269
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45269

Prep Batch: 45239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45239/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-1	CS52	Total/NA	Solid	5035	
890-3930-2	SW01	Total/NA	Solid	5035	
890-3930-3	SW02	Total/NA	Solid	5035	
890-3930-4	SW03	Total/NA	Solid	5035	
890-3930-5	SW04	Total/NA	Solid	5035	
890-3930-6	SW05	Total/NA	Solid	5035	
MB 880-45269/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-1	CS52	Total/NA	Solid	Total BTEX	
890-3930-2	SW01	Total/NA	Solid	Total BTEX	
890-3930-3	SW02	Total/NA	Solid	Total BTEX	
890-3930-4	SW03	Total/NA	Solid	Total BTEX	
890-3930-5	SW04	Total/NA	Solid	Total BTEX	
890-3930-6	SW05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-1	CS52	Total/NA	Solid	8015NM Prep	
890-3930-2	SW01	Total/NA	Solid	8015NM Prep	
890-3930-3	SW02	Total/NA	Solid	8015NM Prep	
890-3930-4	SW03	Total/NA	Solid	8015NM Prep	
890-3930-5	SW04	Total/NA	Solid	8015NM Prep	
890-3930-6	SW05	Total/NA	Solid	8015NM Prep	
MB 880-45275/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

GC Semi VOA (Continued)

Prep Batch: 45275 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-45275/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45275/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3930-1 MS	CS52	Total/NA	Solid	8015NM Prep	
890-3930-1 MSD	CS52	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-1	CS52	Total/NA	Solid	8015B NM	45275
890-3930-2	SW01	Total/NA	Solid	8015B NM	45275
890-3930-3	SW02	Total/NA	Solid	8015B NM	45275
890-3930-4	SW03	Total/NA	Solid	8015B NM	45275
890-3930-5	SW04	Total/NA	Solid	8015B NM	45275
890-3930-6	SW05	Total/NA	Solid	8015B NM	45275
MB 880-45275/1-A	Method Blank	Total/NA	Solid	8015B NM	45275
LCS 880-45275/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45275
LCSD 880-45275/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45275
890-3930-1 MS	CS52	Total/NA	Solid	8015B NM	45275
890-3930-1 MSD	CS52	Total/NA	Solid	8015B NM	45275

Analysis Batch: 45519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-1	CS52	Total/NA	Solid	8015 NM	
890-3930-2	SW01	Total/NA	Solid	8015 NM	
890-3930-3	SW02	Total/NA	Solid	8015 NM	
890-3930-4	SW03	Total/NA	Solid	8015 NM	
890-3930-5	SW04	Total/NA	Solid	8015 NM	
890-3930-6	SW05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-1	CS52	Soluble	Solid	DI Leach	
890-3930-2	SW01	Soluble	Solid	DI Leach	
890-3930-3	SW02	Soluble	Solid	DI Leach	
890-3930-4	SW03	Soluble	Solid	DI Leach	
890-3930-5	SW04	Soluble	Solid	DI Leach	
890-3930-6	SW05	Soluble	Solid	DI Leach	
MB 880-44793/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44793/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44793/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3930-1 MS	CS52	Soluble	Solid	DI Leach	
890-3930-1 MSD	CS52	Soluble	Solid	DI Leach	

Analysis Batch: 45036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-1	CS52	Soluble	Solid	300.0	44793
890-3930-2	SW01	Soluble	Solid	300.0	44793
890-3930-3	SW02	Soluble	Solid	300.0	44793
890-3930-4	SW03	Soluble	Solid	300.0	44793
890-3930-5	SW04	Soluble	Solid	300.0	44793

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

HPLC/IC (Continued)

Analysis Batch: 45036 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3930-6	SW05	Soluble	Solid	300.0	44793
MB 880-44793/1-A	Method Blank	Soluble	Solid	300.0	44793
LCS 880-44793/2-A	Lab Control Sample	Soluble	Solid	300.0	44793
LCSD 880-44793/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44793
890-3930-1 MS	CS52	Soluble	Solid	300.0	44793
890-3930-1 MSD	CS52	Soluble	Solid	300.0	44793

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Client Sample ID: CS52

Lab Sample ID: 890-3930-1

Date Collected: 01/20/23 14:00

Matrix: Solid

Date Received: 01/23/23 16:24

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	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/02/23 23:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45314	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45519	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/04/23 21:30	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 22:56	CH	EET MID

Client Sample ID: SW01

Lab Sample ID: 890-3930-2

Date Collected: 01/20/23 11:05

Matrix: Solid

Date Received: 01/23/23 16:24

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	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/02/23 23:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45314	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45519	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/04/23 23:32	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 23:14	CH	EET MID

Client Sample ID: SW02

Lab Sample ID: 890-3930-3

Date Collected: 01/20/23 11:10

Matrix: Solid

Date Received: 01/23/23 16:24

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	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 00:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45314	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45519	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/04/23 23:52	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 23:21	CH	EET MID

Client Sample ID: SW03

Lab Sample ID: 890-3930-4

Date Collected: 01/20/23 11:15

Matrix: Solid

Date Received: 01/23/23 16:24

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	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 00:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45314	02/03/23 08:57	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Client Sample ID: SW03

Lab Sample ID: 890-3930-4

Date Collected: 01/20/23 11:15

Matrix: Solid

Date Received: 01/23/23 16:24

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			45519	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/05/23 00:13	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 23:39	CH	EET MID

Client Sample ID: SW04

Lab Sample ID: 890-3930-5

Date Collected: 01/20/23 11:20

Matrix: Solid

Date Received: 01/23/23 16:24

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	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 00:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45314	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45519	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/04/23 23:11	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 23:45	CH	EET MID

Client Sample ID: SW05

Lab Sample ID: 890-3930-6

Date Collected: 01/20/23 14:05

Matrix: Solid

Date Received: 01/23/23 16:24

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	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 01:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45314	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45519	02/05/23 09:57	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45275	02/02/23 14:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45439	02/04/23 22:51	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 23:52	CH	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3930-1
SDG: 03D2057048

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	EPA	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

EPA = US Environmental Protection Agency

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: 890-3930-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3930-1	CS52	Solid	01/20/23 14:00	01/23/23 16:24	1.5'
890-3930-2	SW01	Solid	01/20/23 11:05	01/23/23 16:24	0-2'
890-3930-3	SW02	Solid	01/20/23 11:10	01/23/23 16:24	0-2'
890-3930-4	SW03	Solid	01/20/23 11:15	01/23/23 16:24	0-2'
890-3930-5	SW04	Solid	01/20/23 11:20	01/23/23 16:24	0-2'
890-3930-6	SW05	Solid	01/20/23 14:05	01/23/23 16:24	0-2'



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

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

Project Name:		Leamex 018		Turn Around		ANALYSIS REQUEST										Preservative Codes		
Project Number:	03D2057048	☒ Routine	☐ Rush	Pres. Code												None: NO	DI Water: H ₂ O	
Project Location:	Lea County, NM	Due Date:		Parameters	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)									Cool: Cool	MeOH: Me	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm														HCL: HC	HNO ₃ : HN	
PO #:																H ₂ SO ₄ : H ₂	NaOH: Na	
																H ₃ PO ₄ : HP		
SAMPLE RECEIPT		Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No											NaHSO ₄ : NABIS		
Samples Received Intact:	☒ Yes ☐ No	Thermometer ID:													Na ₂ S ₂ O ₃ : NaSO ₃			
Cooler Custody Seals:	Yes ☐ No ☒ N/A	Correction Factor:													Zn Acetate+NaOH: Zn			
Sample Custody Seals:	Yes ☐ No ☒ N/A	Temperature Reading:													NaOH+Ascorbic Acid: SAPC			
Total Containers:		Corrected Temperature:																
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont											Sample Comments	
CS52	S	1/20/2023	14:00	1.5'	Comp	1	x	x	x									
SW01	S	1/20/2023	11:05	0'-2'	Comp	1	x	x	x									
SW02	S	1/20/2023	11:10	0'-2'	Comp	1	x	x	x									
SW03	S	1/20/2023	11:15	0'-2'	Comp	1	x	x	x									
SW04	S	1/20/2023	11:20	0'-2'	Comp	1	x	x	x									
SW05	S	1/20/2023	14:05	0'-2'	Comp	1	x	x	x									
Incident Number																		

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	Ti	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	Ti	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		1-23-23 1634			
3					
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3930-1

SDG Number: 03D2057048

Login Number: 3930

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: 890-3930-1

SDG Number: 03D2057048

Login Number: 3930

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/25/23 12:13 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	



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 2/5/2023 9:30:54 AM

JOB DESCRIPTION

Leamex 018
SDG NUMBER 03D2057048

JOB NUMBER

890-3931-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
2/5/2023 9:30:54 AM

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: 890-3931-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	19
Lab Chronicle	22
Certification Summary	26
Method Summary	27
Sample Summary	28
Chain of Custody	29
Receipt Checklists	30

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: 890-3931-1
SDG: 03D2057048

Job ID: 890-3931-1

Laboratory: Eurofins Carlsbad

Narrative	
Job Narrative 890-3931-1	

Receipt

The samples were received on 1/23/2023 4:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: CS22 (890-3931-1), CS23 (890-3931-2), CS24 (890-3931-3), CS25 (890-3931-4), CS26 (890-3931-5), CS27 (890-3931-6), CS28 (890-3931-7), CS29 (890-3931-8), CS30 (890-3931-9) and CS31 (890-3931-10).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS22

Lab Sample ID: 890-3931-1

Date Collected: 01/19/23 11:55

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/31/23 14:51	02/01/23 03:46	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 03:46	1
Ethylbenzene	<0.00202	U F1	0.00202	mg/Kg		01/31/23 14:51	02/01/23 03:46	1
m-Xylene & p-Xylene	<0.00403	U F1	0.00403	mg/Kg		01/31/23 14:51	02/01/23 03:46	1
o-Xylene	<0.00202	U F1	0.00202	mg/Kg		01/31/23 14:51	02/01/23 03:46	1
Xylenes, Total	<0.00403	U F1	0.00403	mg/Kg		01/31/23 14:51	02/01/23 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	01/31/23 14:51	02/01/23 03:46	1
1,4-Difluorobenzene (Surr)	112		70 - 130	01/31/23 14:51	02/01/23 03:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/01/23 16:55	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			02/05/23 09:15	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		02/01/23 15:25	02/03/23 21:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 15:25	02/03/23 21:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 15:25	02/03/23 21:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	02/01/23 15:25	02/03/23 21:04	1
o-Terphenyl	115		70 - 130	02/01/23 15:25	02/03/23 21:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.30		4.98	mg/Kg			01/30/23 01:06	1

Client Sample ID: CS23

Lab Sample ID: 890-3931-2

Date Collected: 01/19/23 12:00

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 04:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 04:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 04:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/31/23 14:51	02/01/23 04:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 04:07	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/31/23 14:51	02/01/23 04:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	01/31/23 14:51	02/01/23 04:07	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS23

Lab Sample ID: 890-3931-2

Date Collected: 01/19/23 12:00

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	01/31/23 14:51	02/01/23 04:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/01/23 16:55	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			02/05/23 09:15	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		02/01/23 15:25	02/03/23 22:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 22:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 22:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			02/01/23 15:25	02/03/23 22:09	1
o-Terphenyl	125		70 - 130			02/01/23 15:25	02/03/23 22:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.90		5.00	mg/Kg			01/30/23 01:24	1

Client Sample ID: CS24

Lab Sample ID: 890-3931-3

Date Collected: 01/19/23 12:05

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/31/23 14:51	02/01/23 04:28	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 04:28	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 04:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/31/23 14:51	02/01/23 04:28	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:51	02/01/23 04:28	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/31/23 14:51	02/01/23 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	01/31/23 14:51	02/01/23 04:28	1
1,4-Difluorobenzene (Surr)	119		70 - 130	01/31/23 14:51	02/01/23 04:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	95.8		50.0	mg/Kg			02/05/23 09:15	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS24

Lab Sample ID: 890-3931-3

Date Collected: 01/19/23 12:05

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 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		02/01/23 15:25	02/03/23 22:30	1
Diesel Range Organics (Over C10-C28)	95.8		50.0	mg/Kg		02/01/23 15:25	02/03/23 22:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 15:25	02/03/23 22:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			02/01/23 15:25	02/03/23 22:30	1
o-Terphenyl	118		70 - 130			02/01/23 15:25	02/03/23 22:30	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.9		4.99	mg/Kg			01/30/23 01:30	1

Client Sample ID: CS25

Lab Sample ID: 890-3931-4

Date Collected: 01/19/23 13:15

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 04:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 04:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 04:49	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/31/23 14:51	02/01/23 04:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 04:49	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/31/23 14:51	02/01/23 04:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			01/31/23 14:51	02/01/23 04:49	1
1,4-Difluorobenzene (Surr)	112		70 - 130			01/31/23 14:51	02/01/23 04:49	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/01/23 16:55	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			02/05/23 09:15	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		02/01/23 15:25	02/03/23 22:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 15:25	02/03/23 22:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 15:25	02/03/23 22:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			02/01/23 15:25	02/03/23 22:51	1
o-Terphenyl	124		70 - 130			02/01/23 15:25	02/03/23 22:51	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS25

Lab Sample ID: 890-3931-4

Date Collected: 01/19/23 13:15

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.5		4.95	mg/Kg			01/30/23 01:37	1

Client Sample ID: CS26

Lab Sample ID: 890-3931-5

Date Collected: 01/19/23 13:45

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 05:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 05:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 05:09	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/31/23 14:51	02/01/23 05:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 05:09	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/31/23 14:51	02/01/23 05:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			01/31/23 14:51	02/01/23 05:09	1
1,4-Difluorobenzene (Surr)	120		70 - 130			01/31/23 14:51	02/01/23 05:09	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			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	189		49.9	mg/Kg			02/05/23 09:15	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		02/01/23 15:25	02/03/23 23:13	1
Diesel Range Organics (Over C10-C28)	189		49.9	mg/Kg		02/01/23 15:25	02/03/23 23:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 23:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			02/01/23 15:25	02/03/23 23:13	1
o-Terphenyl	124		70 - 130			02/01/23 15:25	02/03/23 23:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/30/23 01:43	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS27

Lab Sample ID: 890-3931-6

Date Collected: 01/19/23 13:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/31/23 14:51	02/01/23 05:30	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 05:30	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 05:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/31/23 14:51	02/01/23 05:30	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 05:30	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/31/23 14:51	02/01/23 05:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	01/31/23 14:51	02/01/23 05:30	1
1,4-Difluorobenzene (Surr)	108		70 - 130	01/31/23 14:51	02/01/23 05:30	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			02/01/23 16:55	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			02/05/23 09:15	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		02/01/23 15:25	02/03/23 23:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 23:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 23:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	02/01/23 15:25	02/03/23 23:34	1
o-Terphenyl	122		70 - 130	02/01/23 15:25	02/03/23 23:34	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.7		4.97	mg/Kg			01/30/23 02:01	1

Client Sample ID: CS28

Lab Sample ID: 890-3931-7

Date Collected: 01/19/23 13:25

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/31/23 14:51	02/01/23 05:51	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 05:51	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 05:51	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		01/31/23 14:51	02/01/23 05:51	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/31/23 14:51	02/01/23 05:51	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		01/31/23 14:51	02/01/23 05:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/31/23 14:51	02/01/23 05:51	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS28

Lab Sample ID: 890-3931-7

Date Collected: 01/19/23 13:25

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	01/31/23 14:51	02/01/23 05:51	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			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	148		49.9	mg/Kg			02/05/23 09:15	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		02/01/23 15:25	02/03/23 23:56	1
Diesel Range Organics (Over C10-C28)	148		49.9	mg/Kg		02/01/23 15:25	02/03/23 23:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 23:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			02/01/23 15:25	02/03/23 23:56	1
o-Terphenyl	118		70 - 130			02/01/23 15:25	02/03/23 23:56	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.7		4.99	mg/Kg			01/30/23 02:07	1

Client Sample ID: CS29

Lab Sample ID: 890-3931-8

Date Collected: 01/19/23 13:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 06:12	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 06:12	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 06:12	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		01/31/23 14:51	02/01/23 06:12	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/31/23 14:51	02/01/23 06:12	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		01/31/23 14:51	02/01/23 06:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	01/31/23 14:51	02/01/23 06:12	1
1,4-Difluorobenzene (Surr)	115		70 - 130	01/31/23 14:51	02/01/23 06:12	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			02/01/23 16:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	151		49.9	mg/Kg			02/05/23 09:15	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS29

Lab Sample ID: 890-3931-8

Date Collected: 01/19/23 13:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		02/01/23 15:25	02/04/23 00:18	1
Diesel Range Organics (Over C10-C28)	151		49.9	mg/Kg		02/01/23 15:25	02/04/23 00:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 00:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			02/01/23 15:25	02/04/23 00:18	1
o-Terphenyl	124		70 - 130			02/01/23 15:25	02/04/23 00:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.6		5.02	mg/Kg			01/30/23 02:13	1

Client Sample ID: CS30

Lab Sample ID: 890-3931-9

Date Collected: 01/19/23 13:40

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/31/23 14:51	02/01/23 06:32	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 06:32	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 06:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/31/23 14:51	02/01/23 06:32	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 06:32	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/31/23 14:51	02/01/23 06:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			01/31/23 14:51	02/01/23 06:32	1
1,4-Difluorobenzene (Surr)	95		70 - 130			01/31/23 14:51	02/01/23 06:32	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			02/01/23 16:55	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			02/05/23 09:15	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		02/01/23 15:25	02/04/23 00:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 00:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 00:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			02/01/23 15:25	02/04/23 00:40	1
o-Terphenyl	111		70 - 130			02/01/23 15:25	02/04/23 00:40	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS30

Lab Sample ID: 890-3931-9

Date Collected: 01/19/23 13:40

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.8		4.95	mg/Kg			01/30/23 02:20	1

Client Sample ID: CS31

Lab Sample ID: 890-3931-10

Date Collected: 01/19/23 13:50

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/31/23 14:51	02/01/23 06:53	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 06:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 06:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/31/23 14:51	02/01/23 06:53	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:51	02/01/23 06:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/31/23 14:51	02/01/23 06:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			01/31/23 14:51	02/01/23 06:53	1
1,4-Difluorobenzene (Surr)	110		70 - 130			01/31/23 14:51	02/01/23 06:53	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			02/01/23 16:55	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			02/05/23 09:15	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		02/01/23 15:25	02/04/23 01:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 15:25	02/04/23 01:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 15:25	02/04/23 01:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			02/01/23 15:25	02/04/23 01:02	1
o-Terphenyl	106		70 - 130			02/01/23 15:25	02/04/23 01:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.1		5.01	mg/Kg			01/30/23 02:26	1

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Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

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)
890-3931-1	CS22	97	112
890-3931-1 MS	CS22	101	109
890-3931-1 MSD	CS22	88	103
890-3931-2	CS23	94	88
890-3931-3	CS24	109	119
890-3931-4	CS25	108	112
890-3931-5	CS26	114	120
890-3931-6	CS27	100	108
890-3931-7	CS28	108	104
890-3931-8	CS29	109	115
890-3931-9	CS30	100	95
890-3931-10	CS31	115	110
LCS 880-45152/1-A	Lab Control Sample	85	101
LCSD 880-45152/2-A	Lab Control Sample Dup	84	103
MB 880-45055/5-A	Method Blank	89	90
MB 880-45152/5-A	Method Blank	78	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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3931-1	CS22	102	115
890-3931-1 MS	CS22	115	118
890-3931-1 MSD	CS22	117	120
890-3931-2	CS23	111	125
890-3931-3	CS24	110	118
890-3931-4	CS25	115	124
890-3931-5	CS26	114	124
890-3931-6	CS27	112	122
890-3931-7	CS28	110	118
890-3931-8	CS29	115	124
890-3931-9	CS30	104	111
890-3931-10	CS31	94	106
LCS 880-45215/2-A	Lab Control Sample	93	99
LCSD 880-45215/3-A	Lab Control Sample Dup	93	99
MB 880-45215/1-A	Method Blank	128	147 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45055/5-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45055

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/30/23 13:10	01/31/23 16:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/30/23 13:10	01/31/23 16:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	01/30/23 13:10	01/31/23 16:39	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/30/23 13:10	01/31/23 16:39	1

Lab Sample ID: MB 880-45152/5-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45152

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:51	02/01/23 03:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/31/23 14:51	02/01/23 03:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	01/31/23 14:51	02/01/23 03:25	1
1,4-Difluorobenzene (Surr)	94		70 - 130	01/31/23 14:51	02/01/23 03:25	1

Lab Sample ID: LCS 880-45152/1-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09313		mg/Kg		93	70 - 130
Toluene	0.100	0.08097		mg/Kg		81	70 - 130
Ethylbenzene	0.100	0.07141		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	0.200	0.1480		mg/Kg		74	70 - 130
o-Xylene	0.100	0.07618		mg/Kg		76	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-45152/2-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09913		mg/Kg		99	70 - 130	6	35

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

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

Lab Sample ID: LCSD 880-45152/2-A

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08615		mg/Kg		86	70 - 130	6	35
Ethylbenzene	0.100	0.07086		mg/Kg		71	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1504		mg/Kg		75	70 - 130	2	35
o-Xylene	0.100	0.07516		mg/Kg		75	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-3931-1 MS

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: CS22

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.1135		mg/Kg		113	70 - 130
Toluene	<0.00202	U	0.101	0.09881		mg/Kg		97	70 - 130
Ethylbenzene	<0.00202	U F1	0.101	0.07397		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.202	0.1533		mg/Kg		76	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.08450		mg/Kg		84	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 890-3931-1 MSD

Matrix: Solid

Analysis Batch: 45130

Client Sample ID: CS22

Prep Type: Total/NA

Prep Batch: 45152

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0996	0.09686		mg/Kg		97	70 - 130	16	35
Toluene	<0.00202	U	0.0996	0.08362		mg/Kg		83	70 - 130	17	35
Ethylbenzene	<0.00202	U F1	0.0996	0.06065	F1	mg/Kg		61	70 - 130	20	35
m-Xylene & p-Xylene	<0.00403	U F1	0.199	0.1274	F1	mg/Kg		64	70 - 130	18	35
o-Xylene	<0.00202	U F1	0.0996	0.06909	F1	mg/Kg		69	70 - 130	20	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

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

Lab Sample ID: MB 880-45215/1-A

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45215

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 19:59	1

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

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

Lab Sample ID: MB 880-45215/1-A

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45215

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 19:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 19:59	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130			02/01/23 15:25	02/03/23 19:59	1
o-Terphenyl	147	S1+	70 - 130			02/01/23 15:25	02/03/23 19:59	1

Lab Sample ID: LCS 880-45215/2-A

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45215

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	966.0		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	999	940.8		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	93		70 - 130				
o-Terphenyl	99		70 - 130				

Lab Sample ID: LCSD 880-45215/3-A

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45215

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	914.3		mg/Kg		92	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	999	920.1		mg/Kg		92	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	93		70 - 130						
o-Terphenyl	99		70 - 130						

Lab Sample ID: 890-3931-1 MS

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: CS22

Prep Type: Total/NA

Prep Batch: 45215

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	1000	996.6		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1146		mg/Kg		111	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	115		70 - 130						
o-Terphenyl	118		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

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

Lab Sample ID: 890-3931-1 MSD

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: CS22

Prep Type: Total/NA

Prep Batch: 45215

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	998	1008		mg/Kg		98	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1164		mg/Kg		113	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	117		70 - 130								
o-Terphenyl	120		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44794/1-A

Matrix: Solid

Analysis Batch: 45050

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			01/30/23 00:47	1

Lab Sample ID: LCS 880-44794/2-A

Matrix: Solid

Analysis Batch: 45050

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.6		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-44794/3-A

Matrix: Solid

Analysis Batch: 45050

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	256.9		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-3931-1 MS

Matrix: Solid

Analysis Batch: 45050

Client Sample ID: CS22

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	6.30		249	240.4		mg/Kg		94	90 - 110

Lab Sample ID: 890-3931-1 MSD

Matrix: Solid

Analysis Batch: 45050

Client Sample ID: CS22

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	6.30		249	240.8		mg/Kg		94	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

GC VOA

Prep Batch: 45055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45055/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 45130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3931-1	CS22	Total/NA	Solid	8021B	45152
890-3931-2	CS23	Total/NA	Solid	8021B	45152
890-3931-3	CS24	Total/NA	Solid	8021B	45152
890-3931-4	CS25	Total/NA	Solid	8021B	45152
890-3931-5	CS26	Total/NA	Solid	8021B	45152
890-3931-6	CS27	Total/NA	Solid	8021B	45152
890-3931-7	CS28	Total/NA	Solid	8021B	45152
890-3931-8	CS29	Total/NA	Solid	8021B	45152
890-3931-9	CS30	Total/NA	Solid	8021B	45152
890-3931-10	CS31	Total/NA	Solid	8021B	45152
MB 880-45055/5-A	Method Blank	Total/NA	Solid	8021B	45055
MB 880-45152/5-A	Method Blank	Total/NA	Solid	8021B	45152
LCS 880-45152/1-A	Lab Control Sample	Total/NA	Solid	8021B	45152
LCSD 880-45152/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45152
890-3931-1 MS	CS22	Total/NA	Solid	8021B	45152
890-3931-1 MSD	CS22	Total/NA	Solid	8021B	45152

Prep Batch: 45152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3931-1	CS22	Total/NA	Solid	5035	
890-3931-2	CS23	Total/NA	Solid	5035	
890-3931-3	CS24	Total/NA	Solid	5035	
890-3931-4	CS25	Total/NA	Solid	5035	
890-3931-5	CS26	Total/NA	Solid	5035	
890-3931-6	CS27	Total/NA	Solid	5035	
890-3931-7	CS28	Total/NA	Solid	5035	
890-3931-8	CS29	Total/NA	Solid	5035	
890-3931-9	CS30	Total/NA	Solid	5035	
890-3931-10	CS31	Total/NA	Solid	5035	
MB 880-45152/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45152/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45152/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3931-1 MS	CS22	Total/NA	Solid	5035	
890-3931-1 MSD	CS22	Total/NA	Solid	5035	

Analysis Batch: 45220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3931-1	CS22	Total/NA	Solid	Total BTEX	
890-3931-2	CS23	Total/NA	Solid	Total BTEX	
890-3931-3	CS24	Total/NA	Solid	Total BTEX	
890-3931-4	CS25	Total/NA	Solid	Total BTEX	
890-3931-5	CS26	Total/NA	Solid	Total BTEX	
890-3931-6	CS27	Total/NA	Solid	Total BTEX	
890-3931-7	CS28	Total/NA	Solid	Total BTEX	
890-3931-8	CS29	Total/NA	Solid	Total BTEX	
890-3931-9	CS30	Total/NA	Solid	Total BTEX	
890-3931-10	CS31	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

GC Semi VOA

Prep Batch: 45215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3931-1	CS22	Total/NA	Solid	8015NM Prep	
890-3931-2	CS23	Total/NA	Solid	8015NM Prep	
890-3931-3	CS24	Total/NA	Solid	8015NM Prep	
890-3931-4	CS25	Total/NA	Solid	8015NM Prep	
890-3931-5	CS26	Total/NA	Solid	8015NM Prep	
890-3931-6	CS27	Total/NA	Solid	8015NM Prep	
890-3931-7	CS28	Total/NA	Solid	8015NM Prep	
890-3931-8	CS29	Total/NA	Solid	8015NM Prep	
890-3931-9	CS30	Total/NA	Solid	8015NM Prep	
890-3931-10	CS31	Total/NA	Solid	8015NM Prep	
MB 880-45215/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45215/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45215/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3931-1 MS	CS22	Total/NA	Solid	8015NM Prep	
890-3931-1 MSD	CS22	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3931-1	CS22	Total/NA	Solid	8015B NM	45215
890-3931-2	CS23	Total/NA	Solid	8015B NM	45215
890-3931-3	CS24	Total/NA	Solid	8015B NM	45215
890-3931-4	CS25	Total/NA	Solid	8015B NM	45215
890-3931-5	CS26	Total/NA	Solid	8015B NM	45215
890-3931-6	CS27	Total/NA	Solid	8015B NM	45215
890-3931-7	CS28	Total/NA	Solid	8015B NM	45215
890-3931-8	CS29	Total/NA	Solid	8015B NM	45215
890-3931-9	CS30	Total/NA	Solid	8015B NM	45215
890-3931-10	CS31	Total/NA	Solid	8015B NM	45215
MB 880-45215/1-A	Method Blank	Total/NA	Solid	8015B NM	45215
LCS 880-45215/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45215
LCSD 880-45215/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45215
890-3931-1 MS	CS22	Total/NA	Solid	8015B NM	45215
890-3931-1 MSD	CS22	Total/NA	Solid	8015B NM	45215

Analysis Batch: 45487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3931-1	CS22	Total/NA	Solid	8015 NM	
890-3931-2	CS23	Total/NA	Solid	8015 NM	
890-3931-3	CS24	Total/NA	Solid	8015 NM	
890-3931-4	CS25	Total/NA	Solid	8015 NM	
890-3931-5	CS26	Total/NA	Solid	8015 NM	
890-3931-6	CS27	Total/NA	Solid	8015 NM	
890-3931-7	CS28	Total/NA	Solid	8015 NM	
890-3931-8	CS29	Total/NA	Solid	8015 NM	
890-3931-9	CS30	Total/NA	Solid	8015 NM	
890-3931-10	CS31	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

HPLC/IC

Leach Batch: 44794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3931-1	CS22	Soluble	Solid	DI Leach	
890-3931-2	CS23	Soluble	Solid	DI Leach	
890-3931-3	CS24	Soluble	Solid	DI Leach	
890-3931-4	CS25	Soluble	Solid	DI Leach	
890-3931-5	CS26	Soluble	Solid	DI Leach	
890-3931-6	CS27	Soluble	Solid	DI Leach	
890-3931-7	CS28	Soluble	Solid	DI Leach	
890-3931-8	CS29	Soluble	Solid	DI Leach	
890-3931-9	CS30	Soluble	Solid	DI Leach	
890-3931-10	CS31	Soluble	Solid	DI Leach	
MB 880-44794/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44794/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44794/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3931-1 MS	CS22	Soluble	Solid	DI Leach	
890-3931-1 MSD	CS22	Soluble	Solid	DI Leach	

Analysis Batch: 45050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3931-1	CS22	Soluble	Solid	300.0	44794
890-3931-2	CS23	Soluble	Solid	300.0	44794
890-3931-3	CS24	Soluble	Solid	300.0	44794
890-3931-4	CS25	Soluble	Solid	300.0	44794
890-3931-5	CS26	Soluble	Solid	300.0	44794
890-3931-6	CS27	Soluble	Solid	300.0	44794
890-3931-7	CS28	Soluble	Solid	300.0	44794
890-3931-8	CS29	Soluble	Solid	300.0	44794
890-3931-9	CS30	Soluble	Solid	300.0	44794
890-3931-10	CS31	Soluble	Solid	300.0	44794
MB 880-44794/1-A	Method Blank	Soluble	Solid	300.0	44794
LCS 880-44794/2-A	Lab Control Sample	Soluble	Solid	300.0	44794
LCSD 880-44794/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44794
890-3931-1 MS	CS22	Soluble	Solid	300.0	44794
890-3931-1 MSD	CS22	Soluble	Solid	300.0	44794

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS22
Date Collected: 01/19/23 11:55
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3931-1
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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 03:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 21:04	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 01:06	CH	EET MID

Client Sample ID: CS23
Date Collected: 01/19/23 12:00
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3931-2
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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 04:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 22:09	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 01:24	CH	EET MID

Client Sample ID: CS24
Date Collected: 01/19/23 12:05
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3931-3
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			4.97 g	5 mL	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 04:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 22:30	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 01:30	CH	EET MID

Client Sample ID: CS25
Date Collected: 01/19/23 13:15
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3931-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 04:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS25

Lab Sample ID: 890-3931-4

Date Collected: 01/19/23 13:15

Matrix: Solid

Date Received: 01/23/23 16:24

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			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 22:51	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 01:37	CH	EET MID

Client Sample ID: CS26

Lab Sample ID: 890-3931-5

Date Collected: 01/19/23 13:45

Matrix: Solid

Date Received: 01/23/23 16:24

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 05:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 23:13	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 01:43	CH	EET MID

Client Sample ID: CS27

Lab Sample ID: 890-3931-6

Date Collected: 01/19/23 13:20

Matrix: Solid

Date Received: 01/23/23 16:24

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 05:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 23:34	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 02:01	CH	EET MID

Client Sample ID: CS28

Lab Sample ID: 890-3931-7

Date Collected: 01/19/23 13:25

Matrix: Solid

Date Received: 01/23/23 16:24

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 05:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 23:56	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Client Sample ID: CS28**Lab Sample ID: 890-3931-7****Date Collected: 01/19/23 13:25****Matrix: Solid****Date Received: 01/23/23 16:24**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 02:07	CH	EET MID

Client Sample ID: CS29**Lab Sample ID: 890-3931-8****Date Collected: 01/19/23 13:30****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 06:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 00:18	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 02:13	CH	EET MID

Client Sample ID: CS30**Lab Sample ID: 890-3931-9****Date Collected: 01/19/23 13:40****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 06:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 00:40	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 02:20	CH	EET MID

Client Sample ID: CS31**Lab Sample ID: 890-3931-10****Date Collected: 01/19/23 13:50****Matrix: Solid****Date Received: 01/23/23 16:24**

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	45152	01/31/23 14:51	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45130	02/01/23 06:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45220	02/01/23 16:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45487	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 01:02	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 02:26	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

- 1
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Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3931-1
SDG: 03D2057048

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	EPA	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

EPA = US Environmental Protection Agency

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: 890-3931-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3931-1	CS22	Solid	01/19/23 11:55	01/23/23 16:24	1'
890-3931-2	CS23	Solid	01/19/23 12:00	01/23/23 16:24	1'
890-3931-3	CS24	Solid	01/19/23 12:05	01/23/23 16:24	1'
890-3931-4	CS25	Solid	01/19/23 13:15	01/23/23 16:24	2.5'
890-3931-5	CS26	Solid	01/19/23 13:45	01/23/23 16:24	2'
890-3931-6	CS27	Solid	01/19/23 13:20	01/23/23 16:24	2'
890-3931-7	CS28	Solid	01/19/23 13:25	01/23/23 16:24	2'
890-3931-8	CS29	Solid	01/19/23 13:30	01/23/23 16:24	2'
890-3931-9	CS30	Solid	01/19/23 13:40	01/23/23 16:24	2'
890-3931-10	CS31	Solid	01/19/23 13:50	01/23/23 16:24	2'



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

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

Project Name:		Leamex 018		Turn Around		Pres. Code		ANALYSIS REQUEST												Preservative Codes		
Project Number:		03D2057048		☒ Routine ☐ Rush																None: NO DI Water: H ₂ O		
Project Location:		Lea County, NM		Due Date:																Cool: Cool MeOH: Me		
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm																HCL: HC HNO ₃ : HN		
PO #:																				H ₂ SO ₄ : H ₂ NaOH: Na		
SAMPLE RECEIPT		Temp Blank: ☒ Yes ☐ No		Wet Ice: ☒ Yes ☐ No																H ₃ PO ₄ : HP		
Samples Received Intact:		☒ Yes ☐ No		Thermometer ID:		TAN-007														NaHSO ₄ : NABIS		
Cooler Custody Seals:		Yes ☐ No ☒ N/A		Correction Factor:		-0.2														Na ₂ S ₂ O ₃ : NaSO ₃		
Sample Custody Seals:		Yes ☐ No ☒ N/A		Temperature Reading:		22														Zn Acetate+NaOH: Zn		
Total Containers:				Corrected Temperature:		20														NaOH+Ascorbic Acid: SAPC		
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)											Sample Comments	
CS22		S	1/19/2023	11:55	1'	Comp	1	x	x	x												
CS23		S	1/19/2023	12:00	1'	Comp	1	x	x	x												
CS24		S	1/19/2023	12:05	1'	Comp	1	x	x	x												
CS25		S	1/19/2023	13:15	2.5'	Comp	1	x	x	x												
CS26		S	1/19/2023	13:45	2'	Comp	1	x	x	x												
CS27		S	1/19/2023	13:20	2'	Comp	1	x	x	x												
CS28		S	1/19/2023	13:25	2'	Comp	1	x	x	x												
CS29		S	1/19/2023	13:30	2'	Comp	1	x	x	x												
CS30		S	1/19/2023	13:40	2'	Comp	1	x	x	x												
CS31		S	1/19/2023	13:50	2'	Comp	1	x	x	x												

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti 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 <i>[Signature]</i>	<i>[Signature]</i>	1-23-23 1634			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3931-1

SDG Number: 03D2057048

Login Number: 3931

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: 890-3931-1

SDG Number: 03D2057048

Login Number: 3931

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/25/23 12:13 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	



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 2/6/2023 9:02:44 AM

JOB DESCRIPTION

Leamex 018
SDG NUMBER 03D2057048

JOB NUMBER

890-3932-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
2/6/2023 9:02:44 AM

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: 890-3932-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	21
Lab Chronicle	24
Certification Summary	28
Method Summary	29
Sample Summary	30
Chain of Custody	31
Receipt Checklists	32

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Job ID: 890-3932-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3932-1

Receipt

The samples were received on 1/23/2023 4:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: CS12 (890-3932-1), CS13 (890-3932-2), CS14 (890-3932-3), CS15 (890-3932-4), CS16 (890-3932-5), CS17 (890-3932-6), CS18 (890-3932-7), CS19 (890-3932-8), CS20 (890-3932-9) and CS21 (890-3932-10).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: CS12 (890-3932-1), CS13 (890-3932-2), CS14 (890-3932-3), CS15 (890-3932-4), CS16 (890-3932-5), CS17 (890-3932-6), CS18 (890-3932-7), CS19 (890-3932-8), CS20 (890-3932-9), CS21 (890-3932-10), (MB 880-45053/5-A), (890-3932-A-1-D MS) and (890-3932-A-1-E MSD). Evidence of matrix interferences is not obvious.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-45241 and analytical batch 880-45231 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.

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 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS12

Lab Sample ID: 890-3932-1

Date Collected: 01/19/23 09:40

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/30/23 12:55	01/31/23 17:45	1
Toluene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 17:45	1
Ethylbenzene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 17:45	1
m-Xylene & p-Xylene	<0.00398	U *	0.00398	mg/Kg		01/30/23 12:55	01/31/23 17:45	1
o-Xylene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 17:45	1
Xylenes, Total	<0.00398	U *	0.00398	mg/Kg		01/30/23 12:55	01/31/23 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	253	S1+	70 - 130	01/30/23 12:55	01/31/23 17:45	1
1,4-Difluorobenzene (Surr)	72		70 - 130	01/30/23 12:55	01/31/23 17:45	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			02/02/23 11:39	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			02/05/23 09:15	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		02/01/23 15:25	02/04/23 01:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 01:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 01:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	02/01/23 15:25	02/04/23 01:46	1
o-Terphenyl	106		70 - 130	02/01/23 15:25	02/04/23 01:46	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.05		4.97	mg/Kg			01/30/23 02:32	1

Client Sample ID: CS13

Lab Sample ID: 890-3932-2

Date Collected: 01/19/23 09:45

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/30/23 12:55	01/31/23 18:12	1
Toluene	<0.00198	U *	0.00198	mg/Kg		01/30/23 12:55	01/31/23 18:12	1
Ethylbenzene	<0.00198	U *	0.00198	mg/Kg		01/30/23 12:55	01/31/23 18:12	1
m-Xylene & p-Xylene	<0.00396	U *	0.00396	mg/Kg		01/30/23 12:55	01/31/23 18:12	1
o-Xylene	<0.00198	U *	0.00198	mg/Kg		01/30/23 12:55	01/31/23 18:12	1
Xylenes, Total	<0.00396	U *	0.00396	mg/Kg		01/30/23 12:55	01/31/23 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	250	S1+	70 - 130	01/30/23 12:55	01/31/23 18:12	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS13

Lab Sample ID: 890-3932-2

Date Collected: 01/19/23 09:45

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	76		70 - 130	01/30/23 12:55	01/31/23 18:12	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			02/02/23 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	72.3		49.9	mg/Kg			02/05/23 09:15	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		02/01/23 15:25	02/04/23 02:07	1
Diesel Range Organics (Over C10-C28)	72.3		49.9	mg/Kg		02/01/23 15:25	02/04/23 02:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 02:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			02/01/23 15:25	02/04/23 02:07	1
o-Terphenyl	120		70 - 130			02/01/23 15:25	02/04/23 02:07	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.0		5.00	mg/Kg			01/30/23 02:51	1

Client Sample ID: CS14

Lab Sample ID: 890-3932-3

Date Collected: 01/19/23 09:50

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/30/23 12:55	01/31/23 18:38	1
Toluene	<0.00202	U **	0.00202	mg/Kg		01/30/23 12:55	01/31/23 18:38	1
Ethylbenzene	<0.00202	U **	0.00202	mg/Kg		01/30/23 12:55	01/31/23 18:38	1
m-Xylene & p-Xylene	<0.00403	U **	0.00403	mg/Kg		01/30/23 12:55	01/31/23 18:38	1
o-Xylene	<0.00202	U **	0.00202	mg/Kg		01/30/23 12:55	01/31/23 18:38	1
Xylenes, Total	<0.00403	U **	0.00403	mg/Kg		01/30/23 12:55	01/31/23 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	259	S1+	70 - 130	01/30/23 12:55	01/31/23 18:38	1
1,4-Difluorobenzene (Surr)	72		70 - 130	01/30/23 12:55	01/31/23 18:38	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			02/02/23 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	408		49.9	mg/Kg			02/05/23 09:15	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS14

Lab Sample ID: 890-3932-3

Date Collected: 01/19/23 09:50

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 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		02/01/23 15:25	02/04/23 02:29	1
Diesel Range Organics (Over C10-C28)	355		49.9	mg/Kg		02/01/23 15:25	02/04/23 02:29	1
Oil Range Organics (Over C28-C36)	53.0		49.9	mg/Kg		02/01/23 15:25	02/04/23 02:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			02/01/23 15:25	02/04/23 02:29	1
o-Terphenyl	120		70 - 130			02/01/23 15:25	02/04/23 02:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92.6		4.99	mg/Kg			01/30/23 02:57	1

Client Sample ID: CS15

Lab Sample ID: 890-3932-4

Date Collected: 01/19/23 10:15

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/30/23 12:55	01/31/23 19:05	1
Toluene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 19:05	1
Ethylbenzene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 19:05	1
m-Xylene & p-Xylene	<0.00398	U *	0.00398	mg/Kg		01/30/23 12:55	01/31/23 19:05	1
o-Xylene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 19:05	1
Xylenes, Total	<0.00398	U *	0.00398	mg/Kg		01/30/23 12:55	01/31/23 19:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	270	S1+	70 - 130			01/30/23 12:55	01/31/23 19:05	1
1,4-Difluorobenzene (Surr)	7	S1-	70 - 130			01/30/23 12:55	01/31/23 19:05	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			02/02/23 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	214		49.9	mg/Kg			02/05/23 09:15	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		02/01/23 15:25	02/04/23 02:51	1
Diesel Range Organics (Over C10-C28)	214		49.9	mg/Kg		02/01/23 15:25	02/04/23 02:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 02:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			02/01/23 15:25	02/04/23 02:51	1
o-Terphenyl	114		70 - 130			02/01/23 15:25	02/04/23 02:51	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS15

Lab Sample ID: 890-3932-4

Date Collected: 01/19/23 10:15

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.1		4.95	mg/Kg			01/30/23 03:15	1

Client Sample ID: CS16

Lab Sample ID: 890-3932-5

Date Collected: 01/19/23 10:20

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/30/23 12:55	01/31/23 19:32	1
Toluene	<0.00198	U *	0.00198	mg/Kg		01/30/23 12:55	01/31/23 19:32	1
Ethylbenzene	<0.00198	U *	0.00198	mg/Kg		01/30/23 12:55	01/31/23 19:32	1
m-Xylene & p-Xylene	<0.00397	U *	0.00397	mg/Kg		01/30/23 12:55	01/31/23 19:32	1
o-Xylene	<0.00198	U *	0.00198	mg/Kg		01/30/23 12:55	01/31/23 19:32	1
Xylenes, Total	<0.00397	U *	0.00397	mg/Kg		01/30/23 12:55	01/31/23 19:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	290	S1+	70 - 130			01/30/23 12:55	01/31/23 19:32	1
1,4-Difluorobenzene (Surr)	78		70 - 130			01/30/23 12:55	01/31/23 19:32	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			02/02/23 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	75.3		50.0	mg/Kg			02/05/23 09:15	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		02/01/23 15:25	02/04/23 03:13	1
Diesel Range Organics (Over C10-C28)	75.3		50.0	mg/Kg		02/01/23 15:25	02/04/23 03:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 15:25	02/04/23 03:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			02/01/23 15:25	02/04/23 03:13	1
o-Terphenyl	112		70 - 130			02/01/23 15:25	02/04/23 03:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.04		4.95	mg/Kg			01/30/23 03:21	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS17

Lab Sample ID: 890-3932-6

Date Collected: 01/19/23 10:25

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *	0.00200	mg/Kg		01/30/23 12:55	01/31/23 19:59	1
Toluene	<0.00200	U *	0.00200	mg/Kg		01/30/23 12:55	01/31/23 19:59	1
Ethylbenzene	<0.00200	U *	0.00200	mg/Kg		01/30/23 12:55	01/31/23 19:59	1
m-Xylene & p-Xylene	<0.00400	U *	0.00400	mg/Kg		01/30/23 12:55	01/31/23 19:59	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		01/30/23 12:55	01/31/23 19:59	1
Xylenes, Total	<0.00400	U *	0.00400	mg/Kg		01/30/23 12:55	01/31/23 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	267	S1+	70 - 130	01/30/23 12:55	01/31/23 19:59	1
1,4-Difluorobenzene (Surr)	72		70 - 130	01/30/23 12:55	01/31/23 19:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/02/23 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	84.5		49.9	mg/Kg			02/05/23 09:15	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		02/01/23 15:25	02/04/23 03:35	1
Diesel Range Organics (Over C10-C28)	84.5		49.9	mg/Kg		02/01/23 15:25	02/04/23 03:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 03:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	02/01/23 15:25	02/04/23 03:35	1
o-Terphenyl	105		70 - 130	02/01/23 15:25	02/04/23 03:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.2		4.97	mg/Kg			01/30/23 03:28	1

Client Sample ID: CS18

Lab Sample ID: 890-3932-7

Date Collected: 01/19/23 10:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/30/23 12:55	01/31/23 20:26	1
Toluene	<0.00201	U *	0.00201	mg/Kg		01/30/23 12:55	01/31/23 20:26	1
Ethylbenzene	<0.00201	U *	0.00201	mg/Kg		01/30/23 12:55	01/31/23 20:26	1
m-Xylene & p-Xylene	<0.00402	U *	0.00402	mg/Kg		01/30/23 12:55	01/31/23 20:26	1
o-Xylene	<0.00201	U *	0.00201	mg/Kg		01/30/23 12:55	01/31/23 20:26	1
Xylenes, Total	<0.00402	U *	0.00402	mg/Kg		01/30/23 12:55	01/31/23 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	300	S1+	70 - 130	01/30/23 12:55	01/31/23 20:26	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS18

Lab Sample ID: 890-3932-7

Date Collected: 01/19/23 10:30

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	78		70 - 130	01/30/23 12:55	01/31/23 20:26	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			02/02/23 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	53.5		49.9	mg/Kg			02/05/23 09:15	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		02/01/23 15:25	02/04/23 03:57	1
Diesel Range Organics (Over C10-C28)	53.5		49.9	mg/Kg		02/01/23 15:25	02/04/23 03:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 03:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			02/01/23 15:25	02/04/23 03:57	1
o-Terphenyl	109		70 - 130			02/01/23 15:25	02/04/23 03:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	49.4		5.04	mg/Kg			01/30/23 03:34	1

Client Sample ID: CS19

Lab Sample ID: 890-3932-8

Date Collected: 01/19/23 10:55

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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		01/30/23 12:55	01/31/23 20:53	1
Toluene	<0.00202	U **	0.00202	mg/Kg		01/30/23 12:55	01/31/23 20:53	1
Ethylbenzene	<0.00202	U **	0.00202	mg/Kg		01/30/23 12:55	01/31/23 20:53	1
m-Xylene & p-Xylene	<0.00403	U **	0.00403	mg/Kg		01/30/23 12:55	01/31/23 20:53	1
o-Xylene	<0.00202	U **	0.00202	mg/Kg		01/30/23 12:55	01/31/23 20:53	1
Xylenes, Total	<0.00403	U **	0.00403	mg/Kg		01/30/23 12:55	01/31/23 20:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	288	S1+	70 - 130	01/30/23 12:55	01/31/23 20:53	1
1,4-Difluorobenzene (Surr)	70		70 - 130	01/30/23 12:55	01/31/23 20:53	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			02/02/23 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	156		49.9	mg/Kg			02/05/23 09:15	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS19

Lab Sample ID: 890-3932-8

Date Collected: 01/19/23 10:55

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 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		02/01/23 15:25	02/04/23 04:18	1
Diesel Range Organics (Over C10-C28)	156		49.9	mg/Kg		02/01/23 15:25	02/04/23 04:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 04:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			02/01/23 15:25	02/04/23 04:18	1
o-Terphenyl	101		70 - 130			02/01/23 15:25	02/04/23 04:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99	mg/Kg			01/30/23 03:40	1

Client Sample ID: CS20

Lab Sample ID: 890-3932-9

Date Collected: 01/19/23 11:40

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 2'

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		01/30/23 12:55	01/31/23 21:19	1
Toluene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 21:19	1
Ethylbenzene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 21:19	1
m-Xylene & p-Xylene	<0.00398	U *	0.00398	mg/Kg		01/30/23 12:55	01/31/23 21:19	1
o-Xylene	<0.00199	U *	0.00199	mg/Kg		01/30/23 12:55	01/31/23 21:19	1
Xylenes, Total	<0.00398	U *	0.00398	mg/Kg		01/30/23 12:55	01/31/23 21:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	289	S1+	70 - 130			01/30/23 12:55	01/31/23 21:19	1
1,4-Difluorobenzene (Surr)	75		70 - 130			01/30/23 12:55	01/31/23 21:19	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			02/02/23 11:39	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			02/05/23 09:15	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		02/01/23 15:25	02/04/23 04:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 04:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/04/23 04:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			02/01/23 15:25	02/04/23 04:40	1
o-Terphenyl	109		70 - 130			02/01/23 15:25	02/04/23 04:40	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS20

Date Collected: 01/19/23 11:40

Date Received: 01/23/23 16:24

Sample Depth: 2'

Lab Sample ID: 890-3932-9

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	40.6		4.96	mg/Kg			01/30/23 03:46	1

Client Sample ID: CS21

Date Collected: 01/19/23 11:50

Date Received: 01/23/23 16:24

Sample Depth: 1'

Lab Sample ID: 890-3932-10

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		01/30/23 12:55	01/31/23 21:46	1
Toluene	<0.00201	U *	0.00201	mg/Kg		01/30/23 12:55	01/31/23 21:46	1
Ethylbenzene	<0.00201	U *	0.00201	mg/Kg		01/30/23 12:55	01/31/23 21:46	1
m-Xylene & p-Xylene	<0.00402	U *	0.00402	mg/Kg		01/30/23 12:55	01/31/23 21:46	1
o-Xylene	<0.00201	U *	0.00201	mg/Kg		01/30/23 12:55	01/31/23 21:46	1
Xylenes, Total	<0.00402	U *	0.00402	mg/Kg		01/30/23 12:55	01/31/23 21:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	274	S1+	70 - 130			01/30/23 12:55	01/31/23 21:46	1
1,4-Difluorobenzene (Surr)	73		70 - 130			01/30/23 12:55	01/31/23 21:46	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			02/02/23 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	671		50.0	mg/Kg			02/05/23 09:15	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		02/01/23 15:25	02/04/23 05:02	1
Diesel Range Organics (Over C10-C28)	462		50.0	mg/Kg		02/01/23 15:25	02/04/23 05:02	1
Oil Range Organics (Over C28-C36)	209		50.0	mg/Kg		02/01/23 15:25	02/04/23 05:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			02/01/23 15:25	02/04/23 05:02	1
o-Terphenyl	118		70 - 130			02/01/23 15:25	02/04/23 05:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96	mg/Kg			01/30/23 03:52	1

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Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-3932-1	CS12	253 S1+	72
890-3932-1 MS	CS12	254 S1+	81
890-3932-1 MS	CS12	131 S1+	135 S1+
890-3932-1 MSD	CS12	245 S1+	81
890-3932-1 MSD	CS12	112	118
890-3932-2	CS13	250 S1+	76
890-3932-3	CS14	259 S1+	72
890-3932-4	CS15	270 S1+	7 S1-
890-3932-5	CS16	290 S1+	78
890-3932-6	CS17	267 S1+	72
890-3932-7	CS18	300 S1+	78
890-3932-8	CS19	288 S1+	70
890-3932-9	CS20	289 S1+	75
890-3932-10	CS21	274 S1+	73
LCS 880-45053/1-A	Lab Control Sample	230 S1+	78
LCS 880-45241/1-A	Lab Control Sample	113	108
LCSD 880-45053/2-A	Lab Control Sample Dup	254 S1+	91
LCSD 880-45241/2-A	Lab Control Sample Dup	111	109
MB 880-45053/5-A	Method Blank	165 S1+	66 S1-
MB 880-45241/5-A	Method Blank	75	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-3931-A-1-H MS	Matrix Spike	115	118
890-3931-A-1-I MSD	Matrix Spike Duplicate	117	120
890-3932-1	CS12	94	106
890-3932-2	CS13	107	120
890-3932-3	CS14	110	120
890-3932-4	CS15	105	114
890-3932-5	CS16	106	112
890-3932-6	CS17	93	105
890-3932-7	CS18	99	109
890-3932-8	CS19	91	101
890-3932-9	CS20	100	109
890-3932-10	CS21	110	118
LCS 880-45215/2-A	Lab Control Sample	93	99
LCSD 880-45215/3-A	Lab Control Sample Dup	93	99
MB 880-45215/1-A	Method Blank	128	147 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45053/5-A

Matrix: Solid

Analysis Batch: 45127

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45053

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/30/23 12:55	01/31/23 17:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/30/23 12:55	01/31/23 17:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/30/23 12:55	01/31/23 17:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/30/23 12:55	01/31/23 17:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/30/23 12:55	01/31/23 17:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/30/23 12:55	01/31/23 17:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	165	S1+	70 - 130	01/30/23 12:55	01/31/23 17:18	1
1,4-Difluorobenzene (Surr)	66	S1-	70 - 130	01/30/23 12:55	01/31/23 17:18	1

Lab Sample ID: LCS 880-45053/1-A

Matrix: Solid

Analysis Batch: 45127

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.200	0.1346	*-	mg/Kg		67	70 - 130
Toluene	0.200	0.1435		mg/Kg		72	70 - 130
Ethylbenzene	0.200	0.1507		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	0.400	0.3044		mg/Kg		76	70 - 130
o-Xylene	0.200	0.1498		mg/Kg		75	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	230	S1+	70 - 130
1,4-Difluorobenzene (Surr)	78		70 - 130

Lab Sample ID: LCSD 880-45053/2-A

Matrix: Solid

Analysis Batch: 45127

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45053

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.200	0.1519		mg/Kg		76	70 - 130	12	35
Toluene	0.200	0.1564		mg/Kg		78	70 - 130	9	35
Ethylbenzene	0.200	0.1625		mg/Kg		81	70 - 130	8	35
m-Xylene & p-Xylene	0.400	0.3309		mg/Kg		83	70 - 130	8	35
o-Xylene	0.200	0.1656		mg/Kg		83	70 - 130	10	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	254	S1+	70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 890-3932-1 MS

Matrix: Solid

Analysis Batch: 45127

Client Sample ID: CS12

Prep Type: Total/NA

Prep Batch: 45053

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U *	0.101	0.1221		mg/Kg		121	70 - 130
Toluene	<0.00199	U *	0.101	0.1042		mg/Kg		103	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

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

Lab Sample ID: 890-3932-1 MS

Matrix: Solid

Analysis Batch: 45127

Client Sample ID: CS12

Prep Type: Total/NA

Prep Batch: 45053

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U *	0.101	0.1050		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00398	U *	0.202	0.1701		mg/Kg		84	70 - 130
o-Xylene	<0.00199	U *	0.101	0.1076		mg/Kg		107	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	254	S1+	70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

Lab Sample ID: 890-3932-1 MSD

Matrix: Solid

Analysis Batch: 45127

Client Sample ID: CS12

Prep Type: Total/NA

Prep Batch: 45053

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U *	0.0996	0.1169		mg/Kg		117	70 - 130	4	35
Toluene	<0.00199	U *	0.0996	0.09504		mg/Kg		95	70 - 130	9	35
Ethylbenzene	<0.00199	U *	0.0996	0.09396		mg/Kg		94	70 - 130	11	35
m-Xylene & p-Xylene	<0.00398	U *	0.199	0.1505		mg/Kg		76	70 - 130	12	35
o-Xylene	<0.00199	U *	0.0996	0.09715		mg/Kg		98	70 - 130	10	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	245	S1+	70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

Lab Sample ID: MB 880-45241/5-A

Matrix: Solid

Analysis Batch: 45231

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45241

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:35	02/02/23 11:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:35	02/02/23 11:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:35	02/02/23 11:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/02/23 09:35	02/02/23 11:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/23 09:35	02/02/23 11:46	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/02/23 09:35	02/02/23 11:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	02/02/23 09:35	02/02/23 11:46	1
1,4-Difluorobenzene (Surr)	92		70 - 130	02/02/23 09:35	02/02/23 11:46	1

Lab Sample ID: LCS 880-45241/1-A

Matrix: Solid

Analysis Batch: 45231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1059		mg/Kg		106	70 - 130
Toluene	0.100	0.1011		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.1086		mg/Kg		109	70 - 130
m-Xylene & p-Xylene	0.200	0.2318		mg/Kg		116	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

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

Lab Sample ID: LCS 880-45241/1-A

Matrix: Solid

Analysis Batch: 45231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1137		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-45241/2-A

Matrix: Solid

Analysis Batch: 45231

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45241

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1141		mg/Kg		114	70 - 130	7	35
Toluene	0.100	0.1026		mg/Kg		103	70 - 130	2	35
Ethylbenzene	0.100	0.1108		mg/Kg		111	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2347		mg/Kg		117	70 - 130	1	35
o-Xylene	0.100	0.1153		mg/Kg		115	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 890-3932-1 MS

Matrix: Solid

Analysis Batch: 45231

Client Sample ID: CS12

Prep Type: Total/NA

Prep Batch: 45241

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1	0.101	0.1641	F1	mg/Kg		163	70 - 130
Toluene	<0.00202	U	0.101	0.09471		mg/Kg		94	70 - 130
Ethylbenzene	<0.00202	U	0.101	0.1094		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.202	0.2441		mg/Kg		121	70 - 130
o-Xylene	<0.00202	U	0.101	0.1210		mg/Kg		120	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	135	S1+	70 - 130

Lab Sample ID: 890-3932-1 MSD

Matrix: Solid

Analysis Batch: 45231

Client Sample ID: CS12

Prep Type: Total/NA

Prep Batch: 45241

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00202	U F1	0.0996	0.1430	F1	mg/Kg		144	70 - 130	14	35
Toluene	<0.00202	U	0.0996	0.09433		mg/Kg		95	70 - 130	0	35
Ethylbenzene	<0.00202	U	0.0996	0.09659		mg/Kg		97	70 - 130	12	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.2097		mg/Kg		105	70 - 130	15	35
o-Xylene	<0.00202	U	0.0996	0.1044		mg/Kg		105	70 - 130	15	35

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

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

Lab Sample ID: 890-3932-1 MSD

Matrix: Solid

Analysis Batch: 45231

Client Sample ID: CS12

Prep Type: Total/NA

Prep Batch: 45241

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	118		70 - 130

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

Lab Sample ID: MB 880-45215/1-A

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45215

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 19:59	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 19:59	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:25	02/03/23 19:59	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil	Fac
1-Chlorooctane	128		70 - 130			02/01/23 15:25	02/03/23 19:59	1	
o-Terphenyl	147	S1+	70 - 130			02/01/23 15:25	02/03/23 19:59	1	

Lab Sample ID: LCS 880-45215/2-A

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45215

	Spike	LCS	LCS						
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	999	966.0		mg/Kg		97		70 - 130	
Diesel Range Organics (Over C10-C28)	999	940.8		mg/Kg		94		70 - 130	
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	93		70 - 130						
o-Terphenyl	99		70 - 130						

Lab Sample ID: LCSD 880-45215/3-A

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45215

	Spike	LCSD	LCSD							
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	999	914.3		mg/Kg		92		6	20	
Diesel Range Organics (Over C10-C28)	999	920.1		mg/Kg		92		2	20	
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	93		70 - 130							
o-Terphenyl	99		70 - 130							

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

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

Lab Sample ID: 890-3931-A-1-H MS

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45215

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier			Limits	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	996.6		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1146		mg/Kg		111	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	115		70 - 130								
o-Terphenyl	118		70 - 130								

Lab Sample ID: 890-3931-A-1-I MSD

Matrix: Solid

Analysis Batch: 45301

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45215

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	998	1008		mg/Kg		98	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1164		mg/Kg		113	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	117		70 - 130								
o-Terphenyl	120		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44794/1-A

Matrix: Solid

Analysis Batch: 45050

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			01/30/23 00:47	1

Lab Sample ID: LCS 880-44794/2-A

Matrix: Solid

Analysis Batch: 45050

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.6		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-44794/3-A

Matrix: Solid

Analysis Batch: 45050

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	256.9		mg/Kg		103	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3932-1 MS										Client Sample ID: CS12			
Matrix: Solid										Prep Type: Soluble			
Analysis Batch: 45050													
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits				
Chloride	5.05		249	243.2		mg/Kg		96	90 - 110				

Lab Sample ID: 890-3932-1 MSD										Client Sample ID: CS12			
Matrix: Solid										Prep Type: Soluble			
Analysis Batch: 45050													
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit		
Chloride	5.05		249	242.7		mg/Kg		96	90 - 110	0	20		

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

GC VOA

Prep Batch: 45053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3932-1	CS12	Total/NA	Solid	5035	
890-3932-2	CS13	Total/NA	Solid	5035	
890-3932-3	CS14	Total/NA	Solid	5035	
890-3932-4	CS15	Total/NA	Solid	5035	
890-3932-5	CS16	Total/NA	Solid	5035	
890-3932-6	CS17	Total/NA	Solid	5035	
890-3932-7	CS18	Total/NA	Solid	5035	
890-3932-8	CS19	Total/NA	Solid	5035	
890-3932-9	CS20	Total/NA	Solid	5035	
890-3932-10	CS21	Total/NA	Solid	5035	
MB 880-45053/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45053/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45053/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3932-1 MS	CS12	Total/NA	Solid	5035	
890-3932-1 MSD	CS12	Total/NA	Solid	5035	

Analysis Batch: 45127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3932-1	CS12	Total/NA	Solid	8021B	45053
890-3932-2	CS13	Total/NA	Solid	8021B	45053
890-3932-3	CS14	Total/NA	Solid	8021B	45053
890-3932-4	CS15	Total/NA	Solid	8021B	45053
890-3932-5	CS16	Total/NA	Solid	8021B	45053
890-3932-6	CS17	Total/NA	Solid	8021B	45053
890-3932-7	CS18	Total/NA	Solid	8021B	45053
890-3932-8	CS19	Total/NA	Solid	8021B	45053
890-3932-9	CS20	Total/NA	Solid	8021B	45053
890-3932-10	CS21	Total/NA	Solid	8021B	45053
MB 880-45053/5-A	Method Blank	Total/NA	Solid	8021B	45053
LCS 880-45053/1-A	Lab Control Sample	Total/NA	Solid	8021B	45053
LCSD 880-45053/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45053
890-3932-1 MS	CS12	Total/NA	Solid	8021B	45053
890-3932-1 MSD	CS12	Total/NA	Solid	8021B	45053

Analysis Batch: 45231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45241/5-A	Method Blank	Total/NA	Solid	8021B	45241
LCS 880-45241/1-A	Lab Control Sample	Total/NA	Solid	8021B	45241
LCSD 880-45241/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45241
890-3932-1 MS	CS12	Total/NA	Solid	8021B	45241
890-3932-1 MSD	CS12	Total/NA	Solid	8021B	45241

Prep Batch: 45241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45241/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45241/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45241/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3932-1 MS	CS12	Total/NA	Solid	5035	
890-3932-1 MSD	CS12	Total/NA	Solid	5035	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

GC VOA

Analysis Batch: 45249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3932-1	CS12	Total/NA	Solid	Total BTEX	
890-3932-2	CS13	Total/NA	Solid	Total BTEX	
890-3932-3	CS14	Total/NA	Solid	Total BTEX	
890-3932-4	CS15	Total/NA	Solid	Total BTEX	
890-3932-5	CS16	Total/NA	Solid	Total BTEX	
890-3932-6	CS17	Total/NA	Solid	Total BTEX	
890-3932-7	CS18	Total/NA	Solid	Total BTEX	
890-3932-8	CS19	Total/NA	Solid	Total BTEX	
890-3932-9	CS20	Total/NA	Solid	Total BTEX	
890-3932-10	CS21	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3932-1	CS12	Total/NA	Solid	8015NM Prep	
890-3932-2	CS13	Total/NA	Solid	8015NM Prep	
890-3932-3	CS14	Total/NA	Solid	8015NM Prep	
890-3932-4	CS15	Total/NA	Solid	8015NM Prep	
890-3932-5	CS16	Total/NA	Solid	8015NM Prep	
890-3932-6	CS17	Total/NA	Solid	8015NM Prep	
890-3932-7	CS18	Total/NA	Solid	8015NM Prep	
890-3932-8	CS19	Total/NA	Solid	8015NM Prep	
890-3932-9	CS20	Total/NA	Solid	8015NM Prep	
890-3932-10	CS21	Total/NA	Solid	8015NM Prep	
MB 880-45215/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45215/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45215/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3931-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3931-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3932-1	CS12	Total/NA	Solid	8015B NM	45215
890-3932-2	CS13	Total/NA	Solid	8015B NM	45215
890-3932-3	CS14	Total/NA	Solid	8015B NM	45215
890-3932-4	CS15	Total/NA	Solid	8015B NM	45215
890-3932-5	CS16	Total/NA	Solid	8015B NM	45215
890-3932-6	CS17	Total/NA	Solid	8015B NM	45215
890-3932-7	CS18	Total/NA	Solid	8015B NM	45215
890-3932-8	CS19	Total/NA	Solid	8015B NM	45215
890-3932-9	CS20	Total/NA	Solid	8015B NM	45215
890-3932-10	CS21	Total/NA	Solid	8015B NM	45215
MB 880-45215/1-A	Method Blank	Total/NA	Solid	8015B NM	45215
LCS 880-45215/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45215
LCSD 880-45215/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45215
890-3931-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	45215
890-3931-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45215

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

GC Semi VOA

Analysis Batch: 45488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3932-1	CS12	Total/NA	Solid	8015 NM	
890-3932-2	CS13	Total/NA	Solid	8015 NM	
890-3932-3	CS14	Total/NA	Solid	8015 NM	
890-3932-4	CS15	Total/NA	Solid	8015 NM	
890-3932-5	CS16	Total/NA	Solid	8015 NM	
890-3932-6	CS17	Total/NA	Solid	8015 NM	
890-3932-7	CS18	Total/NA	Solid	8015 NM	
890-3932-8	CS19	Total/NA	Solid	8015 NM	
890-3932-9	CS20	Total/NA	Solid	8015 NM	
890-3932-10	CS21	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3932-1	CS12	Soluble	Solid	DI Leach	
890-3932-2	CS13	Soluble	Solid	DI Leach	
890-3932-3	CS14	Soluble	Solid	DI Leach	
890-3932-4	CS15	Soluble	Solid	DI Leach	
890-3932-5	CS16	Soluble	Solid	DI Leach	
890-3932-6	CS17	Soluble	Solid	DI Leach	
890-3932-7	CS18	Soluble	Solid	DI Leach	
890-3932-8	CS19	Soluble	Solid	DI Leach	
890-3932-9	CS20	Soluble	Solid	DI Leach	
890-3932-10	CS21	Soluble	Solid	DI Leach	
MB 880-44794/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44794/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44794/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3932-1 MS	CS12	Soluble	Solid	DI Leach	
890-3932-1 MSD	CS12	Soluble	Solid	DI Leach	

Analysis Batch: 45050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3932-1	CS12	Soluble	Solid	300.0	44794
890-3932-2	CS13	Soluble	Solid	300.0	44794
890-3932-3	CS14	Soluble	Solid	300.0	44794
890-3932-4	CS15	Soluble	Solid	300.0	44794
890-3932-5	CS16	Soluble	Solid	300.0	44794
890-3932-6	CS17	Soluble	Solid	300.0	44794
890-3932-7	CS18	Soluble	Solid	300.0	44794
890-3932-8	CS19	Soluble	Solid	300.0	44794
890-3932-9	CS20	Soluble	Solid	300.0	44794
890-3932-10	CS21	Soluble	Solid	300.0	44794
MB 880-44794/1-A	Method Blank	Soluble	Solid	300.0	44794
LCS 880-44794/2-A	Lab Control Sample	Soluble	Solid	300.0	44794
LCSD 880-44794/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44794
890-3932-1 MS	CS12	Soluble	Solid	300.0	44794
890-3932-1 MSD	CS12	Soluble	Solid	300.0	44794

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS12

Lab Sample ID: 890-3932-1

Date Collected: 01/19/23 09:40

Matrix: Solid

Date Received: 01/23/23 16:24

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	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 17:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 01:46	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 02:32	CH	EET MID

Client Sample ID: CS13

Lab Sample ID: 890-3932-2

Date Collected: 01/19/23 09:45

Matrix: Solid

Date Received: 01/23/23 16:24

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	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 18:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 02:07	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 02:51	CH	EET MID

Client Sample ID: CS14

Lab Sample ID: 890-3932-3

Date Collected: 01/19/23 09:50

Matrix: Solid

Date Received: 01/23/23 16:24

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	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 18:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 02:29	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 02:57	CH	EET MID

Client Sample ID: CS15

Lab Sample ID: 890-3932-4

Date Collected: 01/19/23 10:15

Matrix: Solid

Date Received: 01/23/23 16:24

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	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 19:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS15**Date Collected: 01/19/23 10:15****Date Received: 01/23/23 16:24****Lab Sample ID: 890-3932-4****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			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 02:51	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 03:15	CH	EET MID

Client Sample ID: CS16**Date Collected: 01/19/23 10:20****Date Received: 01/23/23 16:24****Lab Sample ID: 890-3932-5****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			5.04 g	5 mL	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 19:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 03:13	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 03:21	CH	EET MID

Client Sample ID: CS17**Date Collected: 01/19/23 10:25****Date Received: 01/23/23 16:24****Lab Sample ID: 890-3932-6****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			5.00 g	5 mL	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 19:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 03:35	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 03:28	CH	EET MID

Client Sample ID: CS18**Date Collected: 01/19/23 10:30****Date Received: 01/23/23 16:24****Lab Sample ID: 890-3932-7****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 20:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 03:57	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Client Sample ID: CS18**Date Collected: 01/19/23 10:30****Date Received: 01/23/23 16:24****Lab Sample ID: 890-3932-7****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 03:34	CH	EET MID

Client Sample ID: CS19**Date Collected: 01/19/23 10:55****Date Received: 01/23/23 16:24****Lab Sample ID: 890-3932-8****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 20:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 04:18	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 03:40	CH	EET MID

Client Sample ID: CS20**Date Collected: 01/19/23 11:40****Date Received: 01/23/23 16:24****Lab Sample ID: 890-3932-9****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 21:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 04:40	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 03:46	CH	EET MID

Client Sample ID: CS21**Date Collected: 01/19/23 11:50****Date Received: 01/23/23 16:24****Lab Sample ID: 890-3932-10****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	45053	01/30/23 12:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45127	01/31/23 21:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45249	02/02/23 11:39	MNR	EET MID
Total/NA	Analysis	8015 NM		1			45488	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45215	02/01/23 15:25	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/04/23 05:02	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44794	01/26/23 08:34	CH	EET MID
Soluble	Analysis	300.0		1			45050	01/30/23 03:52	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

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

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- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-3932-1
SDG: 03D2057048

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	EPA	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

EPA = US Environmental Protection Agency

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: 890-3932-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3932-1	CS12	Solid	01/19/23 09:40	01/23/23 16:24	1'
890-3932-2	CS13	Solid	01/19/23 09:45	01/23/23 16:24	1'
890-3932-3	CS14	Solid	01/19/23 09:50	01/23/23 16:24	1'
890-3932-4	CS15	Solid	01/19/23 10:15	01/23/23 16:24	1'
890-3932-5	CS16	Solid	01/19/23 10:20	01/23/23 16:24	1'
890-3932-6	CS17	Solid	01/19/23 10:25	01/23/23 16:24	1'
890-3932-7	CS18	Solid	01/19/23 10:30	01/23/23 16:24	1'
890-3932-8	CS19	Solid	01/19/23 10:55	01/23/23 16:24	1'
890-3932-9	CS20	Solid	01/19/23 11:40	01/23/23 16:24	2'
890-3932-10	CS21	Solid	01/19/23 11:50	01/23/23 16:24	1'



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

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

Project Name:		Leamex 018		Turn Around		ANALYSIS REQUEST										Preservative Codes						
Project Number:		03D2057048		☒ Routine ☐ Rush		Pres. Code												None: NO DI Water: H ₂ O				
Project Location:		Lea County, NM		Due Date:														Cool: Cool MeOH: Me				
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC HNO ₃ : HN				
PO #:																		H ₂ SO ₄ : H ₂ NaOH: Na				
SAMPLE RECEIPT		Temp Blank:		☒ Yes ☐ No		Wet Ice:		☒ Yes ☐ No												H ₃ PO ₄ : HP		
Samples Received Intact:		☒ Yes ☐ No		Thermometer ID:		TMM-005												NaHSO ₄ : NABIS				
Cooler Custody Seals:		☒ Yes ☐ No ☒ N/A		Correction Factor:		-0.2												Na ₂ S ₂ O ₃ : NaSO ₃				
Sample Custody Seals:		☒ Yes ☐ No ☒ N/A		Temperature Reading:		2.2												Zn Acetate+NaOH: Zn				
Total Containers:				Corrected Temperature:		2.0												NaOH+Ascorbic Acid: SAPC				
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)											Sample Comments	
CS12		S	1/19/2023	9:40	1'	Comp	1	x	x	x												
CS13		S	1/19/2023	9:45	1'	Comp	1	x	x	x												
CS14		S	1/19/2023	9:50	1'	Comp	1	x	x	x												
CS15		S	1/19/2023	10:15	1'	Comp	1	x	x	x												
CS16		S	1/19/2023	10:20	1'	Comp	1	x	x	x												
CS17		S	1/19/2023	10:25	1'	Comp	1	x	x	x												
CS18		S	1/19/2023	10:30	1'	Comp	1	x	x	x												
CS19		S	1/19/2023	10:55	1'	Comp	1	x	x	x												
CS20		S	1/19/2023	11:40	2'	Comp	1	x	x	x												
CS21		S	1/19/2023	11:50	1'	Comp	1	x	x	x												

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti 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 <i>[Signature]</i>	<i>[Signature]</i>	1-23-23 16:24			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3932-1

SDG Number: 03D2057048

Login Number: 3932

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: 890-3932-1

SDG Number: 03D2057048

Login Number: 3932

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/25/23 12:13 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	



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/13/2023 4:54:21 PM

JOB DESCRIPTION

Leamex 018

SDG NUMBER 03D2057048

JOB NUMBER

890-4010-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
2/13/2023 4:54:21 PM

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: 890-4010-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Job ID: 890-4010-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4010-1

Receipt

The sample was received on 2/2/2023 4:28 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 4.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW06 (890-4010-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45694 and analytical batch 880-45648 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW06 (890-4010-1). 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: Surrogate recovery for the following sample was outside control limits: SW06 (890-4010-1). 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.

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: 890-4010-1
SDG: 03D2057048

Client Sample ID: SW06

Lab Sample ID: 890-4010-1

Date Collected: 01/27/23 15:00

Matrix: Solid

Date Received: 02/02/23 16:28

Sample Depth: 0 - 2

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		02/07/23 12:47	02/08/23 04:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/07/23 12:47	02/08/23 04:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/07/23 12:47	02/08/23 04:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/07/23 12:47	02/08/23 04:13	1
o-Xylene	0.00217		0.00199	mg/Kg		02/07/23 12:47	02/08/23 04:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/07/23 12:47	02/08/23 04:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	61	S1-	70 - 130	02/07/23 12:47	02/08/23 04:13	1
1,4-Difluorobenzene (Surr)	92		70 - 130	02/07/23 12:47	02/08/23 04:13	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			02/08/23 11:08	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			02/13/23 17:32	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		02/08/23 10:35	02/11/23 22:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/08/23 10:35	02/11/23 22:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/08/23 10:35	02/11/23 22:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130			02/08/23 10:35	02/11/23 22:57	1
o-Terphenyl	77		70 - 130			02/08/23 10:35	02/11/23 22:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	205		5.05	mg/Kg			02/07/23 13:19	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-24368-A-1-G MS	Matrix Spike	62 S1-	99
880-24368-A-1-H MSD	Matrix Spike Duplicate	68 S1-	81
890-4010-1	SW06	61 S1-	92
LCS 880-45694/1-A	Lab Control Sample	113	87
LCSD 880-45694/2-A	Lab Control Sample Dup	85	108
MB 880-45604/5-A	Method Blank	74	93
MB 880-45694/5-A	Method Blank	76	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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3990-A-1-D MS	Matrix Spike	74	78
890-3990-A-1-E MSD	Matrix Spike Duplicate	77	78
890-4010-1	SW06	67 S1-	77
LCS 880-45765/2-A	Lab Control Sample	105	119
LCSD 880-45765/3-A	Lab Control Sample Dup	98	116
MB 880-45765/1-A	Method Blank	80	101
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45604/5-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45604

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/06/23 13:13	02/07/23 10:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	02/06/23 13:13	02/07/23 10:58	1
1,4-Difluorobenzene (Surr)	93		70 - 130	02/06/23 13:13	02/07/23 10:58	1

Lab Sample ID: MB 880-45694/5-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45694

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/07/23 12:47	02/07/23 22:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	02/07/23 12:47	02/07/23 22:42	1
1,4-Difluorobenzene (Surr)	94		70 - 130	02/07/23 12:47	02/07/23 22:42	1

Lab Sample ID: LCS 880-45694/1-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09645		mg/Kg		96	70 - 130
Toluene	0.100	0.09813		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09878		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2143		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1073		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: LCSD 880-45694/2-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1154		mg/Kg		115	70 - 130	18	35

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

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

Lab Sample ID: LCSD 880-45694/2-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.09911		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.08932		mg/Kg		89	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.1768		mg/Kg		88	70 - 130	19	35
o-Xylene	0.100	0.08738		mg/Kg		87	70 - 130	20	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 880-24368-A-1-G MS

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F2 F1	0.101	0.05813	F1	mg/Kg		58	70 - 130
Toluene	<0.00202	U F2 F1	0.101	0.04554	F1	mg/Kg		45	70 - 130
Ethylbenzene	<0.00202	U F2 F1	0.101	0.04571	F1	mg/Kg		45	70 - 130
m-Xylene & p-Xylene	<0.00403	U F2 F1	0.202	0.07871	F1	mg/Kg		39	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.04457	F1	mg/Kg		44	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	62	S1-	70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-24368-A-1-H MSD

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F2 F1	0.0990	0.03472	F2 F1	mg/Kg		35	70 - 130	50	35
Toluene	<0.00202	U F2 F1	0.0990	0.02843	F2 F1	mg/Kg		29	70 - 130	46	35
Ethylbenzene	<0.00202	U F2 F1	0.0990	0.02963	F2 F1	mg/Kg		30	70 - 130	43	35
m-Xylene & p-Xylene	<0.00403	U F2 F1	0.198	0.05305	F2 F1	mg/Kg		27	70 - 130	39	35
o-Xylene	<0.00202	U F1	0.0990	0.03146	F1	mg/Kg		32	70 - 130	35	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	68	S1-	70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

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

Lab Sample ID: MB 880-45765/1-A

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45765

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		02/08/23 10:35	02/11/23 20:28	1

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

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

Lab Sample ID: MB 880-45765/1-A

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45765

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/08/23 10:35	02/11/23 20:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/08/23 10:35	02/11/23 20:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130			02/08/23 10:35	02/11/23 20:28	1
o-Terphenyl	101		70 - 130			02/08/23 10:35	02/11/23 20:28	1

Lab Sample ID: LCS 880-45765/2-A

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	934.0		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	942.0		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	105		70 - 130				
o-Terphenyl	119		70 - 130				

Lab Sample ID: LCSD 880-45765/3-A

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45765

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	922.0		mg/Kg		92	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	947.5		mg/Kg		95	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	98		70 - 130						
o-Terphenyl	116		70 - 130						

Lab Sample ID: 890-3990-A-1-D MS

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45765

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1111		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	138		997	1391		mg/Kg		126	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	74		70 - 130						
o-Terphenyl	78		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

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

Lab Sample ID: 890-3990-A-1-E MSD

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1127		mg/Kg		113	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	138		999	1421		mg/Kg		128	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	77		70 - 130								
o-Terphenyl	78		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45573/1-A

Matrix: Solid

Analysis Batch: 45700

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			02/07/23 12:05	1

Lab Sample ID: LCS 880-45573/2-A

Matrix: Solid

Analysis Batch: 45700

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	253.7		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-45573/3-A

Matrix: Solid

Analysis Batch: 45700

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-4006-A-1-B MS

Matrix: Solid

Analysis Batch: 45700

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	368		1240	1703		mg/Kg		108	90 - 110

Lab Sample ID: 890-4006-A-1-C MSD

Matrix: Solid

Analysis Batch: 45700

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	368		1240	1708		mg/Kg		108	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

GC VOA

Prep Batch: 45604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45604/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 45648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW06	Total/NA	Solid	8021B	45694
MB 880-45604/5-A	Method Blank	Total/NA	Solid	8021B	45604
MB 880-45694/5-A	Method Blank	Total/NA	Solid	8021B	45694
LCS 880-45694/1-A	Lab Control Sample	Total/NA	Solid	8021B	45694
LCSD 880-45694/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45694
880-24368-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	45694
880-24368-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45694

Prep Batch: 45694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW06	Total/NA	Solid	5035	
MB 880-45694/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45694/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45694/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24368-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-24368-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW06	Total/NA	Solid	8015NM Prep	
MB 880-45765/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45765/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3990-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3990-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW06	Total/NA	Solid	8015B NM	45765
MB 880-45765/1-A	Method Blank	Total/NA	Solid	8015B NM	45765
LCS 880-45765/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45765
LCSD 880-45765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45765
890-3990-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45765
890-3990-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45765

Analysis Batch: 46206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW06	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

HPLC/IC

Leach Batch: 45573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW06	Soluble	Solid	DI Leach	
MB 880-45573/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45573/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45573/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4006-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4006-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW06	Soluble	Solid	300.0	45573
MB 880-45573/1-A	Method Blank	Soluble	Solid	300.0	45573
LCS 880-45573/2-A	Lab Control Sample	Soluble	Solid	300.0	45573
LCSD 880-45573/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45573
890-4006-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45573
890-4006-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45573

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Client Sample ID: SW06
Date Collected: 01/27/23 15:00
Date Received: 02/02/23 16:28

Lab Sample ID: 890-4010-1
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	45694	02/07/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45648	02/08/23 04:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45773	02/08/23 11:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46206	02/13/23 17:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45765	02/08/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46052	02/11/23 22:57	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	45573	02/06/23 11:13	KS	EET MID
Soluble	Analysis	300.0		1			45700	02/07/23 13:19	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

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	EPA	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

EPA = US Environmental Protection Agency

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: 890-4010-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4010-1	SW06	Solid	01/27/23 15:00	02/02/23 16:28	0 - 2

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	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 018	Turn Around		ANALYSIS REQUEST																Preservative Codes													
Project Number:	03D2057048	☒ Routine ☐ Rush	Pres. Code																None: NO	DI Water: H ₂ O													
Project Location:	Lea County, NM	Due Date:		Parameters	TPH (8015)	Chlorides	BTEX (8021)											Cool: Cool	MeOH: Me														
Sampler's Name:	Conner Shore	TAT starts the day received by the lab. if received by 4:30pm																													HCL: HC	HNO ₃ : HN	
PO #:																																H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT		Temp Blank: ☒ Yes ☐ No	Wet Ice: ☒ Yes ☐ No																														H ₃ PO ₄ : HP
Samples Received Intact:	☒ Yes ☐ No	Thermometer ID:	710007																NaHSO ₄ : NABIS														
Cooler Custody Seals:	Yes ☐ No ☒ N/A	Correction Factor:	-0.2																Na ₂ S ₂ O ₃ : NaSO ₃														
Sample Custody Seals:	Yes ☐ No ☒ N/A	Temperature Reading:	4.2																Zn Acetate+NaOH: Zn														
Total Containers:		Corrected Temperature:	4.0																NaOH+Ascorbic Acid: SAPC														
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	TPH (8015)	Chlorides	BTEX (8021)										Sample Comments														
SW06	S	1.27.23	1500	0-2'	C	1	x	x	x																								
Incident Number																																	

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 Ti 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 Ti 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
	<i>[Signature]</i>	2-1-23, 1125	<i>[Signature]</i>	<i>[Signature]</i>	2-2-23, 1428
1			2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4010-1

SDG Number: 03D2057048

Login Number: 4010

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: 890-4010-1

SDG Number: 03D2057048

Login Number: 4010

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/06/23 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	



Environment Testing

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- 2
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ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/22/2023 4:28:08 PM Revision 1

JOB DESCRIPTION

Leamex 018
SDG NUMBER 03D2057048

JOB NUMBER

890-4010-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

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

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

Generated
2/22/2023 4:28:08 PM
Revision 1

Client: Ensolum
Project/Site: Leamex 018

Laboratory Job ID: 890-4010-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Job ID: 890-4010-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4010-1

REVISION

The report being provided is a revision of the original report sent on 2/13/2023. The report (revision 1) is being revised due to Per client email requesting sample ID name be corrected.

Report revision history

Receipt

The sample was received on 2/2/2023 4:28 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 4.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW05A (890-4010-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-45694 and analytical batch 880-45648 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW05A (890-4010-1). 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: Surrogate recovery for the following sample was outside control limits: SW05A (890-4010-1). 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.

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: 890-4010-1
SDG: 03D2057048

Client Sample ID: SW05A

Lab Sample ID: 890-4010-1

Date Collected: 01/27/23 15:00

Matrix: Solid

Date Received: 02/02/23 16:28

Sample Depth: 0 - 2

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		02/07/23 12:47	02/08/23 04:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/07/23 12:47	02/08/23 04:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/07/23 12:47	02/08/23 04:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/07/23 12:47	02/08/23 04:13	1
o-Xylene	0.00217		0.00199	mg/Kg		02/07/23 12:47	02/08/23 04:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/07/23 12:47	02/08/23 04:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	61	S1-	70 - 130	02/07/23 12:47	02/08/23 04:13	1
1,4-Difluorobenzene (Surr)	92		70 - 130	02/07/23 12:47	02/08/23 04:13	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			02/08/23 11:08	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			02/13/23 17:32	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		02/08/23 10:35	02/11/23 22:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/08/23 10:35	02/11/23 22:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/08/23 10:35	02/11/23 22:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130	02/08/23 10:35	02/11/23 22:57	1
o-Terphenyl	77		70 - 130	02/08/23 10:35	02/11/23 22:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	205		5.05	mg/Kg			02/07/23 13:19	1

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Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-24368-A-1-G MS	Matrix Spike	62 S1-	99
880-24368-A-1-H MSD	Matrix Spike Duplicate	68 S1-	81
890-4010-1	SW05A	61 S1-	92
LCS 880-45694/1-A	Lab Control Sample	113	87
LCSD 880-45694/2-A	Lab Control Sample Dup	85	108
MB 880-45604/5-A	Method Blank	74	93
MB 880-45694/5-A	Method Blank	76	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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3990-A-1-D MS	Matrix Spike	74	78
890-3990-A-1-E MSD	Matrix Spike Duplicate	77	78
890-4010-1	SW05A	67 S1-	77
LCS 880-45765/2-A	Lab Control Sample	105	119
LCSD 880-45765/3-A	Lab Control Sample Dup	98	116
MB 880-45765/1-A	Method Blank	80	101
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45604/5-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45604

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/06/23 13:13	02/07/23 10:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/06/23 13:13	02/07/23 10:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	02/06/23 13:13	02/07/23 10:58	1
1,4-Difluorobenzene (Surr)	93		70 - 130	02/06/23 13:13	02/07/23 10:58	1

Lab Sample ID: MB 880-45694/5-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45694

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/07/23 12:47	02/07/23 22:42	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/07/23 12:47	02/07/23 22:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		70 - 130	02/07/23 12:47	02/07/23 22:42	1
1,4-Difluorobenzene (Surr)	94		70 - 130	02/07/23 12:47	02/07/23 22:42	1

Lab Sample ID: LCS 880-45694/1-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09645		mg/Kg		96	70 - 130
Toluene	0.100	0.09813		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09878		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2143		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1073		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: LCSD 880-45694/2-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1154		mg/Kg		115	70 - 130	18	35

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

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

Lab Sample ID: LCSD 880-45694/2-A

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.09911		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.08932		mg/Kg		89	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.1768		mg/Kg		88	70 - 130	19	35
o-Xylene	0.100	0.08738		mg/Kg		87	70 - 130	20	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 880-24368-A-1-G MS

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F2 F1	0.101	0.05813	F1	mg/Kg		58	70 - 130
Toluene	<0.00202	U F2 F1	0.101	0.04554	F1	mg/Kg		45	70 - 130
Ethylbenzene	<0.00202	U F2 F1	0.101	0.04571	F1	mg/Kg		45	70 - 130
m-Xylene & p-Xylene	<0.00403	U F2 F1	0.202	0.07871	F1	mg/Kg		39	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.04457	F1	mg/Kg		44	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	62	S1-	70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-24368-A-1-H MSD

Matrix: Solid

Analysis Batch: 45648

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45694

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F2 F1	0.0990	0.03472	F2 F1	mg/Kg		35	70 - 130	50	35
Toluene	<0.00202	U F2 F1	0.0990	0.02843	F2 F1	mg/Kg		29	70 - 130	46	35
Ethylbenzene	<0.00202	U F2 F1	0.0990	0.02963	F2 F1	mg/Kg		30	70 - 130	43	35
m-Xylene & p-Xylene	<0.00403	U F2 F1	0.198	0.05305	F2 F1	mg/Kg		27	70 - 130	39	35
o-Xylene	<0.00202	U F1	0.0990	0.03146	F1	mg/Kg		32	70 - 130	35	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	68	S1-	70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

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

Lab Sample ID: MB 880-45765/1-A

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45765

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		02/08/23 10:35	02/11/23 20:28	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

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

Lab Sample ID: MB 880-45765/1-A

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45765

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/08/23 10:35	02/11/23 20:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/08/23 10:35	02/11/23 20:28	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130			02/08/23 10:35	02/11/23 20:28	1
o-Terphenyl	101		70 - 130			02/08/23 10:35	02/11/23 20:28	1

Lab Sample ID: LCS 880-45765/2-A

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	934.0		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	942.0		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	105		70 - 130				
o-Terphenyl	119		70 - 130				

Lab Sample ID: LCSD 880-45765/3-A

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45765

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	922.0		mg/Kg		92	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	947.5		mg/Kg		95	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	98		70 - 130						
o-Terphenyl	116		70 - 130						

Lab Sample ID: 890-3990-A-1-D MS

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45765

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1111		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	138		997	1391		mg/Kg		126	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	74		70 - 130						
o-Terphenyl	78		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

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

Lab Sample ID: 890-3990-A-1-E MSD

Matrix: Solid

Analysis Batch: 46052

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1127		mg/Kg		113	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	138		999	1421		mg/Kg		128	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	77		70 - 130								
o-Terphenyl	78		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45573/1-A

Matrix: Solid

Analysis Batch: 45700

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			02/07/23 12:05	1

Lab Sample ID: LCS 880-45573/2-A

Matrix: Solid

Analysis Batch: 45700

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	253.7		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-45573/3-A

Matrix: Solid

Analysis Batch: 45700

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-4006-A-1-B MS

Matrix: Solid

Analysis Batch: 45700

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	368		1240	1703		mg/Kg		108	90 - 110

Lab Sample ID: 890-4006-A-1-C MSD

Matrix: Solid

Analysis Batch: 45700

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	368		1240	1708		mg/Kg		108	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

GC VOA

Prep Batch: 45604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45604/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 45648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW05A	Total/NA	Solid	8021B	45694
MB 880-45604/5-A	Method Blank	Total/NA	Solid	8021B	45604
MB 880-45694/5-A	Method Blank	Total/NA	Solid	8021B	45694
LCS 880-45694/1-A	Lab Control Sample	Total/NA	Solid	8021B	45694
LCSD 880-45694/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45694
880-24368-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	45694
880-24368-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45694

Prep Batch: 45694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW05A	Total/NA	Solid	5035	
MB 880-45694/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45694/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45694/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-24368-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-24368-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW05A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW05A	Total/NA	Solid	8015NM Prep	
MB 880-45765/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45765/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3990-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3990-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW05A	Total/NA	Solid	8015B NM	45765
MB 880-45765/1-A	Method Blank	Total/NA	Solid	8015B NM	45765
LCS 880-45765/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45765
LCSD 880-45765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45765
890-3990-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	45765
890-3990-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45765

Analysis Batch: 46206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW05A	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

HPLC/IC

Leach Batch: 45573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW05A	Soluble	Solid	DI Leach	
MB 880-45573/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45573/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45573/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4006-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4006-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4010-1	SW05A	Soluble	Solid	300.0	45573
MB 880-45573/1-A	Method Blank	Soluble	Solid	300.0	45573
LCS 880-45573/2-A	Lab Control Sample	Soluble	Solid	300.0	45573
LCSD 880-45573/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45573
890-4006-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45573
890-4006-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45573

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Client Sample ID: SW05A
Date Collected: 01/27/23 15:00
Date Received: 02/02/23 16:28

Lab Sample ID: 890-4010-1
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	45694	02/07/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45648	02/08/23 04:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45773	02/08/23 11:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46206	02/13/23 17:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45765	02/08/23 10:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46052	02/11/23 22:57	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	45573	02/06/23 11:13	KS	EET MID
Soluble	Analysis	300.0		1			45700	02/07/23 13:19	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4010-1
SDG: 03D2057048

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	EPA	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

EPA = US Environmental Protection Agency

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: 890-4010-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4010-1	SW05A	Solid	01/27/23 15:00	02/02/23 16:28	0 - 2

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4010-1

SDG Number: 03D2057048

Login Number: 4010**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: 890-4010-1

SDG Number: 03D2057048

Login Number: 4010**List Number: 2****Creator: Rodriguez, Leticia****List Source: Eurofins Midland****List Creation: 02/06/23 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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/13/2023 7:38:00 PM

JOB DESCRIPTION

Leamex 018

SDG NUMBER 03D2057048

JOB NUMBER

890-4035-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
2/13/2023 7:38:00 PM

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: 890-4035-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

1

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3

4

5

6

7

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9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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.
α	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: 890-4035-1
SDG: 03D2057048

Job ID: 890-4035-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4035-1****Receipt**

The sample was received on 2/6/2023 2:12 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 5.0°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW05 (890-4035-1).

GC VOA

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-46011 and analytical batch 880-46074 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.

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-45930 and analytical batch 880-46064 was outside the control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4071-A-2-D), (890-4071-A-2-E MS) and (890-4071-A-2-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: SW05 (890-4035-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-45930 and analytical batch 880-46064. The associated laboratory control sample (LCS) met acceptance criteria.

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

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: 890-4035-1
SDG: 03D2057048

Client Sample ID: SW05

Lab Sample ID: 890-4035-1

Date Collected: 02/06/23 11:45

Matrix: Solid

Date Received: 02/06/23 14:12

Sample Depth: 0-2.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/10/23 14:34	02/12/23 15:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:32	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/10/23 14:34	02/12/23 15:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	02/10/23 14:34	02/12/23 15:32	1
1,4-Difluorobenzene (Surr)	105		70 - 130	02/10/23 14:34	02/12/23 15:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/13/23 09:13	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			02/13/23 17:59	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		02/09/23 17:38	02/13/23 05:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/09/23 17:38	02/13/23 05:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:38	02/13/23 05:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	1	S1-	70 - 130	02/09/23 17:38	02/13/23 05:32	1
o-Terphenyl	0.5	S1-	70 - 130	02/09/23 17:38	02/13/23 05:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.54		4.97	mg/Kg			02/10/23 04:43	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

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)
890-4035-1	SW05	120	105
890-4035-1 MS	SW05	109	99
890-4035-1 MSD	SW05	108	96
LCS 880-46011/1-A	Lab Control Sample	109	113
LCSD 880-46011/2-A	Lab Control Sample Dup	109	111
MB 880-46011/5-A	Method Blank	111	103
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)
890-4035-1	SW05	1 S1-	0.5 S1-
890-4071-A-2-E MS	Matrix Spike	1 S1-	0.3 S1-
890-4071-A-2-F MSD	Matrix Spike Duplicate	2 S1-	0.3 S1-
LCS 880-45930/2-A	Lab Control Sample	92	98
LCSD 880-45930/3-A	Lab Control Sample Dup	93	101
MB 880-45930/1-A	Method Blank	63 S1-	67 S1-
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46011/5-A

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46011

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 14:34	02/12/23 15:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 14:34	02/12/23 15:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	02/10/23 14:34	02/12/23 15:04	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/10/23 14:34	02/12/23 15:04	1

Lab Sample ID: LCS 880-46011/1-A

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46011

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1085		mg/Kg		109	70 - 130
Toluene	0.100	0.1064		mg/Kg		106	70 - 130
Ethylbenzene	0.100	0.1052		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2189		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1061		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: LCSD 880-46011/2-A

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46011

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1057		mg/Kg		106	70 - 130	3	35
Toluene	0.100	0.1031		mg/Kg		103	70 - 130	3	35
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2154		mg/Kg		108	70 - 130	2	35
o-Xylene	0.100	0.1028		mg/Kg		103	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 890-4035-1 MS

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: SW05

Prep Type: Total/NA

Prep Batch: 46011

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0996	0.06658	F1	mg/Kg		67	70 - 130
Toluene	<0.00200	U	0.0996	0.07369		mg/Kg		73	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

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

Lab Sample ID: 890-4035-1 MS

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: SW05

Prep Type: Total/NA

Prep Batch: 46011

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.07703		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1540		mg/Kg		77	70 - 130
o-Xylene	<0.00200	U	0.0996	0.07566		mg/Kg		75	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-4035-1 MSD

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: SW05

Prep Type: Total/NA

Prep Batch: 46011

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.100	0.07290		mg/Kg		73	70 - 130	9	35
Toluene	<0.00200	U	0.100	0.08292		mg/Kg		82	70 - 130	12	35
Ethylbenzene	<0.00200	U	0.100	0.08698		mg/Kg		86	70 - 130	12	35
m-Xylene & p-Xylene	<0.00399	U	0.201	0.1738		mg/Kg		87	70 - 130	12	35
o-Xylene	<0.00200	U	0.100	0.08267		mg/Kg		82	70 - 130	9	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-45930/1-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45930

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		02/09/23 17:38	02/12/23 21:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:38	02/12/23 21:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:38	02/12/23 21:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	63	S1-	70 - 130	02/09/23 17:38	02/12/23 21:21	1
o-Terphenyl	67	S1-	70 - 130	02/09/23 17:38	02/12/23 21:21	1

Lab Sample ID: LCS 880-45930/2-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	966.6		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1069		mg/Kg		107	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

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

Lab Sample ID: LCS 880-45930/2-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45930

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: LCSD 880-45930/3-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45930

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1074		mg/Kg		107	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	1073		mg/Kg		107	70 - 130	0	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: 890-4071-A-2-E MS

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45930

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 F1	998	<49.9	U F1	mg/Kg		0.1	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	<49.9	U F1	mg/Kg		0.2	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	1	S1-	70 - 130
o-Terphenyl	0.3	S1-	70 - 130

Lab Sample ID: 890-4071-A-2-F MSD

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45930

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 F1	999	<50.0	U F1	mg/Kg		0.4	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	999	<50.0	U F1	mg/Kg		0.5	70 - 130	9	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	2	S1-	70 - 130
o-Terphenyl	0.3	S1-	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45807/1-A

Matrix: Solid

Analysis Batch: 45909

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			02/10/23 03:23	1

Lab Sample ID: LCS 880-45807/2-A

Matrix: Solid

Analysis Batch: 45909

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	250.6		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-45807/3-A

Matrix: Solid

Analysis Batch: 45909

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	251.5		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-24477-A-1-B MS

Matrix: Solid

Analysis Batch: 45909

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	116		253	372.5		mg/Kg		102	90 - 110

Lab Sample ID: 880-24477-A-1-C MSD

Matrix: Solid

Analysis Batch: 45909

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	116		253	373.2		mg/Kg		102	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

GC VOA

Prep Batch: 46011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4035-1	SW05	Total/NA	Solid	5035	
MB 880-46011/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46011/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46011/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4035-1 MS	SW05	Total/NA	Solid	5035	
890-4035-1 MSD	SW05	Total/NA	Solid	5035	

Analysis Batch: 46074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4035-1	SW05	Total/NA	Solid	8021B	46011
MB 880-46011/5-A	Method Blank	Total/NA	Solid	8021B	46011
LCS 880-46011/1-A	Lab Control Sample	Total/NA	Solid	8021B	46011
LCSD 880-46011/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46011
890-4035-1 MS	SW05	Total/NA	Solid	8021B	46011
890-4035-1 MSD	SW05	Total/NA	Solid	8021B	46011

Analysis Batch: 46094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4035-1	SW05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4035-1	SW05	Total/NA	Solid	8015NM Prep	
MB 880-45930/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45930/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45930/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4071-A-2-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4071-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4035-1	SW05	Total/NA	Solid	8015B NM	45930
MB 880-45930/1-A	Method Blank	Total/NA	Solid	8015B NM	45930
LCS 880-45930/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45930
LCSD 880-45930/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45930
890-4071-A-2-E MS	Matrix Spike	Total/NA	Solid	8015B NM	45930
890-4071-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45930

Analysis Batch: 46216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4035-1	SW05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4035-1	SW05	Soluble	Solid	DI Leach	
MB 880-45807/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45807/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45807/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

HPLC/IC (Continued)

Leach Batch: 45807 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24477-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-24477-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4035-1	SW05	Soluble	Solid	300.0	45807
MB 880-45807/1-A	Method Blank	Soluble	Solid	300.0	45807
LCS 880-45807/2-A	Lab Control Sample	Soluble	Solid	300.0	45807
LCSD 880-45807/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45807
880-24477-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45807
880-24477-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45807

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

Client Sample ID: SW05
Date Collected: 02/06/23 11:45
Date Received: 02/06/23 14:12

Lab Sample ID: 890-4035-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	46011	02/10/23 14:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46074	02/12/23 15:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46094	02/13/23 09:13	MNR	EET MID
Total/NA	Analysis	8015 NM		1			46216	02/13/23 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45930	02/09/23 17:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46064	02/13/23 05:32	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	45807	02/08/23 14:35	KS	EET MID
Soluble	Analysis	300.0		1			45909	02/10/23 04:43	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: 890-4035-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 890-4035-1
SDG: 03D2057048

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	EPA	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

EPA = US Environmental Protection Agency

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: 890-4035-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4035-1	SW05	Solid	02/06/23 11:45	02/06/23 14:12	0-2.5'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4035-1

SDG Number: 03D2057048

Login Number: 4035

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: 890-4035-1

SDG Number: 03D2057048

Login Number: 4035

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/08/23 02:46 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	



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 3/9/2023 1:54:06 PM

JOB DESCRIPTION

Maverick Leamex 018
SDG NUMBER 03D2057048

JOB NUMBER

890-4200-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
3/9/2023 1:54:06 PM

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

Client: Ensolum
Project/Site: Maverick Leamex 018

Laboratory Job ID: 890-4200-1
SDG: 03D2057048

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	28
QC Sample Results	30
QC Association Summary	37
Lab Chronicle	43
Certification Summary	51
Method Summary	52
Sample Summary	53
Chain of Custody	54
Receipt Checklists	57

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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.
α	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: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Job ID: 890-4200-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4200-1

Receipt

The samples were received on 2/27/2023 9:30 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 (890-4200-1), SW02 (890-4200-2), CS53 (890-4200-3), CS54 (890-4200-4), CS55 (890-4200-5), CS14 (890-4200-6), CS26 (890-4200-7), CS35 (890-4200-8), CS15 (890-4200-9), CS36 (890-4200-10), CS37 (890-4200-11), CS28 (890-4200-12), CS29 (890-4200-13), CS39 (890-4200-14), CS40 (890-4200-15), CS52 (890-4200-16), CS51 (890-4200-17), CS43 (890-4200-18), CS48 (890-4200-19), CS47 (890-4200-20), CS25 (890-4200-21), CS21 (890-4200-22), SW03 (890-4200-23), CS19 (890-4200-24) and SW04 (890-4200-25).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW01 (890-4200-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-48091 and analytical batch 880-48087 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.

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-47556 and analytical batch 880-47601 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: CS28 (890-4200-12), CS29 (890-4200-13), CS39 (890-4200-14), CS40 (890-4200-15), (890-4200-A-12-B MS) and (890-4200-A-12-C 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 samples were outside control limits: (LCS 880-47556/2-A) and (LCSD 880-47556/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: CS52 (890-4200-16) and CS51 (890-4200-17). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-47556 and analytical batch 880-47601 contained OII Range Organics (Over C28-C36) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: CS25 (890-4200-21), CS21 (890-4200-22), SW03 (890-4200-23), CS19 (890-4200-24) and SW04 (890-4200-25). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: CS43 (890-4200-18) and CS48 (890-4200-19). 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.

HPLC/IC

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

Case Narrative

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Job ID: 890-4200-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: SW01

Lab Sample ID: 890-4200-1

Date Collected: 02/23/23 08:45

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 0 - 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1	0.00202	0.000388 mg/Kg		03/08/23 09:25	03/08/23 17:43	1
Toluene	0.00117	J	0.00202	0.000460 mg/Kg		03/08/23 09:25	03/08/23 17:43	1
Ethylbenzene	<0.00202	U	0.00202	0.000570 mg/Kg		03/08/23 09:25	03/08/23 17:43	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	0.00102 mg/Kg		03/08/23 09:25	03/08/23 17:43	1
o-Xylene	<0.00202	U	0.00202	0.000347 mg/Kg		03/08/23 09:25	03/08/23 17:43	1
Xylenes, Total	<0.00403	U	0.00403	0.00102 mg/Kg		03/08/23 09:25	03/08/23 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	03/08/23 09:25	03/08/23 17:43	1
1,4-Difluorobenzene (Surr)	96		70 - 130	03/08/23 09:25	03/08/23 17:43	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00117	J	0.00403	0.00102 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	125		49.9	15.0 mg/Kg			03/02/23 09:18	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	15.0 mg/Kg		03/01/23 12:36	03/02/23 00:43	1
Diesel Range Organics (Over C10-C28)	104		49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 00:43	1
Oil Range Organics (Over C28-C36)	21.1	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 00:43	1
Total TPH	125		49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	03/01/23 12:36	03/02/23 00:43	1
o-Terphenyl	117		70 - 130	03/01/23 12:36	03/02/23 00:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.3		5.05	0.399 mg/Kg			03/02/23 18:53	1

Client Sample ID: SW02

Lab Sample ID: 890-4200-2

Date Collected: 02/23/23 08:50

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 0 - 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	0.000381 mg/Kg		03/08/23 09:25	03/08/23 18:03	1
Toluene	0.00260		0.00198	0.000451 mg/Kg		03/08/23 09:25	03/08/23 18:03	1
Ethylbenzene	0.00144	J	0.00198	0.000559 mg/Kg		03/08/23 09:25	03/08/23 18:03	1
m-Xylene & p-Xylene	0.00153	J	0.00396	0.00100 mg/Kg		03/08/23 09:25	03/08/23 18:03	1
o-Xylene	0.000688	J	0.00198	0.000341 mg/Kg		03/08/23 09:25	03/08/23 18:03	1
Xylenes, Total	0.00222	J	0.00396	0.00100 mg/Kg		03/08/23 09:25	03/08/23 18:03	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: SW02

Lab Sample ID: 890-4200-2

Date Collected: 02/23/23 08:50

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 0 - 2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	03/08/23 09:25	03/08/23 18:03	1
1,4-Difluorobenzene (Surr)	94		70 - 130	03/08/23 09:25	03/08/23 18:03	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00626		0.00396	0.00100 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	76.6		49.9	15.0 mg/Kg			03/02/23 09:18	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	23.7	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 01:26	1
Diesel Range Organics (Over C10-C28)	27.9	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 01:26	1
Oil Range Organics (Over C28-C36)	25.0	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 01:26	1
Total TPH	76.6		49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 01:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	03/01/23 12:36	03/02/23 01:26	1
o-Terphenyl	112		70 - 130	03/01/23 12:36	03/02/23 01:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.7		5.00	0.395 mg/Kg			03/02/23 19:11	1

Client Sample ID: CS53

Lab Sample ID: 890-4200-3

Date Collected: 02/23/23 09:20

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000384 mg/Kg		03/08/23 09:25	03/08/23 18:23	1
Toluene	0.000975	J	0.00200	0.000455 mg/Kg		03/08/23 09:25	03/08/23 18:23	1
Ethylbenzene	0.00110	J	0.00200	0.000564 mg/Kg		03/08/23 09:25	03/08/23 18:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	0.00101 mg/Kg		03/08/23 09:25	03/08/23 18:23	1
o-Xylene	0.000393	J	0.00200	0.000343 mg/Kg		03/08/23 09:25	03/08/23 18:23	1
Xylenes, Total	<0.00399	U	0.00399	0.00101 mg/Kg		03/08/23 09:25	03/08/23 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	03/08/23 09:25	03/08/23 18:23	1
1,4-Difluorobenzene (Surr)	102		70 - 130	03/08/23 09:25	03/08/23 18:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00247	J	0.00399	0.00101 mg/Kg			03/09/23 12:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS53

Lab Sample ID: 890-4200-3

Date Collected: 02/23/23 09:20

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	155		50.0	15.0 mg/Kg			03/02/23 09:18	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	15.6	J	50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 01:47	1
Diesel Range Organics (Over C10-C28)	120		50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 01:47	1
Oil Range Organics (Over C28-C36)	19.2	J	50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 01:47	1
Total TPH	155		50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 01:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	03/01/23 12:36	03/02/23 01:47	1
o-Terphenyl	109		70 - 130	03/01/23 12:36	03/02/23 01:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.6		4.99	0.394 mg/Kg			03/02/23 19:18	1

Client Sample ID: CS54

Lab Sample ID: 890-4200-4

Date Collected: 02/23/23 09:25

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 09:25	03/08/23 18:44	1
Toluene	0.000602	J	0.00199	0.000454 mg/Kg		03/08/23 09:25	03/08/23 18:44	1
Ethylbenzene	<0.00199	U	0.00199	0.000563 mg/Kg		03/08/23 09:25	03/08/23 18:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 09:25	03/08/23 18:44	1
o-Xylene	0.000356	J	0.00199	0.000343 mg/Kg		03/08/23 09:25	03/08/23 18:44	1
Xylenes, Total	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 09:25	03/08/23 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	03/08/23 09:25	03/08/23 18:44	1
1,4-Difluorobenzene (Surr)	104		70 - 130	03/08/23 09:25	03/08/23 18:44	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	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	70.2		49.9	15.0 mg/Kg			03/02/23 09:18	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	32.5	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:09	1
Diesel Range Organics (Over C10-C28)	37.7	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS54

Lab Sample ID: 890-4200-4

Date Collected: 02/23/23 09:25

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:09	1
Total TPH	70.2		49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			03/01/23 12:36	03/02/23 02:09	1
o-Terphenyl	103		70 - 130			03/01/23 12:36	03/02/23 02:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.4		4.95	0.391 mg/Kg			03/02/23 19:24	1

Client Sample ID: CS55

Lab Sample ID: 890-4200-5

Date Collected: 02/23/23 09:30

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 09:25	03/08/23 22:17	1
Toluene	0.000598	J	0.00199	0.000453 mg/Kg		03/08/23 09:25	03/08/23 22:17	1
Ethylbenzene	<0.00199	U	0.00199	0.000562 mg/Kg		03/08/23 09:25	03/08/23 22:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 09:25	03/08/23 22:17	1
o-Xylene	0.000366	J	0.00199	0.000342 mg/Kg		03/08/23 09:25	03/08/23 22:17	1
Xylenes, Total	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 09:25	03/08/23 22:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			03/08/23 09:25	03/08/23 22:17	1
1,4-Difluorobenzene (Surr)	105		70 - 130			03/08/23 09:25	03/08/23 22:17	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	0.00100 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	76.1		50.0	15.0 mg/Kg			03/02/23 09:18	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	29.4	J	50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:30	1
Diesel Range Organics (Over C10-C28)	46.7	J	50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:30	1
Total TPH	76.1		50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			03/01/23 12:36	03/02/23 02:30	1
o-Terphenyl	110		70 - 130			03/01/23 12:36	03/02/23 02:30	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS55

Lab Sample ID: 890-4200-5

Date Collected: 02/23/23 09:30

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.6		4.97	0.393 mg/Kg			03/02/23 19:30	1

Client Sample ID: CS14

Lab Sample ID: 890-4200-6

Date Collected: 02/23/23 12:00

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000386 mg/Kg		03/08/23 09:25	03/08/23 22:37	1
Toluene	<0.00200	U	0.00200	0.000457 mg/Kg		03/08/23 09:25	03/08/23 22:37	1
Ethylbenzene	<0.00200	U	0.00200	0.000566 mg/Kg		03/08/23 09:25	03/08/23 22:37	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	0.00101 mg/Kg		03/08/23 09:25	03/08/23 22:37	1
o-Xylene	<0.00200	U	0.00200	0.000345 mg/Kg		03/08/23 09:25	03/08/23 22:37	1
Xylenes, Total	<0.00401	U	0.00401	0.00101 mg/Kg		03/08/23 09:25	03/08/23 22:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130			03/08/23 09:25	03/08/23 22:37	1
1,4-Difluorobenzene (Surr)	105		70 - 130			03/08/23 09:25	03/08/23 22:37	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	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	16.3	J	49.9	15.0 mg/Kg			03/02/23 09:18	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	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:52	1
Diesel Range Organics (Over C10-C28)	16.3	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:52	1
Total TPH	16.3	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 02:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			03/01/23 12:36	03/02/23 02:52	1
o-Terphenyl	118		70 - 130			03/01/23 12:36	03/02/23 02:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	518		5.05	0.399 mg/Kg			03/02/23 19:48	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS26

Lab Sample ID: 890-4200-7

Date Collected: 02/23/23 12:05

Matrix: Solid

Date Received: 02/27/23 09:30

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	0.000387 mg/Kg		03/08/23 09:25	03/08/23 22:58	1
Toluene	<0.00201	U	0.00201	0.000459 mg/Kg		03/08/23 09:25	03/08/23 22:58	1
Ethylbenzene	<0.00201	U	0.00201	0.000568 mg/Kg		03/08/23 09:25	03/08/23 22:58	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	0.00102 mg/Kg		03/08/23 09:25	03/08/23 22:58	1
o-Xylene	<0.00201	U	0.00201	0.000346 mg/Kg		03/08/23 09:25	03/08/23 22:58	1
Xylenes, Total	<0.00402	U	0.00402	0.00102 mg/Kg		03/08/23 09:25	03/08/23 22:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	03/08/23 09:25	03/08/23 22:58	1
1,4-Difluorobenzene (Surr)	108		70 - 130	03/08/23 09:25	03/08/23 22:58	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	0.00102 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	33.7	J	49.9	15.0 mg/Kg			03/02/23 09:18	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	33.7	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:13	1
Total TPH	33.7	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	03/01/23 12:36	03/02/23 03:13	1
o-Terphenyl	111		70 - 130	03/01/23 12:36	03/02/23 03:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38.2		4.97	0.393 mg/Kg			03/02/23 19:54	1

Client Sample ID: CS35

Lab Sample ID: 890-4200-8

Date Collected: 02/23/23 10:10

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 09:25	03/08/23 23:18	1
Toluene	0.000611	J	0.00199	0.000454 mg/Kg		03/08/23 09:25	03/08/23 23:18	1
Ethylbenzene	<0.00199	U	0.00199	0.000563 mg/Kg		03/08/23 09:25	03/08/23 23:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 09:25	03/08/23 23:18	1
o-Xylene	<0.00199	U	0.00199	0.000343 mg/Kg		03/08/23 09:25	03/08/23 23:18	1
Xylenes, Total	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 09:25	03/08/23 23:18	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS35

Lab Sample ID: 890-4200-8

Date Collected: 02/23/23 10:10

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130				03/08/23 09:25	03/08/23 23:18	1
1,4-Difluorobenzene (Surr)	107		70 - 130				03/08/23 09:25	03/08/23 23:18	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	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	58.1		49.9	15.0 mg/Kg			03/02/23 09:18	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	35.8	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:35	1
Diesel Range Organics (Over C10-C28)	22.3	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:35	1
Total TPH	58.1		49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:35	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130				03/01/23 12:36	03/02/23 03:35	1
o-Terphenyl	126		70 - 130				03/01/23 12:36	03/02/23 03:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		5.00	0.395 mg/Kg			03/02/23 20:01	1

Client Sample ID: CS15

Lab Sample ID: 890-4200-9

Date Collected: 02/23/23 13:40

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	0.000381 mg/Kg		03/08/23 09:25	03/08/23 23:39	1
Toluene	<0.00198	U	0.00198	0.000451 mg/Kg		03/08/23 09:25	03/08/23 23:39	1
Ethylbenzene	<0.00198	U	0.00198	0.000559 mg/Kg		03/08/23 09:25	03/08/23 23:39	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	0.00100 mg/Kg		03/08/23 09:25	03/08/23 23:39	1
o-Xylene	<0.00198	U	0.00198	0.000341 mg/Kg		03/08/23 09:25	03/08/23 23:39	1
Xylenes, Total	<0.00396	U	0.00396	0.00100 mg/Kg		03/08/23 09:25	03/08/23 23:39	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130				03/08/23 09:25	03/08/23 23:39	1
1,4-Difluorobenzene (Surr)	106		70 - 130				03/08/23 09:25	03/08/23 23:39	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	0.00100 mg/Kg			03/09/23 12:09	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS15

Lab Sample ID: 890-4200-9

Date Collected: 02/23/23 13:40

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	49.0	J	49.9	15.0 mg/Kg			03/02/23 09:18	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	29.6	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:56	1
Diesel Range Organics (Over C10-C28)	19.4	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:56	1
Total TPH	49.0	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 03:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			03/01/23 12:36	03/02/23 03:56	1
o-Terphenyl	110		70 - 130			03/01/23 12:36	03/02/23 03:56	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53.4		4.95	0.391 mg/Kg			03/02/23 20:07	1

Client Sample ID: CS36

Lab Sample ID: 890-4200-10

Date Collected: 02/23/23 13:45

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 09:25	03/08/23 23:59	1
Toluene	<0.00199	U	0.00199	0.000453 mg/Kg		03/08/23 09:25	03/08/23 23:59	1
Ethylbenzene	<0.00199	U	0.00199	0.000562 mg/Kg		03/08/23 09:25	03/08/23 23:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 09:25	03/08/23 23:59	1
o-Xylene	<0.00199	U	0.00199	0.000342 mg/Kg		03/08/23 09:25	03/08/23 23:59	1
Xylenes, Total	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 09:25	03/08/23 23:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130			03/08/23 09:25	03/08/23 23:59	1
1,4-Difluorobenzene (Surr)	102		70 - 130			03/08/23 09:25	03/08/23 23:59	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	0.00100 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	51.3		50.0	15.0 mg/Kg			03/02/23 09:18	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	27.6	J	50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 04:18	1
Diesel Range Organics (Over C10-C28)	23.7	J	50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 04:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 04:18	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS36

Lab Sample ID: 890-4200-10

Date Collected: 02/23/23 13:45

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	51.3		50.0	15.0 mg/Kg		03/01/23 12:36	03/02/23 04:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130			03/01/23 12:36	03/02/23 04:18	1
o-Terphenyl	108		70 - 130			03/01/23 12:36	03/02/23 04:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.1		4.96	0.392 mg/Kg			03/02/23 20:13	1

Client Sample ID: CS37

Lab Sample ID: 890-4200-11

Date Collected: 02/24/23 10:00

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 13:47	03/09/23 05:19	1
Toluene	<0.00199	U	0.00199	0.000454 mg/Kg		03/08/23 13:47	03/09/23 05:19	1
Ethylbenzene	<0.00199	U	0.00199	0.000563 mg/Kg		03/08/23 13:47	03/09/23 05:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 13:47	03/09/23 05:19	1
o-Xylene	<0.00199	U	0.00199	0.000343 mg/Kg		03/08/23 13:47	03/09/23 05:19	1
Xylenes, Total	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 13:47	03/09/23 05:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			03/08/23 13:47	03/09/23 05:19	1
1,4-Difluorobenzene (Surr)	102		70 - 130			03/08/23 13:47	03/09/23 05:19	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	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	48.2	J	49.9	15.0 mg/Kg			03/02/23 09:18	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	24.9	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 04:39	1
Diesel Range Organics (Over C10-C28)	23.3	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 04:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 04:39	1
Total TPH	48.2	J	49.9	15.0 mg/Kg		03/01/23 12:36	03/02/23 04:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			03/01/23 12:36	03/02/23 04:39	1
o-Terphenyl	114		70 - 130			03/01/23 12:36	03/02/23 04:39	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS37

Lab Sample ID: 890-4200-11

Date Collected: 02/24/23 10:00

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.0		4.98	0.393 mg/Kg			03/02/23 20:19	1

Client Sample ID: CS28

Lab Sample ID: 890-4200-12

Date Collected: 02/24/23 10:05

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	0.000381 mg/Kg		03/08/23 13:47	03/09/23 05:39	1
Toluene	<0.00198	U	0.00198	0.000451 mg/Kg		03/08/23 13:47	03/09/23 05:39	1
Ethylbenzene	<0.00198	U	0.00198	0.000559 mg/Kg		03/08/23 13:47	03/09/23 05:39	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	0.00100 mg/Kg		03/08/23 13:47	03/09/23 05:39	1
o-Xylene	<0.00198	U	0.00198	0.000341 mg/Kg		03/08/23 13:47	03/09/23 05:39	1
Xylenes, Total	<0.00396	U	0.00396	0.00100 mg/Kg		03/08/23 13:47	03/09/23 05:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			03/08/23 13:47	03/09/23 05:39	1
1,4-Difluorobenzene (Surr)	99		70 - 130			03/08/23 13:47	03/09/23 05:39	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	0.00100 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	76.0		49.9	15.0 mg/Kg			03/02/23 18:12	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	28.7	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 10:37	1
Diesel Range Organics (Over C10-C28)	27.4	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 10:37	1
Oil Range Organics (Over C28-C36)	19.9	J B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 10:37	1
Total TPH	76.0	B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 10:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			03/01/23 15:15	03/02/23 10:37	1
o-Terphenyl	161	S1+	70 - 130			03/01/23 15:15	03/02/23 10:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.8		5.00	0.395 mg/Kg			03/02/23 20:38	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS29

Lab Sample ID: 890-4200-13

Date Collected: 02/24/23 10:10

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 13:47	03/09/23 06:00	1
Toluene	0.000455	J	0.00199	0.000453 mg/Kg		03/08/23 13:47	03/09/23 06:00	1
Ethylbenzene	<0.00199	U	0.00199	0.000562 mg/Kg		03/08/23 13:47	03/09/23 06:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 13:47	03/09/23 06:00	1
o-Xylene	<0.00199	U	0.00199	0.000342 mg/Kg		03/08/23 13:47	03/09/23 06:00	1
Xylenes, Total	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 13:47	03/09/23 06:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	03/08/23 13:47	03/09/23 06:00	1
1,4-Difluorobenzene (Surr)	108		70 - 130	03/08/23 13:47	03/09/23 06:00	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	0.00100 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	76.8		49.9	15.0 mg/Kg			03/02/23 18:12	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	37.4	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 11:42	1
Diesel Range Organics (Over C10-C28)	21.7	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 11:42	1
Oil Range Organics (Over C28-C36)	17.7	J B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 11:42	1
Total TPH	76.8	B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 11:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	03/01/23 15:15	03/02/23 11:42	1
o-Terphenyl	149	S1+	70 - 130	03/01/23 15:15	03/02/23 11:42	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.7		4.97	0.393 mg/Kg			03/02/23 20:44	1

Client Sample ID: CS39

Lab Sample ID: 890-4200-14

Date Collected: 02/24/23 10:45

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000384 mg/Kg		03/08/23 13:47	03/09/23 06:20	1
Toluene	<0.00200	U	0.00200	0.000455 mg/Kg		03/08/23 13:47	03/09/23 06:20	1
Ethylbenzene	<0.00200	U	0.00200	0.000564 mg/Kg		03/08/23 13:47	03/09/23 06:20	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	0.00101 mg/Kg		03/08/23 13:47	03/09/23 06:20	1
o-Xylene	<0.00200	U	0.00200	0.000343 mg/Kg		03/08/23 13:47	03/09/23 06:20	1
Xylenes, Total	<0.00399	U	0.00399	0.00101 mg/Kg		03/08/23 13:47	03/09/23 06:20	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS39

Lab Sample ID: 890-4200-14

Date Collected: 02/24/23 10:45

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130				03/08/23 13:47	03/09/23 06:20	1
1,4-Difluorobenzene (Surr)	105		70 - 130				03/08/23 13:47	03/09/23 06:20	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	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	74.7		50.0	15.0 mg/Kg			03/02/23 18:12	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	43.2	J	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 12:03	1
Diesel Range Organics (Over C10-C28)	16.1	J	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 12:03	1
Oil Range Organics (Over C28-C36)	15.4	J B	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 12:03	1
Total TPH	74.7	B	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 12:03	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130				03/01/23 15:15	03/02/23 12:03	1
o-Terphenyl	136	S1+	70 - 130				03/01/23 15:15	03/02/23 12:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.4		5.04	0.398 mg/Kg			03/02/23 21:02	1

Client Sample ID: CS40

Lab Sample ID: 890-4200-15

Date Collected: 02/24/23 10:50

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	0.000387 mg/Kg		03/08/23 13:47	03/09/23 06:40	1
Toluene	<0.00201	U	0.00201	0.000459 mg/Kg		03/08/23 13:47	03/09/23 06:40	1
Ethylbenzene	<0.00201	U	0.00201	0.000568 mg/Kg		03/08/23 13:47	03/09/23 06:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	0.00102 mg/Kg		03/08/23 13:47	03/09/23 06:40	1
o-Xylene	<0.00201	U	0.00201	0.000346 mg/Kg		03/08/23 13:47	03/09/23 06:40	1
Xylenes, Total	<0.00402	U	0.00402	0.00102 mg/Kg		03/08/23 13:47	03/09/23 06:40	1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130				03/08/23 13:47	03/09/23 06:40	1
1,4-Difluorobenzene (Surr)	106		70 - 130				03/08/23 13:47	03/09/23 06:40	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	0.00102 mg/Kg			03/09/23 12:09	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS40

Lab Sample ID: 890-4200-15

Date Collected: 02/24/23 10:50

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	38.4	J	49.9	15.0 mg/Kg			03/02/23 18:12	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	21.7	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 12:25	1
Diesel Range Organics (Over C10-C28)	16.7	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 12:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 12:25	1
Total TPH	38.4	J B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	03/01/23 15:15	03/02/23 12:25	1
o-Terphenyl	135	S1+	70 - 130	03/01/23 15:15	03/02/23 12:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.3		4.99	0.394 mg/Kg			03/02/23 21:08	1

Client Sample ID: CS52

Lab Sample ID: 890-4200-16

Date Collected: 02/24/23 12:10

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000386 mg/Kg		03/08/23 13:47	03/09/23 07:01	1
Toluene	<0.00200	U	0.00200	0.000457 mg/Kg		03/08/23 13:47	03/09/23 07:01	1
Ethylbenzene	<0.00200	U	0.00200	0.000566 mg/Kg		03/08/23 13:47	03/09/23 07:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	0.00101 mg/Kg		03/08/23 13:47	03/09/23 07:01	1
o-Xylene	<0.00200	U	0.00200	0.000345 mg/Kg		03/08/23 13:47	03/09/23 07:01	1
Xylenes, Total	<0.00401	U	0.00401	0.00101 mg/Kg		03/08/23 13:47	03/09/23 07:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	03/08/23 13:47	03/09/23 07:01	1
1,4-Difluorobenzene (Surr)	107		70 - 130	03/08/23 13:47	03/09/23 07:01	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	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	47.3	J	49.9	15.0 mg/Kg			03/02/23 18:12	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	30.2	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 14:25	1
Diesel Range Organics (Over C10-C28)	17.1	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 14:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 14:25	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS52

Lab Sample ID: 890-4200-16

Date Collected: 02/24/23 12:10

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	47.3	J B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 14:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			03/01/23 15:15	03/02/23 14:25	1
o-Terphenyl	137	S1+	70 - 130			03/01/23 15:15	03/02/23 14:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	99.4		4.95	0.391 mg/Kg			03/02/23 21:14	1

Client Sample ID: CS51

Lab Sample ID: 890-4200-17

Date Collected: 02/24/23 13:15

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 13:47	03/09/23 07:21	1
Toluene	<0.00199	U	0.00199	0.000454 mg/Kg		03/08/23 13:47	03/09/23 07:21	1
Ethylbenzene	<0.00199	U	0.00199	0.000563 mg/Kg		03/08/23 13:47	03/09/23 07:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 13:47	03/09/23 07:21	1
o-Xylene	<0.00199	U	0.00199	0.000343 mg/Kg		03/08/23 13:47	03/09/23 07:21	1
Xylenes, Total	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 13:47	03/09/23 07:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			03/08/23 13:47	03/09/23 07:21	1
1,4-Difluorobenzene (Surr)	105		70 - 130			03/08/23 13:47	03/09/23 07:21	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	39.7	J	49.9	15.0 mg/Kg			03/02/23 18:12	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	24.7	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 14:47	1
Diesel Range Organics (Over C10-C28)	15.0	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 14:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 14:47	1
Total TPH	39.7	J B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 14:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			03/01/23 15:15	03/02/23 14:47	1
o-Terphenyl	136	S1+	70 - 130			03/01/23 15:15	03/02/23 14:47	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS51

Lab Sample ID: 890-4200-17

Date Collected: 02/24/23 13:15

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	135		5.05	0.399 mg/Kg			03/02/23 21:21	1

Client Sample ID: CS43

Lab Sample ID: 890-4200-18

Date Collected: 02/24/23 13:20

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 13:47	03/09/23 07:42	1
Toluene	0.000462	J	0.00199	0.000453 mg/Kg		03/08/23 13:47	03/09/23 07:42	1
Ethylbenzene	<0.00199	U	0.00199	0.000562 mg/Kg		03/08/23 13:47	03/09/23 07:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 13:47	03/09/23 07:42	1
o-Xylene	<0.00199	U	0.00199	0.000342 mg/Kg		03/08/23 13:47	03/09/23 07:42	1
Xylenes, Total	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 13:47	03/09/23 07:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			03/08/23 13:47	03/09/23 07:42	1
1,4-Difluorobenzene (Surr)	108		70 - 130			03/08/23 13:47	03/09/23 07:42	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	0.00100 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	30.6	J	49.8	14.9 mg/Kg			03/03/23 12:10	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	30.6	J	49.8	14.9 mg/Kg		03/01/23 15:15	03/02/23 15:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	14.9 mg/Kg		03/01/23 15:15	03/02/23 15:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	14.9 mg/Kg		03/01/23 15:15	03/02/23 15:58	1
Total TPH	30.6	J B	49.8	14.9 mg/Kg		03/01/23 15:15	03/02/23 15:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			03/01/23 15:15	03/02/23 15:58	1
o-Terphenyl	144	S1+	70 - 130			03/01/23 15:15	03/02/23 15:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	123		4.97	0.393 mg/Kg			03/02/23 21:27	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS48

Lab Sample ID: 890-4200-19

Date Collected: 02/24/23 13:50

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000384 mg/Kg		03/08/23 13:47	03/09/23 08:02	1
Toluene	0.000530	J	0.00200	0.000455 mg/Kg		03/08/23 13:47	03/09/23 08:02	1
Ethylbenzene	<0.00200	U	0.00200	0.000564 mg/Kg		03/08/23 13:47	03/09/23 08:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	0.00101 mg/Kg		03/08/23 13:47	03/09/23 08:02	1
o-Xylene	<0.00200	U	0.00200	0.000343 mg/Kg		03/08/23 13:47	03/09/23 08:02	1
Xylenes, Total	<0.00399	U	0.00399	0.00101 mg/Kg		03/08/23 13:47	03/09/23 08:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130			03/08/23 13:47	03/09/23 08:02	1
1,4-Difluorobenzene (Surr)	112		70 - 130			03/08/23 13:47	03/09/23 08:02	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	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	28.3	J	50.0	15.0 mg/Kg			03/03/23 12:10	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	28.3	J	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 16:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 16:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 16:20	1
Total TPH	28.3	J B	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 16:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			03/01/23 15:15	03/02/23 16:20	1
o-Terphenyl	132	S1+	70 - 130			03/01/23 15:15	03/02/23 16:20	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.4		4.95	0.391 mg/Kg			03/02/23 21:33	1

Client Sample ID: CS47

Lab Sample ID: 890-4200-20

Date Collected: 02/24/23 14:30

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	0.000387 mg/Kg		03/08/23 13:47	03/09/23 09:52	1
Toluene	<0.00201	U	0.00201	0.000459 mg/Kg		03/08/23 13:47	03/09/23 09:52	1
Ethylbenzene	<0.00201	U	0.00201	0.000568 mg/Kg		03/08/23 13:47	03/09/23 09:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	0.00102 mg/Kg		03/08/23 13:47	03/09/23 09:52	1
o-Xylene	0.000422	J	0.00201	0.000346 mg/Kg		03/08/23 13:47	03/09/23 09:52	1
Xylenes, Total	<0.00402	U	0.00402	0.00102 mg/Kg		03/08/23 13:47	03/09/23 09:52	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS47

Lab Sample ID: 890-4200-20

Date Collected: 02/24/23 14:30

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	03/08/23 13:47	03/09/23 09:52	1
1,4-Difluorobenzene (Surr)	104		70 - 130	03/08/23 13:47	03/09/23 09:52	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	0.00102 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	50.5		49.8	14.9 mg/Kg			03/03/23 12:10	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	29.8	J	49.8	14.9 mg/Kg		03/01/23 15:15	03/02/23 16:43	1
Diesel Range Organics (Over C10-C28)	20.7	J	49.8	14.9 mg/Kg		03/01/23 15:15	03/02/23 16:43	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	14.9 mg/Kg		03/01/23 15:15	03/02/23 16:43	1
Total TPH	50.5	B	49.8	14.9 mg/Kg		03/01/23 15:15	03/02/23 16:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	03/01/23 15:15	03/02/23 16:43	1
o-Terphenyl	127		70 - 130	03/01/23 15:15	03/02/23 16:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.2		5.00	0.395 mg/Kg			03/02/23 21:39	1

Client Sample ID: CS25

Lab Sample ID: 890-4200-21

Date Collected: 02/24/23 14:45

Matrix: Solid

Date Received: 02/27/23 09:30

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	0.000386 mg/Kg		03/08/23 13:47	03/09/23 10:13	1
Toluene	0.000576	J	0.00200	0.000457 mg/Kg		03/08/23 13:47	03/09/23 10:13	1
Ethylbenzene	<0.00200	U	0.00200	0.000566 mg/Kg		03/08/23 13:47	03/09/23 10:13	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	0.00101 mg/Kg		03/08/23 13:47	03/09/23 10:13	1
o-Xylene	<0.00200	U	0.00200	0.000345 mg/Kg		03/08/23 13:47	03/09/23 10:13	1
Xylenes, Total	<0.00401	U	0.00401	0.00101 mg/Kg		03/08/23 13:47	03/09/23 10:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	03/08/23 13:47	03/09/23 10:13	1
1,4-Difluorobenzene (Surr)	98		70 - 130	03/08/23 13:47	03/09/23 10:13	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	0.00101 mg/Kg			03/09/23 12:09	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS25

Lab Sample ID: 890-4200-21

Date Collected: 02/24/23 14:45

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	39.5	J	50.0	15.0 mg/Kg			03/03/23 12:10	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	23.6	J	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:05	1
Diesel Range Organics (Over C10-C28)	15.9	J	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:05	1
Total TPH	39.5	J B	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	03/01/23 15:15	03/02/23 17:05	1
o-Terphenyl	131	S1+	70 - 130	03/01/23 15:15	03/02/23 17:05	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.0		5.05	0.399 mg/Kg			03/02/23 20:14	1

Client Sample ID: CS21

Lab Sample ID: 890-4200-22

Date Collected: 02/24/23 15:05

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 13:47	03/09/23 10:33	1
Toluene	0.000615	J	0.00199	0.000454 mg/Kg		03/08/23 13:47	03/09/23 10:33	1
Ethylbenzene	<0.00199	U	0.00199	0.000563 mg/Kg		03/08/23 13:47	03/09/23 10:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 13:47	03/09/23 10:33	1
o-Xylene	0.000740	J	0.00199	0.000343 mg/Kg		03/08/23 13:47	03/09/23 10:33	1
Xylenes, Total	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 13:47	03/09/23 10:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	03/08/23 13:47	03/09/23 10:33	1
1,4-Difluorobenzene (Surr)	94		70 - 130	03/08/23 13:47	03/09/23 10:33	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00136	J	0.00398	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	59.6		49.9	15.0 mg/Kg			03/03/23 12:10	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	41.0	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:27	1
Diesel Range Organics (Over C10-C28)	18.6	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:27	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:27	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS21

Lab Sample ID: 890-4200-22

Date Collected: 02/24/23 15:05

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	59.6	B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			03/01/23 15:15	03/02/23 17:27	1
o-Terphenyl	142	S1+	70 - 130			03/01/23 15:15	03/02/23 17:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.8		5.00	0.395 mg/Kg			03/02/23 20:28	1

Client Sample ID: SW03

Lab Sample ID: 890-4200-23

Date Collected: 02/24/23 15:45

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 0 - 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 13:47	03/09/23 10:54	1
Toluene	<0.00199	U	0.00199	0.000453 mg/Kg		03/08/23 13:47	03/09/23 10:54	1
Ethylbenzene	<0.00199	U	0.00199	0.000562 mg/Kg		03/08/23 13:47	03/09/23 10:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 13:47	03/09/23 10:54	1
o-Xylene	<0.00199	U	0.00199	0.000342 mg/Kg		03/08/23 13:47	03/09/23 10:54	1
Xylenes, Total	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 13:47	03/09/23 10:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			03/08/23 13:47	03/09/23 10:54	1
1,4-Difluorobenzene (Surr)	104		70 - 130			03/08/23 13:47	03/09/23 10:54	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	0.00100 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	166		49.9	15.0 mg/Kg			03/03/23 12:10	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	26.1	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:48	1
Diesel Range Organics (Over C10-C28)	110		49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:48	1
Oil Range Organics (Over C28-C36)	29.6	J B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:48	1
Total TPH	166	B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 17:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			03/01/23 15:15	03/02/23 17:48	1
o-Terphenyl	140	S1+	70 - 130			03/01/23 15:15	03/02/23 17:48	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: SW03

Lab Sample ID: 890-4200-23

Date Collected: 02/24/23 15:45

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 0 - 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.7		4.99	0.394 mg/Kg			03/02/23 20:33	1

Client Sample ID: CS19

Lab Sample ID: 890-4200-24

Date Collected: 02/24/23 15:50

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 13:47	03/09/23 11:14	1
Toluene	<0.00199	U	0.00199	0.000454 mg/Kg		03/08/23 13:47	03/09/23 11:14	1
Ethylbenzene	<0.00199	U	0.00199	0.000563 mg/Kg		03/08/23 13:47	03/09/23 11:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 13:47	03/09/23 11:14	1
o-Xylene	<0.00199	U	0.00199	0.000343 mg/Kg		03/08/23 13:47	03/09/23 11:14	1
Xylenes, Total	<0.00398	U	0.00398	0.00101 mg/Kg		03/08/23 13:47	03/09/23 11:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			03/08/23 13:47	03/09/23 11:14	1
1,4-Difluorobenzene (Surr)	107		70 - 130			03/08/23 13:47	03/09/23 11:14	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	0.00101 mg/Kg			03/09/23 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	22.0	J	50.0	15.0 mg/Kg			03/03/23 12:10	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	22.0	J	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 18:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 18:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 18:10	1
Total TPH	22.0	J B	50.0	15.0 mg/Kg		03/01/23 15:15	03/02/23 18:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			03/01/23 15:15	03/02/23 18:10	1
o-Terphenyl	134	S1+	70 - 130			03/01/23 15:15	03/02/23 18:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.7		4.95	0.391 mg/Kg			03/02/23 20:38	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: SW04

Lab Sample ID: 890-4200-25

Date Collected: 02/24/23 15:55

Matrix: Solid

Date Received: 02/27/23 09:30

Sample Depth: 0 - 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383 mg/Kg		03/08/23 13:47	03/09/23 11:35	1
Toluene	0.000613	J	0.00199	0.000453 mg/Kg		03/08/23 13:47	03/09/23 11:35	1
Ethylbenzene	<0.00199	U	0.00199	0.000562 mg/Kg		03/08/23 13:47	03/09/23 11:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 13:47	03/09/23 11:35	1
o-Xylene	<0.00199	U	0.00199	0.000342 mg/Kg		03/08/23 13:47	03/09/23 11:35	1
Xylenes, Total	<0.00398	U	0.00398	0.00100 mg/Kg		03/08/23 13:47	03/09/23 11:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			03/08/23 13:47	03/09/23 11:35	1
1,4-Difluorobenzene (Surr)	105		70 - 130			03/08/23 13:47	03/09/23 11:35	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	0.00100 mg/Kg			03/09/23 13:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	90.9		49.9	15.0 mg/Kg			03/03/23 12:10	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	30.1	J	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 18:32	1
Diesel Range Organics (Over C10-C28)	60.8		49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 18:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 18:32	1
Total TPH	90.9	B	49.9	15.0 mg/Kg		03/01/23 15:15	03/02/23 18:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			03/01/23 15:15	03/02/23 18:32	1
o-Terphenyl	131	S1+	70 - 130			03/01/23 15:15	03/02/23 18:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.8		4.97	0.393 mg/Kg			03/02/23 20:43	1

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Surrogate Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
890-4200-1	SW01	133 S1+	96
890-4200-1 MS	SW01	118	102
890-4200-1 MSD	SW01	111	109
890-4200-2	SW02	115	94
890-4200-3	CS53	116	102
890-4200-4	CS54	114	104
890-4200-5	CS55	110	105
890-4200-6	CS14	117	105
890-4200-7	CS26	121	108
890-4200-8	CS35	119	107
890-4200-9	CS15	119	106
890-4200-10	CS36	118	102
890-4200-11	CS37	121	102
890-4200-12	CS28	114	99
890-4200-13	CS29	129	108
890-4200-14	CS39	116	105
890-4200-15	CS40	121	106
890-4200-16	CS52	123	107
890-4200-17	CS51	116	105
890-4200-18	CS43	121	108
890-4200-19	CS48	126	112
890-4200-20	CS47	111	104
890-4200-21	CS25	112	98
890-4200-22	CS21	112	94
890-4200-23	SW03	115	104
890-4200-24	CS19	120	107
890-4200-25	SW04	113	105
LCS 880-48091/1-A	Lab Control Sample	110	112
LCS 880-48127/1-A	Lab Control Sample	112	106
LCSD 880-48091/2-A	Lab Control Sample Dup	121	113
LCSD 880-48127/2-A	Lab Control Sample Dup	122	107
MB 880-48091/5-A	Method Blank	104	101
MB 880-48127/5-A	Method Blank	107	103
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	OTPH1
		(70-130)	(70-130)
890-4197-A-10-C MS	Matrix Spike	112	110
890-4197-A-10-D MSD	Matrix Spike Duplicate	110	108
890-4200-1	SW01	109	117
890-4200-2	SW02	102	112
890-4200-3	CS53	100	109
890-4200-4	CS54	95	103

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Surrogate Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4200-5	CS55	100	110
890-4200-6	CS14	105	118
890-4200-7	CS26	101	111
890-4200-8	CS35	113	126
890-4200-9	CS15	99	110
890-4200-10	CS36	96	108
890-4200-11	CS37	102	114
890-4200-12	CS28	125	161 S1+
890-4200-12 MS	CS28	116	141 S1+
890-4200-12 MSD	CS28	117	142 S1+
890-4200-13	CS29	109	149 S1+
890-4200-14	CS39	103	136 S1+
890-4200-15	CS40	102	135 S1+
890-4200-16	CS52	101	137 S1+
890-4200-17	CS51	101	136 S1+
890-4200-18	CS43	107	144 S1+
890-4200-19	CS48	100	132 S1+
890-4200-20	CS47	97	127
890-4200-21	CS25	98	131 S1+
890-4200-22	CS21	105	142 S1+
890-4200-23	SW03	104	140 S1+
890-4200-24	CS19	100	134 S1+
890-4200-25	SW04	98	131 S1+
LCS 880-47533/2-A	Lab Control Sample	96	102
LCS 880-47556/2-A	Lab Control Sample	107	137 S1+
LCSD 880-47533/3-A	Lab Control Sample Dup	99	106
LCSD 880-47556/3-A	Lab Control Sample Dup	116	148 S1+
MB 880-47533/1-A	Method Blank	114	128
MB 880-47556/1-A	Method Blank	116	154 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48091/5-A

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48091

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385 mg/Kg		03/08/23 09:25	03/08/23 15:45	1
Toluene	<0.00200	U	0.00200	0.000456 mg/Kg		03/08/23 09:25	03/08/23 15:45	1
Ethylbenzene	<0.00200	U	0.00200	0.000565 mg/Kg		03/08/23 09:25	03/08/23 15:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101 mg/Kg		03/08/23 09:25	03/08/23 15:45	1
o-Xylene	<0.00200	U	0.00200	0.000344 mg/Kg		03/08/23 09:25	03/08/23 15:45	1
Xylenes, Total	<0.00400	U	0.00400	0.00101 mg/Kg		03/08/23 09:25	03/08/23 15:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	03/08/23 09:25	03/08/23 15:45	1
1,4-Difluorobenzene (Surr)	101		70 - 130	03/08/23 09:25	03/08/23 15:45	1

Lab Sample ID: LCS 880-48091/1-A

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1112		mg/Kg		111	70 - 130
Toluene	0.100	0.1066		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1109		mg/Kg		111	70 - 130
m-Xylene & p-Xylene	0.200	0.2350		mg/Kg		117	70 - 130
o-Xylene	0.100	0.1122		mg/Kg		112	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: LCSD 880-48091/2-A

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 48091

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1204		mg/Kg		120	70 - 130	8	35
Toluene	0.100	0.1159		mg/Kg		116	70 - 130	8	35
Ethylbenzene	0.100	0.1207		mg/Kg		121	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2580		mg/Kg		129	70 - 130	9	35
o-Xylene	0.100	0.1245		mg/Kg		125	70 - 130	10	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 890-4200-1 MS

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: SW01

Prep Type: Total/NA

Prep Batch: 48091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1	0.100	0.06723	F1	mg/Kg		67	70 - 130
Toluene	0.00117	J	0.100	0.07278		mg/Kg		71	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

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

Lab Sample ID: 890-4200-1 MS

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: SW01

Prep Type: Total/NA

Prep Batch: 48091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.100	0.07974		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1666		mg/Kg		83	70 - 130
o-Xylene	<0.00202	U	0.100	0.08144		mg/Kg		81	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-4200-1 MSD

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: SW01

Prep Type: Total/NA

Prep Batch: 48091

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.0990	0.08763		mg/Kg		89	70 - 130	26	35
Toluene	0.00117	J	0.0990	0.08798		mg/Kg		88	70 - 130	19	35
Ethylbenzene	<0.00202	U	0.0990	0.08987		mg/Kg		91	70 - 130	12	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.1869		mg/Kg		94	70 - 130	12	35
o-Xylene	<0.00202	U	0.0990	0.09081		mg/Kg		92	70 - 130	11	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: MB 880-48127/5-A

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48127

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg	03/08/23 13:47	03/09/23 04:30	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg	03/08/23 13:47	03/09/23 04:30	1
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg	03/08/23 13:47	03/09/23 04:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg	03/08/23 13:47	03/09/23 04:30	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg	03/08/23 13:47	03/09/23 04:30	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg	03/08/23 13:47	03/09/23 04:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/08/23 13:47	03/09/23 04:30	1
1,4-Difluorobenzene (Surr)	103		70 - 130	03/08/23 13:47	03/09/23 04:30	1

Lab Sample ID: LCS 880-48127/1-A

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07568		mg/Kg		76	70 - 130
Toluene	0.100	0.07589		mg/Kg		76	70 - 130
Ethylbenzene	0.100	0.08066		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	0.200	0.1736		mg/Kg		87	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

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

Lab Sample ID: LCS 880-48127/1-A

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.08820		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-48127/2-A

Matrix: Solid

Analysis Batch: 48087

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 48127

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08912		mg/Kg		89	70 - 130	16	35
Toluene	0.100	0.08862		mg/Kg		89	70 - 130	15	35
Ethylbenzene	0.100	0.09492		mg/Kg		95	70 - 130	16	35
m-Xylene & p-Xylene	0.200	0.2050		mg/Kg		103	70 - 130	17	35
o-Xylene	0.100	0.1029		mg/Kg		103	70 - 130	15	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

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

Lab Sample ID: MB 880-47533/1-A

Matrix: Solid

Analysis Batch: 47501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 47533

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	15.0 mg/Kg		03/01/23 12:36	03/01/23 19:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 12:36	03/01/23 19:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.0 mg/Kg		03/01/23 12:36	03/01/23 19:43	1
Total TPH	<50.0	U	50.0	15.0 mg/Kg		03/01/23 12:36	03/01/23 19:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	03/01/23 12:36	03/01/23 19:43	1
o-Terphenyl	128		70 - 130	03/01/23 12:36	03/01/23 19:43	1

Lab Sample ID: LCS 880-47533/2-A

Matrix: Solid

Analysis Batch: 47501

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 47533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	856.4		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	910.2		mg/Kg		91	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

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

Lab Sample ID: LCS 880-47533/2-A
Matrix: Solid
Analysis Batch: 47501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 47533

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-47533/3-A
Matrix: Solid
Analysis Batch: 47501

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 47533

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	843.7		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	945.5		mg/Kg		95	70 - 130	4	20
Surrogate	LCSD	LCSD									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	99		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 890-4197-A-10-C MS
Matrix: Solid
Analysis Batch: 47501

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 47533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	29.6	J	998	970.3		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	19.7	J	998	1051		mg/Kg		103	70 - 130		
Surrogate	MS	MS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	112		70 - 130								
o-Terphenyl	110		70 - 130								

Lab Sample ID: 890-4197-A-10-D MSD
Matrix: Solid
Analysis Batch: 47501

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 47533

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	29.6	J	998	966.3		mg/Kg		94	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	19.7	J	998	1030		mg/Kg		101	70 - 130	2	20
Surrogate	MSD	MSD									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	110		70 - 130								
o-Terphenyl	108		70 - 130								

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

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

Lab Sample ID: MB 880-47556/1-A

Matrix: Solid

Analysis Batch: 47601

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 47556

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		03/01/23 15:15	03/02/23 08:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/01/23 15:15	03/02/23 08:06	1
Oil Range Organics (Over C28-C36)	23.08	J	50.0	mg/Kg		03/01/23 15:15	03/02/23 08:06	1
Total TPH	23.08	J	50.0	mg/Kg		03/01/23 15:15	03/02/23 08:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	03/01/23 15:15	03/02/23 08:06	1
o-Terphenyl	154	S1+	70 - 130	03/01/23 15:15	03/02/23 08:06	1

Lab Sample ID: LCS 880-47556/2-A

Matrix: Solid

Analysis Batch: 47601

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 47556

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1086		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1135		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	137	S1+	70 - 130

Lab Sample ID: LCSD 880-47556/3-A

Matrix: Solid

Analysis Batch: 47601

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 47556

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1088		mg/Kg		109	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	1231		mg/Kg		123	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	148	S1+	70 - 130

Lab Sample ID: 890-4200-12 MS

Matrix: Solid

Analysis Batch: 47601

Client Sample ID: CS28

Prep Type: Total/NA

Prep Batch: 47556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	28.7	J	999	1019		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	27.4	J	999	1207		mg/Kg		118	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

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

Lab Sample ID: 890-4200-12 MS

Matrix: Solid

Analysis Batch: 47601

Client Sample ID: CS28

Prep Type: Total/NA

Prep Batch: 47556

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	141	S1+	70 - 130

Lab Sample ID: 890-4200-12 MSD

Matrix: Solid

Analysis Batch: 47601

Client Sample ID: CS28

Prep Type: Total/NA

Prep Batch: 47556

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	28.7	J	998	1033		mg/Kg		101	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	27.4	J	998	1227		mg/Kg		120	70 - 130	2	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	142	S1+	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-47615/1-A

Matrix: Solid

Analysis Batch: 47673

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	0.395 mg/Kg			03/02/23 19:59	1

Lab Sample ID: LCS 880-47615/2-A

Matrix: Solid

Analysis Batch: 47673

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.4		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-47615/3-A

Matrix: Solid

Analysis Batch: 47673

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	256.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-4200-21 MS

Matrix: Solid

Analysis Batch: 47673

Client Sample ID: CS25

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	65.0		253	340.9		mg/Kg		109	90 - 110

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4200-21 MSD

Matrix: Solid

Analysis Batch: 47673

Client Sample ID: CS25

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	65.0		253	343.1		mg/Kg		110	90 - 110	1	20

Lab Sample ID: MB 880-47614/1-A

Matrix: Solid

Analysis Batch: 47675

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	0.395 mg/Kg			03/02/23 18:34	1

Lab Sample ID: LCS 880-47614/2-A

Matrix: Solid

Analysis Batch: 47675

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	233.2		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-47614/3-A

Matrix: Solid

Analysis Batch: 47675

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	233.2		mg/Kg		93	90 - 110	0	20

Lab Sample ID: 890-4200-1 MS

Matrix: Solid

Analysis Batch: 47675

Client Sample ID: SW01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	58.3		253	305.9		mg/Kg		98	90 - 110

Lab Sample ID: 890-4200-1 MSD

Matrix: Solid

Analysis Batch: 47675

Client Sample ID: SW01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	58.3		253	313.0		mg/Kg		101	90 - 110	2	20

Lab Sample ID: 890-4200-11 MS

Matrix: Solid

Analysis Batch: 47675

Client Sample ID: CS37

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	65.0		249	317.9		mg/Kg		102	90 - 110

Lab Sample ID: 890-4200-11 MSD

Matrix: Solid

Analysis Batch: 47675

Client Sample ID: CS37

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	65.0		249	318.1		mg/Kg		102	90 - 110	0	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

GC VOA

Analysis Batch: 48087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-1	SW01	Total/NA	Solid	8021B	48091
890-4200-2	SW02	Total/NA	Solid	8021B	48091
890-4200-3	CS53	Total/NA	Solid	8021B	48091
890-4200-4	CS54	Total/NA	Solid	8021B	48091
890-4200-5	CS55	Total/NA	Solid	8021B	48091
890-4200-6	CS14	Total/NA	Solid	8021B	48091
890-4200-7	CS26	Total/NA	Solid	8021B	48091
890-4200-8	CS35	Total/NA	Solid	8021B	48091
890-4200-9	CS15	Total/NA	Solid	8021B	48091
890-4200-10	CS36	Total/NA	Solid	8021B	48091
890-4200-11	CS37	Total/NA	Solid	8021B	48127
890-4200-12	CS28	Total/NA	Solid	8021B	48127
890-4200-13	CS29	Total/NA	Solid	8021B	48127
890-4200-14	CS39	Total/NA	Solid	8021B	48127
890-4200-15	CS40	Total/NA	Solid	8021B	48127
890-4200-16	CS52	Total/NA	Solid	8021B	48127
890-4200-17	CS51	Total/NA	Solid	8021B	48127
890-4200-18	CS43	Total/NA	Solid	8021B	48127
890-4200-19	CS48	Total/NA	Solid	8021B	48127
890-4200-20	CS47	Total/NA	Solid	8021B	48127
890-4200-21	CS25	Total/NA	Solid	8021B	48127
890-4200-22	CS21	Total/NA	Solid	8021B	48127
890-4200-23	SW03	Total/NA	Solid	8021B	48127
890-4200-24	CS19	Total/NA	Solid	8021B	48127
890-4200-25	SW04	Total/NA	Solid	8021B	48127
MB 880-48091/5-A	Method Blank	Total/NA	Solid	8021B	48091
MB 880-48127/5-A	Method Blank	Total/NA	Solid	8021B	48127
LCS 880-48091/1-A	Lab Control Sample	Total/NA	Solid	8021B	48091
LCS 880-48127/1-A	Lab Control Sample	Total/NA	Solid	8021B	48127
LCSD 880-48091/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48091
LCSD 880-48127/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48127
890-4200-1 MS	SW01	Total/NA	Solid	8021B	48091
890-4200-1 MSD	SW01	Total/NA	Solid	8021B	48091

Prep Batch: 48091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-1	SW01	Total/NA	Solid	5035	
890-4200-2	SW02	Total/NA	Solid	5035	
890-4200-3	CS53	Total/NA	Solid	5035	
890-4200-4	CS54	Total/NA	Solid	5035	
890-4200-5	CS55	Total/NA	Solid	5035	
890-4200-6	CS14	Total/NA	Solid	5035	
890-4200-7	CS26	Total/NA	Solid	5035	
890-4200-8	CS35	Total/NA	Solid	5035	
890-4200-9	CS15	Total/NA	Solid	5035	
890-4200-10	CS36	Total/NA	Solid	5035	
MB 880-48091/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48091/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48091/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4200-1 MS	SW01	Total/NA	Solid	5035	
890-4200-1 MSD	SW01	Total/NA	Solid	5035	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

GC VOA

Prep Batch: 48127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-11	CS37	Total/NA	Solid	5035	
890-4200-12	CS28	Total/NA	Solid	5035	
890-4200-13	CS29	Total/NA	Solid	5035	
890-4200-14	CS39	Total/NA	Solid	5035	
890-4200-15	CS40	Total/NA	Solid	5035	
890-4200-16	CS52	Total/NA	Solid	5035	
890-4200-17	CS51	Total/NA	Solid	5035	
890-4200-18	CS43	Total/NA	Solid	5035	
890-4200-19	CS48	Total/NA	Solid	5035	
890-4200-20	CS47	Total/NA	Solid	5035	
890-4200-21	CS25	Total/NA	Solid	5035	
890-4200-22	CS21	Total/NA	Solid	5035	
890-4200-23	SW03	Total/NA	Solid	5035	
890-4200-24	CS19	Total/NA	Solid	5035	
890-4200-25	SW04	Total/NA	Solid	5035	
MB 880-48127/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48127/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48127/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 48215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-1	SW01	Total/NA	Solid	Total BTEX	
890-4200-2	SW02	Total/NA	Solid	Total BTEX	
890-4200-3	CS53	Total/NA	Solid	Total BTEX	
890-4200-4	CS54	Total/NA	Solid	Total BTEX	
890-4200-5	CS55	Total/NA	Solid	Total BTEX	
890-4200-6	CS14	Total/NA	Solid	Total BTEX	
890-4200-7	CS26	Total/NA	Solid	Total BTEX	
890-4200-8	CS35	Total/NA	Solid	Total BTEX	
890-4200-9	CS15	Total/NA	Solid	Total BTEX	
890-4200-10	CS36	Total/NA	Solid	Total BTEX	
890-4200-11	CS37	Total/NA	Solid	Total BTEX	
890-4200-12	CS28	Total/NA	Solid	Total BTEX	
890-4200-13	CS29	Total/NA	Solid	Total BTEX	
890-4200-14	CS39	Total/NA	Solid	Total BTEX	
890-4200-15	CS40	Total/NA	Solid	Total BTEX	
890-4200-16	CS52	Total/NA	Solid	Total BTEX	
890-4200-17	CS51	Total/NA	Solid	Total BTEX	
890-4200-18	CS43	Total/NA	Solid	Total BTEX	
890-4200-19	CS48	Total/NA	Solid	Total BTEX	
890-4200-20	CS47	Total/NA	Solid	Total BTEX	
890-4200-21	CS25	Total/NA	Solid	Total BTEX	
890-4200-22	CS21	Total/NA	Solid	Total BTEX	
890-4200-23	SW03	Total/NA	Solid	Total BTEX	
890-4200-24	CS19	Total/NA	Solid	Total BTEX	
890-4200-25	SW04	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

GC Semi VOA

Analysis Batch: 47501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-1	SW01	Total/NA	Solid	8015B NM	47533
890-4200-2	SW02	Total/NA	Solid	8015B NM	47533
890-4200-3	CS53	Total/NA	Solid	8015B NM	47533
890-4200-4	CS54	Total/NA	Solid	8015B NM	47533
890-4200-5	CS55	Total/NA	Solid	8015B NM	47533
890-4200-6	CS14	Total/NA	Solid	8015B NM	47533
890-4200-7	CS26	Total/NA	Solid	8015B NM	47533
890-4200-8	CS35	Total/NA	Solid	8015B NM	47533
890-4200-9	CS15	Total/NA	Solid	8015B NM	47533
890-4200-10	CS36	Total/NA	Solid	8015B NM	47533
890-4200-11	CS37	Total/NA	Solid	8015B NM	47533
MB 880-47533/1-A	Method Blank	Total/NA	Solid	8015B NM	47533
LCS 880-47533/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47533
LCSD 880-47533/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47533
890-4197-A-10-C MS	Matrix Spike	Total/NA	Solid	8015B NM	47533
890-4197-A-10-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	47533

Prep Batch: 47533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-1	SW01	Total/NA	Solid	8015NM Prep	
890-4200-2	SW02	Total/NA	Solid	8015NM Prep	
890-4200-3	CS53	Total/NA	Solid	8015NM Prep	
890-4200-4	CS54	Total/NA	Solid	8015NM Prep	
890-4200-5	CS55	Total/NA	Solid	8015NM Prep	
890-4200-6	CS14	Total/NA	Solid	8015NM Prep	
890-4200-7	CS26	Total/NA	Solid	8015NM Prep	
890-4200-8	CS35	Total/NA	Solid	8015NM Prep	
890-4200-9	CS15	Total/NA	Solid	8015NM Prep	
890-4200-10	CS36	Total/NA	Solid	8015NM Prep	
890-4200-11	CS37	Total/NA	Solid	8015NM Prep	
MB 880-47533/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47533/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47533/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4197-A-10-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4197-A-10-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 47556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-12	CS28	Total/NA	Solid	8015NM Prep	
890-4200-13	CS29	Total/NA	Solid	8015NM Prep	
890-4200-14	CS39	Total/NA	Solid	8015NM Prep	
890-4200-15	CS40	Total/NA	Solid	8015NM Prep	
890-4200-16	CS52	Total/NA	Solid	8015NM Prep	
890-4200-17	CS51	Total/NA	Solid	8015NM Prep	
890-4200-18	CS43	Total/NA	Solid	8015NM Prep	
890-4200-19	CS48	Total/NA	Solid	8015NM Prep	
890-4200-20	CS47	Total/NA	Solid	8015NM Prep	
890-4200-21	CS25	Total/NA	Solid	8015NM Prep	
890-4200-22	CS21	Total/NA	Solid	8015NM Prep	
890-4200-23	SW03	Total/NA	Solid	8015NM Prep	
890-4200-24	CS19	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

GC Semi VOA (Continued)

Prep Batch: 47556 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-25	SW04	Total/NA	Solid	8015NM Prep	
MB 880-47556/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-47556/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-47556/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4200-12 MS	CS28	Total/NA	Solid	8015NM Prep	
890-4200-12 MSD	CS28	Total/NA	Solid	8015NM Prep	

Analysis Batch: 47601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-12	CS28	Total/NA	Solid	8015B NM	47556
890-4200-13	CS29	Total/NA	Solid	8015B NM	47556
890-4200-14	CS39	Total/NA	Solid	8015B NM	47556
890-4200-15	CS40	Total/NA	Solid	8015B NM	47556
890-4200-16	CS52	Total/NA	Solid	8015B NM	47556
890-4200-17	CS51	Total/NA	Solid	8015B NM	47556
890-4200-18	CS43	Total/NA	Solid	8015B NM	47556
890-4200-19	CS48	Total/NA	Solid	8015B NM	47556
890-4200-20	CS47	Total/NA	Solid	8015B NM	47556
890-4200-21	CS25	Total/NA	Solid	8015B NM	47556
890-4200-22	CS21	Total/NA	Solid	8015B NM	47556
890-4200-23	SW03	Total/NA	Solid	8015B NM	47556
890-4200-24	CS19	Total/NA	Solid	8015B NM	47556
890-4200-25	SW04	Total/NA	Solid	8015B NM	47556
MB 880-47556/1-A	Method Blank	Total/NA	Solid	8015B NM	47556
LCS 880-47556/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	47556
LCSD 880-47556/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	47556
890-4200-12 MS	CS28	Total/NA	Solid	8015B NM	47556
890-4200-12 MSD	CS28	Total/NA	Solid	8015B NM	47556

Analysis Batch: 47613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-1	SW01	Total/NA	Solid	8015 NM	
890-4200-2	SW02	Total/NA	Solid	8015 NM	
890-4200-3	CS53	Total/NA	Solid	8015 NM	
890-4200-4	CS54	Total/NA	Solid	8015 NM	
890-4200-5	CS55	Total/NA	Solid	8015 NM	
890-4200-6	CS14	Total/NA	Solid	8015 NM	
890-4200-7	CS26	Total/NA	Solid	8015 NM	
890-4200-8	CS35	Total/NA	Solid	8015 NM	
890-4200-9	CS15	Total/NA	Solid	8015 NM	
890-4200-10	CS36	Total/NA	Solid	8015 NM	
890-4200-11	CS37	Total/NA	Solid	8015 NM	
890-4200-12	CS28	Total/NA	Solid	8015 NM	
890-4200-13	CS29	Total/NA	Solid	8015 NM	
890-4200-14	CS39	Total/NA	Solid	8015 NM	
890-4200-15	CS40	Total/NA	Solid	8015 NM	
890-4200-16	CS52	Total/NA	Solid	8015 NM	
890-4200-17	CS51	Total/NA	Solid	8015 NM	
890-4200-18	CS43	Total/NA	Solid	8015 NM	
890-4200-19	CS48	Total/NA	Solid	8015 NM	
890-4200-20	CS47	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

GC Semi VOA (Continued)

Analysis Batch: 47613 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-21	CS25	Total/NA	Solid	8015 NM	
890-4200-22	CS21	Total/NA	Solid	8015 NM	
890-4200-23	SW03	Total/NA	Solid	8015 NM	
890-4200-24	CS19	Total/NA	Solid	8015 NM	
890-4200-25	SW04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 47614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-1	SW01	Soluble	Solid	DI Leach	
890-4200-2	SW02	Soluble	Solid	DI Leach	
890-4200-3	CS53	Soluble	Solid	DI Leach	
890-4200-4	CS54	Soluble	Solid	DI Leach	
890-4200-5	CS55	Soluble	Solid	DI Leach	
890-4200-6	CS14	Soluble	Solid	DI Leach	
890-4200-7	CS26	Soluble	Solid	DI Leach	
890-4200-8	CS35	Soluble	Solid	DI Leach	
890-4200-9	CS15	Soluble	Solid	DI Leach	
890-4200-10	CS36	Soluble	Solid	DI Leach	
890-4200-11	CS37	Soluble	Solid	DI Leach	
890-4200-12	CS28	Soluble	Solid	DI Leach	
890-4200-13	CS29	Soluble	Solid	DI Leach	
890-4200-14	CS39	Soluble	Solid	DI Leach	
890-4200-15	CS40	Soluble	Solid	DI Leach	
890-4200-16	CS52	Soluble	Solid	DI Leach	
890-4200-17	CS51	Soluble	Solid	DI Leach	
890-4200-18	CS43	Soluble	Solid	DI Leach	
890-4200-19	CS48	Soluble	Solid	DI Leach	
890-4200-20	CS47	Soluble	Solid	DI Leach	
MB 880-47614/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47614/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47614/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4200-1 MS	SW01	Soluble	Solid	DI Leach	
890-4200-1 MSD	SW01	Soluble	Solid	DI Leach	
890-4200-11 MS	CS37	Soluble	Solid	DI Leach	
890-4200-11 MSD	CS37	Soluble	Solid	DI Leach	

Leach Batch: 47615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-21	CS25	Soluble	Solid	DI Leach	
890-4200-22	CS21	Soluble	Solid	DI Leach	
890-4200-23	SW03	Soluble	Solid	DI Leach	
890-4200-24	CS19	Soluble	Solid	DI Leach	
890-4200-25	SW04	Soluble	Solid	DI Leach	
MB 880-47615/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-47615/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-47615/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4200-21 MS	CS25	Soluble	Solid	DI Leach	
890-4200-21 MSD	CS25	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

HPLC/IC

Analysis Batch: 47673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-21	CS25	Soluble	Solid	300.0	47615
890-4200-22	CS21	Soluble	Solid	300.0	47615
890-4200-23	SW03	Soluble	Solid	300.0	47615
890-4200-24	CS19	Soluble	Solid	300.0	47615
890-4200-25	SW04	Soluble	Solid	300.0	47615
MB 880-47615/1-A	Method Blank	Soluble	Solid	300.0	47615
LCS 880-47615/2-A	Lab Control Sample	Soluble	Solid	300.0	47615
LCSD 880-47615/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47615
890-4200-21 MS	CS25	Soluble	Solid	300.0	47615
890-4200-21 MSD	CS25	Soluble	Solid	300.0	47615

Analysis Batch: 47675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4200-1	SW01	Soluble	Solid	300.0	47614
890-4200-2	SW02	Soluble	Solid	300.0	47614
890-4200-3	CS53	Soluble	Solid	300.0	47614
890-4200-4	CS54	Soluble	Solid	300.0	47614
890-4200-5	CS55	Soluble	Solid	300.0	47614
890-4200-6	CS14	Soluble	Solid	300.0	47614
890-4200-7	CS26	Soluble	Solid	300.0	47614
890-4200-8	CS35	Soluble	Solid	300.0	47614
890-4200-9	CS15	Soluble	Solid	300.0	47614
890-4200-10	CS36	Soluble	Solid	300.0	47614
890-4200-11	CS37	Soluble	Solid	300.0	47614
890-4200-12	CS28	Soluble	Solid	300.0	47614
890-4200-13	CS29	Soluble	Solid	300.0	47614
890-4200-14	CS39	Soluble	Solid	300.0	47614
890-4200-15	CS40	Soluble	Solid	300.0	47614
890-4200-16	CS52	Soluble	Solid	300.0	47614
890-4200-17	CS51	Soluble	Solid	300.0	47614
890-4200-18	CS43	Soluble	Solid	300.0	47614
890-4200-19	CS48	Soluble	Solid	300.0	47614
890-4200-20	CS47	Soluble	Solid	300.0	47614
MB 880-47614/1-A	Method Blank	Soluble	Solid	300.0	47614
LCS 880-47614/2-A	Lab Control Sample	Soluble	Solid	300.0	47614
LCSD 880-47614/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	47614
890-4200-1 MS	SW01	Soluble	Solid	300.0	47614
890-4200-1 MSD	SW01	Soluble	Solid	300.0	47614
890-4200-11 MS	CS37	Soluble	Solid	300.0	47614
890-4200-11 MSD	CS37	Soluble	Solid	300.0	47614

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Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: SW01

Lab Sample ID: 890-4200-1

Date Collected: 02/23/23 08:45

Matrix: Solid

Date Received: 02/27/23 09:30

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 17:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 00:43	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 18:53	CH	EET MID

Client Sample ID: SW02

Lab Sample ID: 890-4200-2

Date Collected: 02/23/23 08:50

Matrix: Solid

Date Received: 02/27/23 09:30

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 18:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 01:26	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 19:11	CH	EET MID

Client Sample ID: CS53

Lab Sample ID: 890-4200-3

Date Collected: 02/23/23 09:20

Matrix: Solid

Date Received: 02/27/23 09:30

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 18:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 01:47	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 19:18	CH	EET MID

Client Sample ID: CS54

Lab Sample ID: 890-4200-4

Date Collected: 02/23/23 09:25

Matrix: Solid

Date Received: 02/27/23 09:30

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 18:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS54

Lab Sample ID: 890-4200-4

Date Collected: 02/23/23 09:25

Matrix: Solid

Date Received: 02/27/23 09:30

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			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 02:09	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 19:24	CH	EET MID

Client Sample ID: CS55

Lab Sample ID: 890-4200-5

Date Collected: 02/23/23 09:30

Matrix: Solid

Date Received: 02/27/23 09:30

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 22:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 02:30	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 19:30	CH	EET MID

Client Sample ID: CS14

Lab Sample ID: 890-4200-6

Date Collected: 02/23/23 12:00

Matrix: Solid

Date Received: 02/27/23 09:30

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 22:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 02:52	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 19:48	CH	EET MID

Client Sample ID: CS26

Lab Sample ID: 890-4200-7

Date Collected: 02/23/23 12:05

Matrix: Solid

Date Received: 02/27/23 09:30

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 22:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 03:13	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS26**Lab Sample ID: 890-4200-7****Date Collected: 02/23/23 12:05****Matrix: Solid****Date Received: 02/27/23 09:30**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 19:54	CH	EET MID

Client Sample ID: CS35**Lab Sample ID: 890-4200-8****Date Collected: 02/23/23 10:10****Matrix: Solid****Date Received: 02/27/23 09:30**

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 23:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 03:35	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 20:01	CH	EET MID

Client Sample ID: CS15**Lab Sample ID: 890-4200-9****Date Collected: 02/23/23 13:40****Matrix: Solid****Date Received: 02/27/23 09:30**

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 23:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 03:56	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 20:07	CH	EET MID

Client Sample ID: CS36**Lab Sample ID: 890-4200-10****Date Collected: 02/23/23 13:45****Matrix: Solid****Date Received: 02/27/23 09:30**

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	48091	03/08/23 09:25	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/08/23 23:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 04:18	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 20:13	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS37**Lab Sample ID: 890-4200-11****Date Collected: 02/24/23 10:00****Matrix: Solid****Date Received: 02/27/23 09:30**

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 05:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 09:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47533	03/01/23 12:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47501	03/02/23 04:39	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 20:19	CH	EET MID

Client Sample ID: CS28**Lab Sample ID: 890-4200-12****Date Collected: 02/24/23 10:05****Matrix: Solid****Date Received: 02/27/23 09:30**

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 05:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 18:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 10:37	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 20:38	CH	EET MID

Client Sample ID: CS29**Lab Sample ID: 890-4200-13****Date Collected: 02/24/23 10:10****Matrix: Solid****Date Received: 02/27/23 09:30**

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 06:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 18:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 11:42	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 20:44	CH	EET MID

Client Sample ID: CS39**Lab Sample ID: 890-4200-14****Date Collected: 02/24/23 10:45****Matrix: Solid****Date Received: 02/27/23 09:30**

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 06:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS39

Lab Sample ID: 890-4200-14

Date Collected: 02/24/23 10:45

Matrix: Solid

Date Received: 02/27/23 09:30

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			47613	03/02/23 18:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 12:03	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 21:02	CH	EET MID

Client Sample ID: CS40

Lab Sample ID: 890-4200-15

Date Collected: 02/24/23 10:50

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 06:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 18:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 12:25	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 21:08	CH	EET MID

Client Sample ID: CS52

Lab Sample ID: 890-4200-16

Date Collected: 02/24/23 12:10

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 07:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 18:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 14:25	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 21:14	CH	EET MID

Client Sample ID: CS51

Lab Sample ID: 890-4200-17

Date Collected: 02/24/23 13:15

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 07:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/02/23 18:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 14:47	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS51

Lab Sample ID: 890-4200-17

Date Collected: 02/24/23 13:15

Matrix: Solid

Date Received: 02/27/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 21:21	CH	EET MID

Client Sample ID: CS43

Lab Sample ID: 890-4200-18

Date Collected: 02/24/23 13:20

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 07:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/03/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 15:58	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 21:27	CH	EET MID

Client Sample ID: CS48

Lab Sample ID: 890-4200-19

Date Collected: 02/24/23 13:50

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 08:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/03/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 16:20	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 21:33	CH	EET MID

Client Sample ID: CS47

Lab Sample ID: 890-4200-20

Date Collected: 02/24/23 14:30

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 09:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/03/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 16:43	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47614	03/02/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47675	03/02/23 21:39	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS25

Lab Sample ID: 890-4200-21

Date Collected: 02/24/23 14:45

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 10:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/03/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 17:05	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47673	03/02/23 20:14	CH	EET MID

Client Sample ID: CS21

Lab Sample ID: 890-4200-22

Date Collected: 02/24/23 15:05

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 10:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/03/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 17:27	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47673	03/02/23 20:28	CH	EET MID

Client Sample ID: SW03

Lab Sample ID: 890-4200-23

Date Collected: 02/24/23 15:45

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 10:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/03/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 17:48	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47673	03/02/23 20:33	CH	EET MID

Client Sample ID: CS19

Lab Sample ID: 890-4200-24

Date Collected: 02/24/23 15:50

Matrix: Solid

Date Received: 02/27/23 09:30

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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 11:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 12:09	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Client Sample ID: CS19
Date Collected: 02/24/23 15:50
Date Received: 02/27/23 09:30

Lab Sample ID: 890-4200-24
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			47613	03/03/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 18:10	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47673	03/02/23 20:38	CH	EET MID

Client Sample ID: SW04
Date Collected: 02/24/23 15:55
Date Received: 02/27/23 09:30

Lab Sample ID: 890-4200-25
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	48127	03/08/23 13:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48087	03/09/23 11:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48215	03/09/23 13:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			47613	03/03/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	47556	03/01/23 15:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	47601	03/02/23 18:32	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	47615	03/02/23 09:25	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	47673	03/02/23 20:43	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: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

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	EPA	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

EPA = US Environmental Protection Agency

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: Maverick Leamex 018

Job ID: 890-4200-1
SDG: 03D2057048

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4200-1	SW01	Solid	02/23/23 08:45	02/27/23 09:30	0 - 2
890-4200-2	SW02	Solid	02/23/23 08:50	02/27/23 09:30	0 - 2
890-4200-3	CS53	Solid	02/23/23 09:20	02/27/23 09:30	2
890-4200-4	CS54	Solid	02/23/23 09:25	02/27/23 09:30	2
890-4200-5	CS55	Solid	02/23/23 09:30	02/27/23 09:30	2
890-4200-6	CS14	Solid	02/23/23 12:00	02/27/23 09:30	2
890-4200-7	CS26	Solid	02/23/23 12:05	02/27/23 09:30	3
890-4200-8	CS35	Solid	02/23/23 10:10	02/27/23 09:30	2.5
890-4200-9	CS15	Solid	02/23/23 13:40	02/27/23 09:30	2
890-4200-10	CS36	Solid	02/23/23 13:45	02/27/23 09:30	2.5
890-4200-11	CS37	Solid	02/24/23 10:00	02/27/23 09:30	2.5
890-4200-12	CS28	Solid	02/24/23 10:05	02/27/23 09:30	2.5
890-4200-13	CS29	Solid	02/24/23 10:10	02/27/23 09:30	2.5
890-4200-14	CS39	Solid	02/24/23 10:45	02/27/23 09:30	2.5
890-4200-15	CS40	Solid	02/24/23 10:50	02/27/23 09:30	2.5
890-4200-16	CS52	Solid	02/24/23 12:10	02/27/23 09:30	2
890-4200-17	CS51	Solid	02/24/23 13:15	02/27/23 09:30	2.5
890-4200-18	CS43	Solid	02/24/23 13:20	02/27/23 09:30	2.5
890-4200-19	CS48	Solid	02/24/23 13:50	02/27/23 09:30	2.5
890-4200-20	CS47	Solid	02/24/23 14:30	02/27/23 09:30	2.5
890-4200-21	CS25	Solid	02/24/23 14:45	02/27/23 09:30	3
890-4200-22	CS21	Solid	02/24/23 15:05	02/27/23 09:30	2
890-4200-23	SW03	Solid	02/24/23 15:45	02/27/23 09:30	0 - 2
890-4200-24	CS19	Solid	02/24/23 15:50	02/27/23 09:30	2
890-4200-25	SW04	Solid	02/24/23 15:55	02/27/23 09:30	0 - 2



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Josh Adams	Bill to: (if different)	Josh Adams
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:	jadams@ensolum.com, dnikanorov@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:		Maverick Leamex 018		Turn Around		ANALYSIS REQUEST										Preservative Codes						
Project Number:	03D2057048			☒ Routine ☐ Rush	Pres. Code											None: NO DI Water: H ₂ O						
Project Location:	Lea County, NM			Due Date:												Cool: Cool MeOH: Me						
Sampler's Name:	Dmitry Nikanorov			TAT starts the day received by the lab, if received by 4:30pm												HCL: HC HNO ₃ : HN						
PO #:																H ₂ SO ₄ : H ₂ NaOH: Na						
SAMPLE RECEIPT		Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No											H ₃ PO ₄ : HP						
Samples Received Intact:	☒ Yes ☐ No	Thermometer ID:	TNW007													NaHSO ₄ : NABIS						
Cooler Custody Seals:	Yes ☐ No ☒ N/A	Correction Factor:	-0.2													Na ₂ S ₂ O ₃ : NaSO ₃						
Sample Custody Seals:	Yes ☐ No ☒ N/A	Temperature Reading:	1.2													Zn Acetate+NaOH: Zn						
Total Containers:		Corrected Temperature:	1.0													NaOH+Ascorbic Acid: SAPC						
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)											Sample Comments	
SW01		S	2/23/2023	8:45	0'-2'	Comp	1	x	x	x												
SW02		S	2/23/2023	8:50	0'-2'	Comp	1	x	x	x												
CS53		S	2/23/2023	9:20	2'	Comp	1	x	x	x												
CS54		S	2/23/2023	9:25	2'	Comp	1	x	x	x												
CS55		S	2/23/2023	9:30	2'	Comp	1	x	x	x												
CS14		S	2/23/2023	12:00	2'	Comp	1	x	x	x												
CS26		S	2/23/2023	12:05	3'	Comp	1	x	x	x												
CS35		S	2/23/2023	10:10	2.5'	Comp	1	x	x	x												
CS15		S	2/23/2023	13:40	2'	Comp	1	x	x	x												
CS36		S	2/23/2023	13:45	2.5'	Comp	1	x	x	x												

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti 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 <i>DN</i>	<i>Clare Ag</i>	2.27.23 930			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Josh Adams	Bill to: (if different)	Josh Adams
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:	jadams@ensolum.com, dnikanorov@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:		Turn Around		ANALYSIS REQUEST												Preservative Codes				
Project Number:	03D2057048	☒ Routine ☐ Rush		Pres. Code													None: NO	DI Water: H ₂ O		
Project Location:	Lea County, NM	Due Date:		Parameters	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)										Cool: Cool	MeOH: Me		
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm															HCL: HC	HNO ₃ : HN		
PO #:																	H ₂ SO ₄ : H ₂	NaOH: Na		
SAMPLE RECEIPT		Temp Blank:	Yes No														Wet Ice:	Yes No	H ₃ PO ₄ : HP	
Samples Received Intact:	Yes No	Thermometer ID:																	NaHSO ₄ : NABIS	
Cooler Custody Seals:	Yes No N/A	Correction Factor:				Na ₂ S ₂ O ₃ : NaSO ₃														
Sample Custody Seals:	Yes No N/A	Temperature Reading:				Zn Acetate+NaOH: Zn														
Total Containers:		Corrected Temperature:				NaOH+Ascorbic Acid: SAPC														
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)								Sample Comments			
CS37	S	2/24/2023	10:00	2.5'	Comp	1	x	x	x											
CS28	S	2/24/2023	10:05	2.5'	Comp	1	x	x	x											
CS29	S	2/24/2023	10:10	2.5'	Comp	1	x	x	x											
CS39	S	2/24/2023	10:45	2.5'	Comp	1	x	x	x											
CS40	S	2/24/2023	10:50	2.5'	Comp	1	x	x	x											
CS52	S	2/24/2023	12:10	2'	Comp	1	x	x	x											
CS51	S	2/24/2023	13:15	2.5'	Comp	1	x	x	x											
CS49	S	2/24/2023	13:20	2.5'	Comp	1	x	x	x											
CS48	S	2/24/2023	13:50	2.5'	Comp	1	x	x	x											
CS47	S	2/24/2023	14:30	2.5'	Comp	1	x	x	x											

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>PNV</i>	<i>Clare Gyp</i>	2-27-23 9:30	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2



Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 3 of 3

Project Manager:	Josh Adams	Bill to: (if different)	Josh Adams
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:	jadams@ensolum.com. dnikanorov@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:			

[illegible]

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	<i>DN</i>	<i>Clare Giff</i>		<i>2.27.23</i>	2				
3					4				
5					6				

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4200-1

SDG Number: 03D2057048

Login Number: 4200

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: 890-4200-1

SDG Number: 03D2057048

Login Number: 4200

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 02/28/23 11:19 AM

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



Environment Testing

- 1
- 2
- 3
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- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 3/30/2023 2:16:50 PM

JOB DESCRIPTION

Maverick Leamex 018
SDG NUMBER Lea County NM

JOB NUMBER

890-4346-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

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Authorized for release by
Jessica Kramer, Project Manager
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Client: Ensolum
Project/Site: Maverick Leamex 018

Laboratory Job ID: 890-4346-1
SDG: Lea County NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	16
Lab Chronicle	19
Certification Summary	21
Method Summary	22
Sample Summary	23
Chain of Custody	24
Receipt Checklists	25

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
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
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Job ID: 890-4346-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-4346-1**

Receipt

The samples were received on 3/17/2023 9:07 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: CS45A (890-4346-1), CS49A (890-4346-2), CS53A (890-4346-3), SW06 (890-4346-4) and SW07 (890-4346-5).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: CS45A (890-4346-1), (890-4353-A-34-C), (890-4353-A-34-A MS) and (890-4353-A-34-B MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49613 and analytical batch 880-49785 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is 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: Surrogate recovery for the following sample was outside control limits: (MB 880-49383/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Client Sample ID: CS45A

Lab Sample ID: 890-4346-1

Date Collected: 03/16/23 10:20

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 2.25

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		03/24/23 14:10	03/28/23 23:14	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 23:14	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 23:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/28/23 23:14	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 23:14	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/28/23 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	161	S1+	70 - 130	03/24/23 14:10	03/28/23 23:14	1
1,4-Difluorobenzene (Surr)	94		70 - 130	03/24/23 14:10	03/28/23 23:14	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			03/29/23 12:47	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			03/27/23 11:32	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		03/24/23 09:41	03/26/23 15:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 15:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	03/24/23 09:41	03/26/23 15:03	1
o-Terphenyl	118		70 - 130	03/24/23 09:41	03/26/23 15:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.5		5.04	mg/Kg			03/29/23 14:24	1

Client Sample ID: CS49A

Lab Sample ID: 890-4346-2

Date Collected: 03/16/23 10:30

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 1.75

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		03/27/23 11:12	03/29/23 12:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 12:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 12:40	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/27/23 11:12	03/29/23 12:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 12:40	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/27/23 11:12	03/29/23 12:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/27/23 11:12	03/29/23 12:40	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Client Sample ID: CS49A

Lab Sample ID: 890-4346-2

Date Collected: 03/16/23 10:30

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 1.75

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	03/27/23 11:12	03/29/23 12:40	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			03/29/23 16:32	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			03/27/23 11:32	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		03/24/23 09:41	03/26/23 15:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 15:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 15:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			03/24/23 09:41	03/26/23 15:25	1
o-Terphenyl	90		70 - 130			03/24/23 09:41	03/26/23 15:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.5		5.02	mg/Kg			03/29/23 14:29	1

Client Sample ID: CS53A

Lab Sample ID: 890-4346-3

Date Collected: 03/16/23 10:40

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 2.25

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		03/27/23 11:12	03/29/23 13:01	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/27/23 11:12	03/29/23 13:01	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/27/23 11:12	03/29/23 13:01	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/27/23 11:12	03/29/23 13:01	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/27/23 11:12	03/29/23 13:01	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/27/23 11:12	03/29/23 13:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	03/27/23 11:12	03/29/23 13:01	1
1,4-Difluorobenzene (Surr)	83		70 - 130	03/27/23 11:12	03/29/23 13:01	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			03/29/23 16:32	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			03/27/23 11:32	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Client Sample ID: CS53A

Lab Sample ID: 890-4346-3

Date Collected: 03/16/23 10:40

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 2.25

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		03/24/23 09:41	03/26/23 15:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 15:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 15:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			03/24/23 09:41	03/26/23 15:47	1
o-Terphenyl	103		70 - 130			03/24/23 09:41	03/26/23 15:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.2		4.99	mg/Kg			03/29/23 14:44	1

Client Sample ID: SW06

Lab Sample ID: 890-4346-4

Date Collected: 03/16/23 10:50

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0 - 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 13:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 13:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 13:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/27/23 11:12	03/29/23 13:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 13:21	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/27/23 11:12	03/29/23 13:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			03/27/23 11:12	03/29/23 13:21	1
1,4-Difluorobenzene (Surr)	94		70 - 130			03/27/23 11:12	03/29/23 13:21	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			03/29/23 16:32	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			03/27/23 11:32	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		03/24/23 09:41	03/26/23 16:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 16:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 16:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			03/24/23 09:41	03/26/23 16:32	1
o-Terphenyl	102		70 - 130			03/24/23 09:41	03/26/23 16:32	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Client Sample ID: SW06

Lab Sample ID: 890-4346-4

Date Collected: 03/16/23 10:50

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0 - 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67.3		4.97	mg/Kg			03/29/23 14:48	1

Client Sample ID: SW07

Lab Sample ID: 890-4346-5

Date Collected: 03/16/23 11:00

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0 - 2

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		03/27/23 11:12	03/29/23 13:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/27/23 11:12	03/29/23 13:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/27/23 11:12	03/29/23 13:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/27/23 11:12	03/29/23 13:42	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/27/23 11:12	03/29/23 13:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/27/23 11:12	03/29/23 13:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			03/27/23 11:12	03/29/23 13:42	1
1,4-Difluorobenzene (Surr)	97		70 - 130			03/27/23 11:12	03/29/23 13:42	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			03/29/23 16:32	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			03/27/23 11:32	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		03/24/23 09:41	03/26/23 16:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 16:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 16:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			03/24/23 09:41	03/26/23 16:54	1
o-Terphenyl	86		70 - 130			03/24/23 09:41	03/26/23 16:54	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.4		5.00	mg/Kg			03/29/23 14:53	1

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Surrogate Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
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	DFBZ1				
		(70-130)	(70-130)				
890-4344-A-1-B MS	Matrix Spike	88	118				
890-4344-A-1-C MSD	Matrix Spike Duplicate	106	105				
890-4346-1	CS45A	161 S1+	94				
890-4346-2	CS49A	103	98				
890-4346-3	CS53A	95	83				
890-4346-4	SW06	99	94				
890-4346-5	SW07	103	97				
890-4353-A-34-A MS	Matrix Spike	143 S1+	94				
890-4353-A-34-B MSD	Matrix Spike Duplicate	138 S1+	99				
LCS 880-49447/1-A	Lab Control Sample	114	102				
LCS 880-49613/1-A	Lab Control Sample	106	108				
LCSD 880-49447/2-A	Lab Control Sample Dup	114	107				
LCSD 880-49613/2-A	Lab Control Sample Dup	102	113				
MB 880-49447/5-A	Method Blank	92	81				
MB 880-49613/5-A	Method Blank	74	82				
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	OTPH1				
		(70-130)	(70-130)				
890-4346-1	CS45A	107	118				
890-4346-2	CS49A	85	90				
890-4346-3	CS53A	98	103				
890-4346-4	SW06	95	102				
890-4346-5	SW07	81	86				
890-4350-A-5-B MS	Matrix Spike	104	97				
LCS 880-49383/2-A	Lab Control Sample	111	119				
LCSD 880-49383/3-A	Lab Control Sample Dup	107	115				
MB 880-49383/1-A	Method Blank	121	139 S1+				
Surrogate Legend							
1CO = 1-Chlorooctane							
OTPH = o-Terphenyl							

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49447/5-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49447

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/23 14:10	03/28/23 15:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	03/24/23 14:10	03/28/23 15:20	1
1,4-Difluorobenzene (Surr)	81		70 - 130	03/24/23 14:10	03/28/23 15:20	1

Lab Sample ID: LCS 880-49447/1-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1130		mg/Kg		113	70 - 130
Toluene	0.100	0.09973		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1082		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2222		mg/Kg		111	70 - 130
o-Xylene	0.100	0.1057		mg/Kg		106	70 - 130

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

Lab Sample ID: LCSD 880-49447/2-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1239		mg/Kg		124	70 - 130	9	35
Toluene	0.100	0.1039		mg/Kg		104	70 - 130	4	35
Ethylbenzene	0.100	0.1134		mg/Kg		113	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2319		mg/Kg		116	70 - 130	4	35
o-Xylene	0.100	0.1103		mg/Kg		110	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-4353-A-34-A MS

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1071		mg/Kg		107	70 - 130
Toluene	<0.00200	U	0.100	0.1079		mg/Kg		107	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

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

Lab Sample ID: 890-4353-A-34-A MS

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1227		mg/Kg		122	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.201	0.2515		mg/Kg		125	70 - 130
o-Xylene	<0.00200	U	0.100	0.1199		mg/Kg		119	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-4353-A-34-B MSD

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1282		mg/Kg		129	70 - 130	18	35
Toluene	<0.00200	U	0.0996	0.1114		mg/Kg		112	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.0996	0.1226		mg/Kg		123	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2519		mg/Kg		126	70 - 130	0	35
o-Xylene	<0.00200	U	0.0996	0.1190		mg/Kg		120	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: MB 880-49613/5-A

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49613

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/27/23 11:12	03/29/23 11:58	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	03/27/23 11:12	03/29/23 11:58	1
1,4-Difluorobenzene (Surr)	82		70 - 130	03/27/23 11:12	03/29/23 11:58	1

Lab Sample ID: LCS 880-49613/1-A

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1046		mg/Kg		105	70 - 130
Toluene	0.100	0.09913		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09684		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2063		mg/Kg		103	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-49613/1-A

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1040		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-49613/2-A

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1045		mg/Kg		105	70 - 130	0	35
Toluene	0.100	0.08648		mg/Kg		86	70 - 130	14	35
Ethylbenzene	0.100	0.07737		mg/Kg		77	70 - 130	22	35
m-Xylene & p-Xylene	0.200	0.1550		mg/Kg		77	70 - 130	28	35
o-Xylene	0.100	0.07896		mg/Kg		79	70 - 130	27	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 890-4344-A-1-B MS

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.09065		mg/Kg		91	70 - 130
Toluene	<0.00199	U F1	0.0998	0.06630	F1	mg/Kg		66	70 - 130
Ethylbenzene	<0.00199	U F2 F1	0.0998	0.05617	F1	mg/Kg		56	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1087	F1	mg/Kg		54	70 - 130
o-Xylene	<0.00199	U F2 F1	0.0998	0.05628	F1	mg/Kg		56	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	118		70 - 130

Lab Sample ID: 890-4344-A-1-C MSD

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.09456		mg/Kg		96	70 - 130	4	35
Toluene	<0.00199	U F1	0.0990	0.08943		mg/Kg		90	70 - 130	30	35
Ethylbenzene	<0.00199	U F2 F1	0.0990	0.08761	F2	mg/Kg		88	70 - 130	44	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.198	0.1814	F2	mg/Kg		92	70 - 130	50	35
o-Xylene	<0.00199	U F2 F1	0.0990	0.09115	F2	mg/Kg		92	70 - 130	47	35

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

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

Lab Sample ID: 890-4344-A-1-C MSD

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49613

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

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

Lab Sample ID: MB 880-49383/1-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49383

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil	Fac
1-Chlorooctane	121		70 - 130			03/24/23 09:41	03/26/23 08:27	1	
o-Terphenyl	139	S1+	70 - 130			03/24/23 09:41	03/26/23 08:27	1	

Lab Sample ID: LCS 880-49383/2-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49383

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	971.5		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	868.0		mg/Kg		87	70 - 130		
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	111		70 - 130						
o-Terphenyl	119		70 - 130						

Lab Sample ID: LCSD 880-49383/3-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49383

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.3		mg/Kg		89	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	752.9		mg/Kg		75	70 - 130	14	20
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	107		70 - 130						
o-Terphenyl	115		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

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

Lab Sample ID: 890-4350-A-5-B MS

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	928.2		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1002		mg/Kg		98	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	104		70 - 130						
o-Terphenyl	97		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49796/1-A

Matrix: Solid

Analysis Batch: 49897

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			03/29/23 12:48	1

Lab Sample ID: LCS 880-49796/2-A

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.5		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-49796/3-A

Matrix: Solid

Analysis Batch: 49897

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	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-4345-A-1-D MS

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	44.0		252	322.3		mg/Kg		110	90 - 110

Lab Sample ID: 890-4345-A-1-E MSD

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	44.0		252	321.9		mg/Kg		110	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

GC VOA

Prep Batch: 49447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-1	CS45A	Total/NA	Solid	5035	
MB 880-49447/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49447/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49447/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4353-A-34-A MS	Matrix Spike	Total/NA	Solid	5035	
890-4353-A-34-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 49613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-2	CS49A	Total/NA	Solid	5035	
890-4346-3	CS53A	Total/NA	Solid	5035	
890-4346-4	SW06	Total/NA	Solid	5035	
890-4346-5	SW07	Total/NA	Solid	5035	
MB 880-49613/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49613/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49613/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4344-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4344-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-1	CS45A	Total/NA	Solid	8021B	49447
MB 880-49447/5-A	Method Blank	Total/NA	Solid	8021B	49447
LCS 880-49447/1-A	Lab Control Sample	Total/NA	Solid	8021B	49447
LCSD 880-49447/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49447
890-4353-A-34-A MS	Matrix Spike	Total/NA	Solid	8021B	49447
890-4353-A-34-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49447

Analysis Batch: 49785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-2	CS49A	Total/NA	Solid	8021B	49613
890-4346-3	CS53A	Total/NA	Solid	8021B	49613
890-4346-4	SW06	Total/NA	Solid	8021B	49613
890-4346-5	SW07	Total/NA	Solid	8021B	49613
MB 880-49613/5-A	Method Blank	Total/NA	Solid	8021B	49613
LCS 880-49613/1-A	Lab Control Sample	Total/NA	Solid	8021B	49613
LCSD 880-49613/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49613
890-4344-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	49613
890-4344-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49613

Analysis Batch: 49844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-1	CS45A	Total/NA	Solid	Total BTEX	
890-4346-2	CS49A	Total/NA	Solid	Total BTEX	
890-4346-3	CS53A	Total/NA	Solid	Total BTEX	
890-4346-4	SW06	Total/NA	Solid	Total BTEX	
890-4346-5	SW07	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

GC Semi VOA

Prep Batch: 49383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-1	CS45A	Total/NA	Solid	8015NM Prep	
890-4346-2	CS49A	Total/NA	Solid	8015NM Prep	
890-4346-3	CS53A	Total/NA	Solid	8015NM Prep	
890-4346-4	SW06	Total/NA	Solid	8015NM Prep	
890-4346-5	SW07	Total/NA	Solid	8015NM Prep	
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-1	CS45A	Total/NA	Solid	8015B NM	49383
890-4346-2	CS49A	Total/NA	Solid	8015B NM	49383
890-4346-3	CS53A	Total/NA	Solid	8015B NM	49383
890-4346-4	SW06	Total/NA	Solid	8015B NM	49383
890-4346-5	SW07	Total/NA	Solid	8015B NM	49383
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015B NM	49383
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49383
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49383
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49383

Analysis Batch: 49627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-1	CS45A	Total/NA	Solid	8015 NM	
890-4346-2	CS49A	Total/NA	Solid	8015 NM	
890-4346-3	CS53A	Total/NA	Solid	8015 NM	
890-4346-4	SW06	Total/NA	Solid	8015 NM	
890-4346-5	SW07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-1	CS45A	Soluble	Solid	DI Leach	
890-4346-2	CS49A	Soluble	Solid	DI Leach	
890-4346-3	CS53A	Soluble	Solid	DI Leach	
890-4346-4	SW06	Soluble	Solid	DI Leach	
890-4346-5	SW07	Soluble	Solid	DI Leach	
MB 880-49796/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4345-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4345-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 49897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-1	CS45A	Soluble	Solid	300.0	49796
890-4346-2	CS49A	Soluble	Solid	300.0	49796
890-4346-3	CS53A	Soluble	Solid	300.0	49796
890-4346-4	SW06	Soluble	Solid	300.0	49796

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QC Association Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

HPLC/IC (Continued)

Analysis Batch: 49897 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4346-5	SW07	Soluble	Solid	300.0	49796
MB 880-49796/1-A	Method Blank	Soluble	Solid	300.0	49796
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	300.0	49796
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49796
890-4345-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	49796
890-4345-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49796

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Client Sample ID: CS45A

Lab Sample ID: 890-4346-1

Date Collected: 03/16/23 10:20

Matrix: Solid

Date Received: 03/17/23 09:07

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	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/28/23 23:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49844	03/29/23 12:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49627	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 15:03	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 14:24	SMC	EET MID

Client Sample ID: CS49A

Lab Sample ID: 890-4346-2

Date Collected: 03/16/23 10:30

Matrix: Solid

Date Received: 03/17/23 09:07

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	49613	03/27/23 11:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49785	03/29/23 12:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49844	03/29/23 16:32	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49627	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 15:25	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 14:29	SMC	EET MID

Client Sample ID: CS53A

Lab Sample ID: 890-4346-3

Date Collected: 03/16/23 10:40

Matrix: Solid

Date Received: 03/17/23 09:07

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	49613	03/27/23 11:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49785	03/29/23 13:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49844	03/29/23 16:32	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49627	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 15:47	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 14:44	SMC	EET MID

Client Sample ID: SW06

Lab Sample ID: 890-4346-4

Date Collected: 03/16/23 10:50

Matrix: Solid

Date Received: 03/17/23 09:07

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	49613	03/27/23 11:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49785	03/29/23 13:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49844	03/29/23 16:32	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Client Sample ID: SW06

Lab Sample ID: 890-4346-4

Date Collected: 03/16/23 10:50

Matrix: Solid

Date Received: 03/17/23 09:07

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			49627	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 16:32	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 14:48	SMC	EET MID

Client Sample ID: SW07

Lab Sample ID: 890-4346-5

Date Collected: 03/16/23 11:00

Matrix: Solid

Date Received: 03/17/23 09:07

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	49613	03/27/23 11:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49785	03/29/23 13:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49844	03/29/23 16:32	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49627	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 16:54	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 14:53	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: Maverick Leamex 018

Job ID: 890-4346-1
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	T104704400-22-25	06-30-23

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

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

- 1
- 2
- 3
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Method Summary

Client: Ensolum
Project/Site: Maverick Leamex 018

Job ID: 890-4346-1
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	EPA	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

EPA = US Environmental Protection Agency

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: Maverick Leamex 018

Job ID: 890-4346-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4346-1	CS45A	Solid	03/16/23 10:20	03/17/23 09:07	2.25
890-4346-2	CS49A	Solid	03/16/23 10:30	03/17/23 09:07	1.75
890-4346-3	CS53A	Solid	03/16/23 10:40	03/17/23 09:07	2.25
890-4346-4	SW06	Solid	03/16/23 10:50	03/17/23 09:07	0 - 2
890-4346-5	SW07	Solid	03/16/23 11:00	03/17/23 09:07	0 - 2

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Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kiennings@ensolum.com, dnikanorov@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:		Turn Around		ANALYSIS REQUEST										Preservative Codes							
Project Number:		☒ Routine ☐ Rush												None: NO DI Water: H ₂ O							
Project Location:		Due Date:												Cool: Cool MeOH: Me							
Sampler's Name:		TAT starts the day received by the lab, if received by 4:30pm												HCL: HC HNO ₃ : HN							
PO #:														H ₂ SO ₄ : H ₂ NaOH: Na							
SAMPLE RECEIPT		Temp Blank: ☒ Yes ☐ No		Wet Ice: ☒ Yes ☐ No												H ₃ PO ₄ : HP					
Samples Received Intact:		Thermometer ID:												NaHSO ₄ : NABIS							
Cooler Custody Seals:		Correction Factor:												Na ₂ S ₂ O ₃ : NaSO ₃							
Sample Custody Seals:		Temperature Reading:												Zn Acetate+NaOH: Zn							
Total Containers:		Corrected Temperature:												NaOH+Ascorbic Acid: SAPC							
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)											Sample Comments
CS45A		S	3/16/2023	10:20	2.25'	Comp	1	X	X	X											
CS49A		S	3/16/2023	10:30	1.75'	Comp	1	X	X	X											
CS53A		S	3/16/2023	10:40	2.25'	Comp	1	X	X	X											
SW06		S	3/16/2023	10:50	0-2'	Comp	1	X	X	X											
SW07		S	3/16/2023	11:00	0-2'	Comp	1	X	X	X											
DN																					

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 Ti 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 Ti 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 <i>DN</i>	<i>Clue</i>	3/17/23 9:07	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4346-1

SDG Number: Lea County NM

Login Number: 4346

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: 890-4346-1

SDG Number: Lea County NM

Login Number: 4346

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/20/23 08:25 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	



Environment Testing

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- 2
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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 2/3/2023 11:12:48 AM

JOB DESCRIPTION

Leaumex 018
SDG NUMBER Lea County, NM

JOB NUMBER

880-23888-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

Eurofins Midland**Job Notes**

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

Authorization

Generated
2/3/2023 11:12:48 AM

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

Client: Ensolum
Project/Site: Leaumex 018

Laboratory Job ID: 880-23888-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

1

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7

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10

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12

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14

Definitions/Glossary

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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.
α	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: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

Job ID: 880-23888-1

Laboratory: Eurofins Midland

Narrative

Job Narrative 880-23888-1

Receipt

The sample was received on 1/19/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

Receipt Exceptions

The following samples analyzed for method <FRACTION_METHOD> were received and analyzed from an unpreserved bulk soil jar: SS04 (880-23888-1).

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: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-45145 and analytical batch 880-45222 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28).

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 880-44664 and analytical batch 880-44719 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: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

Client Sample ID: SS04

Lab Sample ID: 880-23888-1

Date Collected: 01/18/23 12:36

Matrix: Solid

Date Received: 01/19/23 08:15

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 10:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 10:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 10:53	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/19/23 16:20	01/24/23 10:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 10:53	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/19/23 16:20	01/24/23 10:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130	01/19/23 16:20	01/24/23 10:53	1
1,4-Difluorobenzene (Surr)	83		70 - 130	01/19/23 16:20	01/24/23 10:53	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			01/24/23 13:50	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			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	01/31/23 14:03	02/02/23 19:03	1
o-Terphenyl	85		70 - 130	01/31/23 14:03	02/02/23 19:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U F1	5.01	mg/Kg			01/25/23 12:14	1

Eurofins Midland

Surrogate Summary

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
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)
880-23888-1	SS04	150 S1+	83
LCS 880-44389/1-A	Lab Control Sample	141 S1+	92
LCSD 880-44389/2-A	Lab Control Sample Dup	131 S1+	91
MB 880-44389/5-A	Method Blank	98	75
MB 880-44394/5-A	Method Blank	93	82
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23888-1	SS04	83	85
LCS 880-45145/2-A	Lab Control Sample	80	75
LCSD 880-45145/3-A	Lab Control Sample Dup	92	91
MB 880-45145/1-A	Method Blank	87	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44389/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44389

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/19/23 16:20	01/24/23 01:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	01/19/23 16:20	01/24/23 01:56	1
1,4-Difluorobenzene (Surr)	75		70 - 130	01/19/23 16:20	01/24/23 01:56	1

Lab Sample ID: LCS 880-44389/1-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 44389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1154		mg/Kg		115	70 - 130
Toluene	0.100	0.08920		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.07834		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1634		mg/Kg		82	70 - 130
o-Xylene	0.100	0.08474		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-44389/2-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 44389

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1216		mg/Kg		122	70 - 130	5	35
Toluene	0.100	0.1022		mg/Kg		102	70 - 130	14	35
Ethylbenzene	0.100	0.09859		mg/Kg		99	70 - 130	23	35
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130	26	35
o-Xylene	0.100	0.1073		mg/Kg		107	70 - 130	23	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: MB 880-44394/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44394

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-44394/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44394

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/19/23 16:42	01/23/23 12:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	01/19/23 16:42	01/23/23 12:08	1
1,4-Difluorobenzene (Surr)	82		70 - 130	01/19/23 16:42	01/23/23 12:08	1

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

Lab Sample ID: MB 880-45145/1-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45145

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	01/31/23 14:03	02/02/23 09:48	1
o-Terphenyl	91		70 - 130	01/31/23 14:03	02/02/23 09:48	1

Lab Sample ID: LCS 880-45145/2-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	716.6		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	999	910.1		mg/Kg		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	75		70 - 130

Lab Sample ID: LCSD 880-45145/3-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45145

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	1055	*1	mg/Kg		106	70 - 130	38	20
Diesel Range Organics (Over C10-C28)	999	1157	*1	mg/Kg		116	70 - 130	24	20

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-45145/3-A
Matrix: Solid
Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45145

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	91		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44664/1-A
Matrix: Solid
Analysis Batch: 44719

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			01/25/23 12:00	1

Lab Sample ID: LCS 880-44664/2-A
Matrix: Solid
Analysis Batch: 44719

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	%Rec
	Added	Result	Qualifier			Limits		Limits
Chloride	250	263.3		mg/Kg		105		90 - 110

Lab Sample ID: LCSD 880-44664/3-A
Matrix: Solid
Analysis Batch: 44719

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

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	%Rec	RPD	RPD
	Added	Result	Qualifier			Limits		Limits	RPD	Limit
Chloride	250	263.6		mg/Kg		105		90 - 110	0	20

Lab Sample ID: 880-23888-1 MS
Matrix: Solid
Analysis Batch: 44719

Client Sample ID: SS04
Prep Type: Soluble

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier			Limits		Limits
Chloride	<5.01	U F1	251	317.4	F1	mg/Kg		125		90 - 110

Lab Sample ID: 880-23888-1 MSD
Matrix: Solid
Analysis Batch: 44719

Client Sample ID: SS04
Prep Type: Soluble

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier			Limits		Limits	RPD	Limit
Chloride	<5.01	U F1	251	319.1	F1	mg/Kg		126		90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

GC VOA

Prep Batch: 44389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23888-1	SS04	Total/NA	Solid	5035	
MB 880-44389/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44389/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44389/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 44394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44394/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23888-1	SS04	Total/NA	Solid	8021B	44389
MB 880-44389/5-A	Method Blank	Total/NA	Solid	8021B	44389
MB 880-44394/5-A	Method Blank	Total/NA	Solid	8021B	44394
LCS 880-44389/1-A	Lab Control Sample	Total/NA	Solid	8021B	44389
LCSD 880-44389/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44389

Analysis Batch: 44643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23888-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23888-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23888-1	SS04	Total/NA	Solid	8015B NM	45145
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015B NM	45145
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45145
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45145

Analysis Batch: 45387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23888-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23888-1	SS04	Soluble	Solid	DI Leach	
MB 880-44664/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-23888-1 MS	SS04	Soluble	Solid	DI Leach	
880-23888-1 MSD	SS04	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 44719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23888-1	SS04	Soluble	Solid	300.0	44664
MB 880-44664/1-A	Method Blank	Soluble	Solid	300.0	44664
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	300.0	44664
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44664
880-23888-1 MS	SS04	Soluble	Solid	300.0	44664
880-23888-1 MSD	SS04	Soluble	Solid	300.0	44664

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Lab Chronicle

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

Client Sample ID: SS04
Date Collected: 01/18/23 12:36
Date Received: 01/19/23 08:15

Lab Sample ID: 880-23888-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44389	MNR	EET MID	01/19/23 16:20
Total/NA	Analysis	8021B		1	44514	MNR	EET MID	01/24/23 10:53
Total/NA	Analysis	Total BTEX		1	44643	AJ	EET MID	01/24/23 13:50
Total/NA	Analysis	8015 NM		1	45387	AJ	EET MID	02/03/23 11:49
Total/NA	Prep	8015NM Prep			45145	DM	EET MID	01/31/23 14:03
Total/NA	Analysis	8015B NM		1	45222	AJ	EET MID	02/02/23 19:03
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 12:14

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
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	T104704400-22-25	06-30-23

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

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

- 1
- 2
- 3
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- 13
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Method Summary

Client: Ensolum
Project/Site: Leaumex 018

Job ID: 880-23888-1
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	EPA	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

EPA = US Environmental Protection Agency

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: Leaumex 018

Job ID: 880-23888-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-23888-1	SS04	Solid	01/18/23 12:36	01/19/23 08:15	0.25'

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Environment Testing

Xenco

Chain of Custody

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

Work Order No:

23088

www.xenco.com Page 4 of 6

Project Manager:	Josh Adams	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N. Mainfield St. Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	303-517-8432	Email:	Kierans@ensolum.com Todams@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: _____		

[illegible]

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 Ti 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 Ti 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
		1/19/23 8:15			
3					
5					

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23888-1
SDG Number: Lea County, NM

Login Number: 23888

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

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	



Environment Testing

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- 2
- 3
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- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/3/2023 11:12:48 AM

JOB DESCRIPTION

Leamex 018

SDG NUMBER Lea County, NM

JOB NUMBER

880-23889-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701



Eurofins Midland**Job Notes**

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

Authorization

Generated
2/3/2023 11:12:48 AM

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: 880-23889-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: 880-23889-1
SDG: Lea County, NM

Job ID: 880-23889-1

Laboratory: Eurofins Midland

Narrative

**Job Narrative
880-23889-1**

Receipt

The sample was received on 1/19/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

Receipt Exceptions

The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-45145 and analytical batch 880-45222 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28).

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 880-44664 and analytical batch 880-44719 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: 880-23889-1
SDG: Lea County, NM

Client Sample ID: SS03

Lab Sample ID: 880-23889-1

Date Collected: 01/18/23 12:34

Matrix: Solid

Date Received: 01/19/23 08:15

Sample Depth: 0.24'

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		01/19/23 16:20	01/24/23 11:20	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/19/23 16:20	01/24/23 11:20	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/19/23 16:20	01/24/23 11:20	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/19/23 16:20	01/24/23 11:20	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/19/23 16:20	01/24/23 11:20	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/19/23 16:20	01/24/23 11:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	01/19/23 16:20	01/24/23 11:20	1
1,4-Difluorobenzene (Surr)	52	S1-	70 - 130	01/19/23 16:20	01/24/23 11:20	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			01/24/23 13:50	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			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	01/31/23 14:03	02/02/23 19:23	1
o-Terphenyl	78		70 - 130	01/31/23 14:03	02/02/23 19:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.10		4.99	mg/Kg			01/25/23 12:29	1

Eurofins Midland

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
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)
880-23889-1	SS03	132 S1+	52 S1-
LCS 880-44389/1-A	Lab Control Sample	141 S1+	92
LCSD 880-44389/2-A	Lab Control Sample Dup	131 S1+	91
MB 880-44389/5-A	Method Blank	98	75
MB 880-44394/5-A	Method Blank	93	82
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23889-1	SS03	79	78
LCS 880-45145/2-A	Lab Control Sample	80	75
LCSD 880-45145/3-A	Lab Control Sample Dup	92	91
MB 880-45145/1-A	Method Blank	87	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44389/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44389

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/19/23 16:20	01/24/23 01:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	01/19/23 16:20	01/24/23 01:56	1
1,4-Difluorobenzene (Surr)	75		70 - 130	01/19/23 16:20	01/24/23 01:56	1

Lab Sample ID: LCS 880-44389/1-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 44389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1154		mg/Kg		115	70 - 130
Toluene	0.100	0.08920		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.07834		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1634		mg/Kg		82	70 - 130
o-Xylene	0.100	0.08474		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-44389/2-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 44389

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1216		mg/Kg		122	70 - 130	5	35
Toluene	0.100	0.1022		mg/Kg		102	70 - 130	14	35
Ethylbenzene	0.100	0.09859		mg/Kg		99	70 - 130	23	35
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130	26	35
o-Xylene	0.100	0.1073		mg/Kg		107	70 - 130	23	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: MB 880-44394/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44394

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-44394/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44394

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/19/23 16:42	01/23/23 12:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	01/19/23 16:42	01/23/23 12:08	1
1,4-Difluorobenzene (Surr)	82		70 - 130	01/19/23 16:42	01/23/23 12:08	1

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

Lab Sample ID: MB 880-45145/1-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45145

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	01/31/23 14:03	02/02/23 09:48	1
o-Terphenyl	91		70 - 130	01/31/23 14:03	02/02/23 09:48	1

Lab Sample ID: LCS 880-45145/2-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	716.6		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	999	910.1		mg/Kg		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	75		70 - 130

Lab Sample ID: LCSD 880-45145/3-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45145

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	1055	*1	mg/Kg		106	70 - 130	38	20
Diesel Range Organics (Over C10-C28)	999	1157	*1	mg/Kg		116	70 - 130	24	20

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-45145/3-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45145

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	91		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44664/1-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<5.00	U	5.00	mg/Kg			01/25/23 12:00		1

Lab Sample ID: LCS 880-44664/2-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	263.3		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-44664/3-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Spike	LCSD	LCSD					%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
Chloride	250	263.6		mg/Kg		105	90 - 110	0	20		

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
SDG: Lea County, NM

GC VOA

Prep Batch: 44389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23889-1	SS03	Total/NA	Solid	5035	
MB 880-44389/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44389/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44389/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 44394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44394/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23889-1	SS03	Total/NA	Solid	8021B	44389
MB 880-44389/5-A	Method Blank	Total/NA	Solid	8021B	44389
MB 880-44394/5-A	Method Blank	Total/NA	Solid	8021B	44394
LCS 880-44389/1-A	Lab Control Sample	Total/NA	Solid	8021B	44389
LCSD 880-44389/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44389

Analysis Batch: 44644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23889-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23889-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23889-1	SS03	Total/NA	Solid	8015B NM	45145
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015B NM	45145
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45145
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45145

Analysis Batch: 45388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23889-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23889-1	SS03	Soluble	Solid	DI Leach	
MB 880-44664/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 44719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23889-1	SS03	Soluble	Solid	300.0	44664
MB 880-44664/1-A	Method Blank	Soluble	Solid	300.0	44664
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	300.0	44664
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44664

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- 12
- 13
- 14

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
SDG: Lea County, NM

Client Sample ID: SS03
Date Collected: 01/18/23 12:34
Date Received: 01/19/23 08:15

Lab Sample ID: 880-23889-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44389	MNR	EET MID	01/19/23 16:20
Total/NA	Analysis	8021B		1	44514	MNR	EET MID	01/24/23 11:20
Total/NA	Analysis	Total BTEX		1	44644	AJ	EET MID	01/24/23 13:50
Total/NA	Analysis	8015 NM		1	45388	AJ	EET MID	02/03/23 11:49
Total/NA	Prep	8015NM Prep			45145	DM	EET MID	01/31/23 14:03
Total/NA	Analysis	8015B NM		1	45222	AJ	EET MID	02/02/23 19:23
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 12:29

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: 880-23889-1
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	T104704400-22-25	06-30-23

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

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

- 1
- 2
- 3
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- 5
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- 11
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- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23889-1
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	EPA	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

EPA = US Environmental Protection Agency

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: 880-23889-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-23889-1	SS03	Solid	01/18/23 12:34	01/19/23 08:15	0.24'

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- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23889-1
SDG Number: Lea County, NM

Login Number: 23889

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

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	



Environment Testing

- 1
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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/3/2023 11:13:58 AM

JOB DESCRIPTION

Leamex 018

SDG NUMBER Lea County, NM

JOB NUMBER

880-23891-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.
Released to Imaging: 10/4/2023 10:23:56 AM



Eurofins Midland**Job Notes**

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

Authorization

Generated
2/3/2023 11:13:58 AM

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: 880-23891-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
SDG: Lea County, NM

Job ID: 880-23891-1

Laboratory: Eurofins Midland

Narrative

**Job Narrative
880-23891-1**

Receipt

The sample was received on 1/19/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

Receipt Exceptions

The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-45145 and analytical batch 880-45222 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28).

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 880-44664 and analytical batch 880-44719 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: 880-23891-1
SDG: Lea County, NM

Client Sample ID: SS02

Lab Sample ID: 880-23891-1

Date Collected: 01/18/23 12:32

Matrix: Solid

Date Received: 01/19/23 08:15

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0173		0.00199	mg/Kg		01/19/23 16:20	01/24/23 11:47	1
Toluene	0.00806		0.00199	mg/Kg		01/19/23 16:20	01/24/23 11:47	1
Ethylbenzene	0.0148		0.00199	mg/Kg		01/19/23 16:20	01/24/23 11:47	1
m-Xylene & p-Xylene	0.0450		0.00398	mg/Kg		01/19/23 16:20	01/24/23 11:47	1
o-Xylene	0.00487		0.00199	mg/Kg		01/19/23 16:20	01/24/23 11:47	1
Xylenes, Total	0.0499		0.00398	mg/Kg		01/19/23 16:20	01/24/23 11:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	21028	S1+	70 - 130	01/19/23 16:20	01/24/23 11:47	1
1,4-Difluorobenzene (Surr)	101		70 - 130	01/19/23 16:20	01/24/23 11:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0900		0.00398	mg/Kg			01/24/23 13:50	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			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130	01/31/23 14:03	02/02/23 19:44	1
o-Terphenyl	78		70 - 130	01/31/23 14:03	02/02/23 19:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/25/23 12:34	1

Eurofins Midland

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
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)
880-23891-1	SS02	21028	101
		S1+	
LCS 880-44389/1-A	Lab Control Sample	141 S1+	92
LCSD 880-44389/2-A	Lab Control Sample Dup	131 S1+	91
MB 880-44389/5-A	Method Blank	98	75
MB 880-44394/5-A	Method Blank	93	82
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23891-1	SS02	80	78
LCS 880-45145/2-A	Lab Control Sample	80	75
LCSD 880-45145/3-A	Lab Control Sample Dup	92	91
MB 880-45145/1-A	Method Blank	87	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44389/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44389

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/19/23 16:20	01/24/23 01:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	01/19/23 16:20	01/24/23 01:56	1
1,4-Difluorobenzene (Surr)	75		70 - 130	01/19/23 16:20	01/24/23 01:56	1

Lab Sample ID: LCS 880-44389/1-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 44389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1154		mg/Kg		115	70 - 130
Toluene	0.100	0.08920		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.07834		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1634		mg/Kg		82	70 - 130
o-Xylene	0.100	0.08474		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-44389/2-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 44389

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1216		mg/Kg		122	70 - 130	5	35
Toluene	0.100	0.1022		mg/Kg		102	70 - 130	14	35
Ethylbenzene	0.100	0.09859		mg/Kg		99	70 - 130	23	35
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130	26	35
o-Xylene	0.100	0.1073		mg/Kg		107	70 - 130	23	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: MB 880-44394/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44394

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-44394/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44394

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/19/23 16:42	01/23/23 12:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	01/19/23 16:42	01/23/23 12:08	1
1,4-Difluorobenzene (Surr)	82		70 - 130	01/19/23 16:42	01/23/23 12:08	1

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

Lab Sample ID: MB 880-45145/1-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45145

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	01/31/23 14:03	02/02/23 09:48	1
o-Terphenyl	91		70 - 130	01/31/23 14:03	02/02/23 09:48	1

Lab Sample ID: LCS 880-45145/2-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	716.6		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	999	910.1		mg/Kg		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	75		70 - 130

Lab Sample ID: LCSD 880-45145/3-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45145

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	1055	*1	mg/Kg		106	70 - 130	38	20
Diesel Range Organics (Over C10-C28)	999	1157	*1	mg/Kg		116	70 - 130	24	20

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-45145/3-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45145

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	91		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44664/1-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<5.00	U	5.00	mg/Kg			01/25/23 12:00		1

Lab Sample ID: LCS 880-44664/2-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	263.3		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-44664/3-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Spike	LCSD	LCSD					%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
Chloride	250	263.6		mg/Kg		105	90 - 110	0	20		

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
SDG: Lea County, NM

GC VOA

Prep Batch: 44389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23891-1	SS02	Total/NA	Solid	5035	
MB 880-44389/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44389/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44389/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 44394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44394/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23891-1	SS02	Total/NA	Solid	8021B	44389
MB 880-44389/5-A	Method Blank	Total/NA	Solid	8021B	44389
MB 880-44394/5-A	Method Blank	Total/NA	Solid	8021B	44394
LCS 880-44389/1-A	Lab Control Sample	Total/NA	Solid	8021B	44389
LCSD 880-44389/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44389

Analysis Batch: 44645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23891-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23891-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23891-1	SS02	Total/NA	Solid	8015B NM	45145
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015B NM	45145
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45145
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45145

Analysis Batch: 45389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23891-1	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23891-1	SS02	Soluble	Solid	DI Leach	
MB 880-44664/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 44719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23891-1	SS02	Soluble	Solid	300.0	44664
MB 880-44664/1-A	Method Blank	Soluble	Solid	300.0	44664
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	300.0	44664
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44664

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- 13
- 14

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
SDG: Lea County, NM

Client Sample ID: SS02
Date Collected: 01/18/23 12:32
Date Received: 01/19/23 08:15

Lab Sample ID: 880-23891-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44389	MNR	EET MID	01/19/23 16:20
Total/NA	Analysis	8021B		1	44514	MNR	EET MID	01/24/23 11:47
Total/NA	Analysis	Total BTEX		1	44645	AJ	EET MID	01/24/23 13:50
Total/NA	Analysis	8015 NM		1	45389	AJ	EET MID	02/03/23 11:49
Total/NA	Prep	8015NM Prep			45145	DM	EET MID	01/31/23 14:03
Total/NA	Analysis	8015B NM		1	45222	AJ	EET MID	02/02/23 19:44
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 12:34

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: 880-23891-1
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	T104704400-22-25	06-30-23

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23891-1
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	EPA	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

EPA = US Environmental Protection Agency

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: 880-23891-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-23891-1	SS02	Solid	01/18/23 12:32	01/19/23 08:15	0.25'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



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:

23891

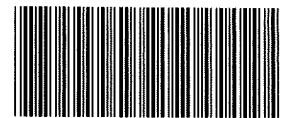
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Page 2 of 6

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

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

Project Name	Leamper 018	Turn Around		ANALYSIS REQUEST												Preservative Codes							
Project Number	03D2057048	☒ Routine ☐ Rush	Pres. Code														None NO	DI Water: H ₂ O					
Project Location	Lea County, NM	Due Date		Parameters	TPH	BTEX	Chlorides 300													Cool Cool	MeOH Me		
Sampler's Name	Samantha Markenzie	TAT starts the day received by the lab, if received by 4.30pm																		HCL HC	HNO ₃ HN		
PO #	03D2057048																			H ₂ SO ₄ H ₂	NaOH Na		
SAMPLE RECEIPT		Temp Blank.	Yes ☒ No ☐					Wet Ice	Yes ☒ No ☐													H ₃ PO ₄ HP	
Samples Received Intact:	Yes ☒ No ☐	Thermometer ID																				NaHSO ₄ NABIS	
Cooler Custody Seals.	Yes ☒ No ☐	Correction Factor																Na ₂ S ₂ O ₃ NaSO ₃					
Sample Custody Seals.	Yes ☒ No ☐	Temperature Reading																Zn Acetate+NaOH Zn					
Total Containers.		Corrected Temperature																NaOH+Ascorbic Acid SAPC					
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont													Sample Comments				
5502	S	11/18/23	1232	0.25'	C	1	X	X	X														
NFE																							
11/18/23																							
Sam																							



880-23891 Chain of Custody

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti 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 Ti 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 \$95.00 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		11/19/23 8:15	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23891-1
SDG Number: Lea County, NM

Login Number: 23891

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

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	



Environment Testing

- 1
- 2
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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 2/2/2023 1:13:49 PM

JOB DESCRIPTION

Leamex 018
SDG NUMBER Lea County, NM

JOB NUMBER

880-23892-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

Eurofins Midland**Job Notes**

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

Authorization

Generated
2/2/2023 1:13:49 PM

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: 880-23892-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	20
Lab Chronicle	23
Certification Summary	27
Method Summary	28
Sample Summary	29
Chain of Custody	30
Receipt Checklists	31

1
2
3
4
5
6
7
8
9
10
11
12
13
14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: 880-23892-1
SDG: Lea County, NM

Job ID: 880-23892-1

Laboratory: Eurofins Midland

Narrative

**Job Narrative
880-23892-1**

Receipt

The samples were received on 1/19/2023 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

Receipt Exceptions

The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

GC VOA

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44664 and analytical batch 880-44719 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: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-1

Lab Sample ID: 880-23892-1

Date Collected: 01/18/23 09:30

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/25/23 13:19	01/26/23 19:59	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 19:59	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 19:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/23 13:19	01/26/23 19:59	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 19:59	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/23 13:19	01/26/23 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/25/23 13:19	01/26/23 19:59	1
1,4-Difluorobenzene (Surr)	114		70 - 130	01/25/23 13:19	01/26/23 19:59	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			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/02/23 12:15	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		02/01/23 11:51	02/01/23 20:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 11:51	02/01/23 20:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 11:51	02/01/23 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	02/01/23 11:51	02/01/23 20:52	1
o-Terphenyl	106		70 - 130	02/01/23 11:51	02/01/23 20:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98	mg/Kg			01/25/23 12:39	1

Client Sample ID: CS-2

Lab Sample ID: 880-23892-2

Date Collected: 01/18/23 09:32

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/25/23 13:19	01/26/23 20:19	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/25/23 13:19	01/26/23 20:19	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/25/23 13:19	01/26/23 20:19	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/25/23 13:19	01/26/23 20:19	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/25/23 13:19	01/26/23 20:19	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/25/23 13:19	01/26/23 20:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	01/25/23 13:19	01/26/23 20:19	1
1,4-Difluorobenzene (Surr)	106		70 - 130	01/25/23 13:19	01/26/23 20:19	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-2

Lab Sample ID: 880-23892-2

Date Collected: 01/18/23 09:32

Matrix: Solid

Date Received: 01/19/23 08:15

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			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/02/23 12:15	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		02/01/23 11:51	02/01/23 21:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 21:57	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 21:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			02/01/23 11:51	02/01/23 21:57	1
o-Terphenyl	103		70 - 130			02/01/23 11:51	02/01/23 21:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53.0		4.95	mg/Kg			01/25/23 12:44	1

Client Sample ID: CS-3

Lab Sample ID: 880-23892-3

Date Collected: 01/18/23 09:35

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/25/23 13:19	01/26/23 20:39	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/25/23 13:19	01/26/23 20:39	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/25/23 13:19	01/26/23 20:39	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/25/23 13:19	01/26/23 20:39	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/25/23 13:19	01/26/23 20:39	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/25/23 13:19	01/26/23 20:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			01/25/23 13:19	01/26/23 20:39	1
1,4-Difluorobenzene (Surr)	116		70 - 130			01/25/23 13:19	01/26/23 20:39	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			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/02/23 12:15	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		02/01/23 11:51	02/01/23 22:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 11:51	02/01/23 22:19	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-3

Lab Sample ID: 880-23892-3

Date Collected: 01/18/23 09:35

Matrix: Solid

Date Received: 01/19/23 08:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 11:51	02/01/23 22:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			02/01/23 11:51	02/01/23 22:19	1
o-Terphenyl	103		70 - 130			02/01/23 11:51	02/01/23 22:19	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.5		5.05	mg/Kg			01/25/23 12:58	1

Client Sample ID: CS-4

Lab Sample ID: 880-23892-4

Date Collected: 01/18/23 09:37

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/25/23 13:19	01/26/23 21:00	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 21:00	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 21:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/23 13:19	01/26/23 21:00	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 21:00	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/23 13:19	01/26/23 21:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			01/25/23 13:19	01/26/23 21:00	1
1,4-Difluorobenzene (Surr)	115		70 - 130			01/25/23 13:19	01/26/23 21:00	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/02/23 12:15	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		02/01/23 11:51	02/01/23 22:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 11:51	02/01/23 22:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 11:51	02/01/23 22:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			02/01/23 11:51	02/01/23 22:40	1
o-Terphenyl	102		70 - 130			02/01/23 11:51	02/01/23 22:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.30		5.01	mg/Kg			01/25/23 13:03	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-5

Lab Sample ID: 880-23892-5

Date Collected: 01/18/23 09:41

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/25/23 13:19	01/26/23 21:20	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/25/23 13:19	01/26/23 21:20	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/25/23 13:19	01/26/23 21:20	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/25/23 13:19	01/26/23 21:20	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/25/23 13:19	01/26/23 21:20	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/25/23 13:19	01/26/23 21:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	01/25/23 13:19	01/26/23 21:20	1
1,4-Difluorobenzene (Surr)	111		70 - 130	01/25/23 13:19	01/26/23 21:20	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			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/02/23 12:15	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		02/01/23 11:51	02/01/23 23:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 23:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 23:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	02/01/23 11:51	02/01/23 23:03	1
o-Terphenyl	100		70 - 130	02/01/23 11:51	02/01/23 23:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.6		4.95	mg/Kg			01/25/23 13:08	1

Client Sample ID: CS-6

Lab Sample ID: 880-23892-6

Date Collected: 01/18/23 09:44

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/25/23 13:19	01/26/23 21:41	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 21:41	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 21:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/23 13:19	01/26/23 21:41	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 21:41	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/23 13:19	01/26/23 21:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/25/23 13:19	01/26/23 21:41	1
1,4-Difluorobenzene (Surr)	114		70 - 130	01/25/23 13:19	01/26/23 21:41	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-6

Lab Sample ID: 880-23892-6

Date Collected: 01/18/23 09:44

Matrix: Solid

Date Received: 01/19/23 08:15

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			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/02/23 12:15	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		02/01/23 11:51	02/01/23 23:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 23:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 23:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			02/01/23 11:51	02/01/23 23:25	1
o-Terphenyl	110		70 - 130			02/01/23 11:51	02/01/23 23:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	60.7		5.05	mg/Kg			01/25/23 13:13	1

Client Sample ID: CS-7

Lab Sample ID: 880-23892-7

Date Collected: 01/18/23 09:48

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/25/23 13:19	01/26/23 22:01	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/25/23 13:19	01/26/23 22:01	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/25/23 13:19	01/26/23 22:01	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/25/23 13:19	01/26/23 22:01	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/25/23 13:19	01/26/23 22:01	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/25/23 13:19	01/26/23 22:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			01/25/23 13:19	01/26/23 22:01	1
1,4-Difluorobenzene (Surr)	114		70 - 130			01/25/23 13:19	01/26/23 22:01	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			01/27/23 09:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/02/23 12:15	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		02/01/23 11:51	02/01/23 23:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 23:47	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-7

Lab Sample ID: 880-23892-7

Date Collected: 01/18/23 09:48

Matrix: Solid

Date Received: 01/19/23 08:15

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 23:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			02/01/23 11:51	02/01/23 23:47	1
o-Terphenyl	94		70 - 130			02/01/23 11:51	02/01/23 23:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.9		5.04	mg/Kg			01/25/23 13:18	1

Client Sample ID: CS-8

Lab Sample ID: 880-23892-8

Date Collected: 01/18/23 09:52

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/26/23 13:15	01/28/23 14:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/26/23 13:15	01/28/23 14:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/26/23 13:15	01/28/23 14:52	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/26/23 13:15	01/28/23 14:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/26/23 13:15	01/28/23 14:52	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/26/23 13:15	01/28/23 14:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			01/26/23 13:15	01/28/23 14:52	1
1,4-Difluorobenzene (Surr)	117		70 - 130			01/26/23 13:15	01/28/23 14:52	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			01/30/23 10:47	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			02/02/23 12:15	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		02/01/23 11:51	02/02/23 00:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/02/23 00:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/02/23 00:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			02/01/23 11:51	02/02/23 00:09	1
o-Terphenyl	97		70 - 130			02/01/23 11:51	02/02/23 00:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.6	F1	5.01	mg/Kg			01/25/23 13:22	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-9

Lab Sample ID: 880-23892-9

Date Collected: 01/18/23 09:55

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/26/23 13:15	01/28/23 15:13	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/26/23 13:15	01/28/23 15:13	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/26/23 13:15	01/28/23 15:13	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/26/23 13:15	01/28/23 15:13	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/26/23 13:15	01/28/23 15:13	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/26/23 13:15	01/28/23 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	01/26/23 13:15	01/28/23 15:13	1
1,4-Difluorobenzene (Surr)	118		70 - 130	01/26/23 13:15	01/28/23 15:13	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			01/30/23 10:47	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			02/02/23 12:15	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		02/01/23 11:51	02/02/23 00:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/02/23 00:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/02/23 00:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	02/01/23 11:51	02/02/23 00:31	1
o-Terphenyl	98		70 - 130	02/01/23 11:51	02/02/23 00:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.2		5.05	mg/Kg			01/25/23 13:37	1

Client Sample ID: CS-10

Lab Sample ID: 880-23892-10

Date Collected: 01/18/23 09:59

Matrix: Solid

Date Received: 01/19/23 08:15

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		01/26/23 13:15	01/28/23 15:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/26/23 13:15	01/28/23 15:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/26/23 13:15	01/28/23 15:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/26/23 13:15	01/28/23 15:34	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/26/23 13:15	01/28/23 15:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/26/23 13:15	01/28/23 15:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	01/26/23 13:15	01/28/23 15:34	1
1,4-Difluorobenzene (Surr)	116		70 - 130	01/26/23 13:15	01/28/23 15:34	1

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Client Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-10

Lab Sample ID: 880-23892-10

Date Collected: 01/18/23 09:59

Matrix: Solid

Date Received: 01/19/23 08:15

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			01/30/23 10:47	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			02/02/23 12:15	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		02/01/23 11:51	02/02/23 00:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 11:51	02/02/23 00:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 11:51	02/02/23 00:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			02/01/23 11:51	02/02/23 00:52	1
o-Terphenyl	94		70 - 130			02/01/23 11:51	02/02/23 00:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	87.7		4.96	mg/Kg			01/25/23 13:42	1

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
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)
880-23892-1	CS-1	111	114
880-23892-2	CS-2	106	106
880-23892-3	CS-3	109	116
880-23892-4	CS-4	111	115
880-23892-5	CS-5	105	111
880-23892-6	CS-6	108	114
880-23892-7	CS-7	103	114
880-23892-8	CS-8	104	117
880-23892-9	CS-9	103	118
880-23892-10	CS-10	104	116
LCS 880-44727/1-A	Lab Control Sample	98	111
LCS 880-44825/1-A	Lab Control Sample	92	114
LCSD 880-44727/2-A	Lab Control Sample Dup	96	111
LCSD 880-44825/2-A	Lab Control Sample Dup	96	112
MB 880-44727/5-A	Method Blank	100	108
MB 880-44733/5-A	Method Blank	98	113
MB 880-44825/5-A	Method Blank	101	112
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23892-1	CS-1	94	106
880-23892-1 MS	CS-1	110	115
880-23892-1 MSD	CS-1	107	112
880-23892-2	CS-2	92	103
880-23892-3	CS-3	91	103
880-23892-4	CS-4	92	102
880-23892-5	CS-5	88	100
880-23892-6	CS-6	102	110
880-23892-7	CS-7	85	94
880-23892-8	CS-8	87	97
880-23892-9	CS-9	88	98
880-23892-10	CS-10	86	94
LCS 880-45194/2-A	Lab Control Sample	77	80
LCSD 880-45194/3-A	Lab Control Sample Dup	84	88
MB 880-45194/1-A	Method Blank	107	121
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44727/5-A

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44727

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/25/23 13:19	01/26/23 13:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	01/25/23 13:19	01/26/23 13:35	1
1,4-Difluorobenzene (Surr)	108		70 - 130	01/25/23 13:19	01/26/23 13:35	1

Lab Sample ID: LCS 880-44727/1-A

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 44727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09183		mg/Kg		92	70 - 130
Toluene	0.100	0.08980		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08904		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1851		mg/Kg		93	70 - 130
o-Xylene	0.100	0.08836		mg/Kg		88	70 - 130

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

Lab Sample ID: LCSD 880-44727/2-A

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 44727

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09866		mg/Kg		99	70 - 130	7	35
Toluene	0.100	0.09468		mg/Kg		95	70 - 130	5	35
Ethylbenzene	0.100	0.09336		mg/Kg		93	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1911		mg/Kg		96	70 - 130	3	35
o-Xylene	0.100	0.09112		mg/Kg		91	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: MB 880-44733/5-A

Matrix: Solid

Analysis Batch: 44898

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44733

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/23 14:13	01/28/23 01:22	1

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-44733/5-A

Matrix: Solid

Analysis Batch: 44898

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44733

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/23 14:13	01/28/23 01:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/23 14:13	01/28/23 01:22	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/23 14:13	01/28/23 01:22	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/25/23 14:13	01/28/23 01:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	01/25/23 14:13	01/28/23 01:22	1
1,4-Difluorobenzene (Surr)	113		70 - 130	01/25/23 14:13	01/28/23 01:22	1

Lab Sample ID: MB 880-44825/5-A

Matrix: Solid

Analysis Batch: 44898

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44825

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/26/23 13:15	01/28/23 13:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/26/23 13:15	01/28/23 13:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/26/23 13:15	01/28/23 13:02	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/26/23 13:15	01/28/23 13:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	01/26/23 13:15	01/28/23 13:02	1
1,4-Difluorobenzene (Surr)	112		70 - 130	01/26/23 13:15	01/28/23 13:02	1

Lab Sample ID: LCS 880-44825/1-A

Matrix: Solid

Analysis Batch: 44898

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 44825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09823		mg/Kg		98	70 - 130
Toluene	0.100	0.08942		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.08453		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	0.200	0.1730		mg/Kg		87	70 - 130
o-Xylene	0.100	0.08428		mg/Kg		84	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	114		70 - 130

Lab Sample ID: LCSD 880-44825/2-A

Matrix: Solid

Analysis Batch: 44898

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 44825

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1003		mg/Kg		100	70 - 130	2	35
Toluene	0.100	0.09169		mg/Kg		92	70 - 130	3	35
Ethylbenzene	0.100	0.08666		mg/Kg		87	70 - 130	2	35

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-44825/2-A

Matrix: Solid

Analysis Batch: 44898

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 44825

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	0.200	0.1783		mg/Kg		89	70 - 130	3	35
o-Xylene	0.100	0.08701		mg/Kg		87	70 - 130	3	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	96		70 - 130						
1,4-Difluorobenzene (Surr)	112		70 - 130						

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

Lab Sample ID: MB 880-45194/1-A

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45194

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 19:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 19:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 19:48	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	107		70 - 130	02/01/23 11:51	02/01/23 19:48	1		
o-Terphenyl	121		70 - 130	02/01/23 11:51	02/01/23 19:48	1		

Lab Sample ID: LCS 880-45194/2-A

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	819.9		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	999	979.6		mg/Kg		98	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	77		70 - 130						
o-Terphenyl	80		70 - 130						

Lab Sample ID: LCSD 880-45194/3-A

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45194

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	994.2		mg/Kg		100	70 - 130	19	20
Diesel Range Organics (Over C10-C28)	999	1071		mg/Kg		107	70 - 130	9	20

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-45194/3-A

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45194

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-23892-1 MS

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: CS-1

Prep Type: Total/NA

Prep Batch: 45194

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	843.0		mg/Kg		82	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	994.1		mg/Kg		97	70 - 130	
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	110		70 - 130							
o-Terphenyl	115		70 - 130							

Lab Sample ID: 880-23892-1 MSD

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: CS-1

Prep Type: Total/NA

Prep Batch: 45194

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	823.8		mg/Kg		80	70 - 130	2	20	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	968.5		mg/Kg		95	70 - 130	3	20	
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	107		70 - 130									
o-Terphenyl	112		70 - 130									

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44664/1-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<5.00	U	5.00	mg/Kg			01/25/23 12:00	1		

Lab Sample ID: LCS 880-44664/2-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS						%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	250	263.3		mg/Kg		105	90 - 110			

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-44664/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 44719											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	263.6		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 880-23892-8 MS				Client Sample ID: CS-8							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 44719											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	13.6	F1	251	325.9	F1	mg/Kg		125	90 - 110		

Lab Sample ID: 880-23892-8 MSD				Client Sample ID: CS-8							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 44719											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	13.6	F1	251	327.2	F1	mg/Kg		125	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

GC VOA

Prep Batch: 44727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-1	CS-1	Total/NA	Solid	5035	
880-23892-2	CS-2	Total/NA	Solid	5035	
880-23892-3	CS-3	Total/NA	Solid	5035	
880-23892-4	CS-4	Total/NA	Solid	5035	
880-23892-5	CS-5	Total/NA	Solid	5035	
880-23892-6	CS-6	Total/NA	Solid	5035	
880-23892-7	CS-7	Total/NA	Solid	5035	
MB 880-44727/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44727/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44727/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 44733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44733/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-1	CS-1	Total/NA	Solid	8021B	44727
880-23892-2	CS-2	Total/NA	Solid	8021B	44727
880-23892-3	CS-3	Total/NA	Solid	8021B	44727
880-23892-4	CS-4	Total/NA	Solid	8021B	44727
880-23892-5	CS-5	Total/NA	Solid	8021B	44727
880-23892-6	CS-6	Total/NA	Solid	8021B	44727
880-23892-7	CS-7	Total/NA	Solid	8021B	44727
MB 880-44727/5-A	Method Blank	Total/NA	Solid	8021B	44727
LCS 880-44727/1-A	Lab Control Sample	Total/NA	Solid	8021B	44727
LCSD 880-44727/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44727

Prep Batch: 44825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-8	CS-8	Total/NA	Solid	5035	
880-23892-9	CS-9	Total/NA	Solid	5035	
880-23892-10	CS-10	Total/NA	Solid	5035	
MB 880-44825/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44825/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44825/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 44892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-1	CS-1	Total/NA	Solid	Total BTEX	
880-23892-2	CS-2	Total/NA	Solid	Total BTEX	
880-23892-3	CS-3	Total/NA	Solid	Total BTEX	
880-23892-4	CS-4	Total/NA	Solid	Total BTEX	
880-23892-5	CS-5	Total/NA	Solid	Total BTEX	
880-23892-6	CS-6	Total/NA	Solid	Total BTEX	
880-23892-7	CS-7	Total/NA	Solid	Total BTEX	
880-23892-8	CS-8	Total/NA	Solid	Total BTEX	
880-23892-9	CS-9	Total/NA	Solid	Total BTEX	
880-23892-10	CS-10	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 44898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-8	CS-8	Total/NA	Solid	8021B	44825
880-23892-9	CS-9	Total/NA	Solid	8021B	44825
880-23892-10	CS-10	Total/NA	Solid	8021B	44825
MB 880-44733/5-A	Method Blank	Total/NA	Solid	8021B	44733
MB 880-44825/5-A	Method Blank	Total/NA	Solid	8021B	44825
LCS 880-44825/1-A	Lab Control Sample	Total/NA	Solid	8021B	44825
LCSD 880-44825/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44825

GC Semi VOA

Analysis Batch: 45170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-1	CS-1	Total/NA	Solid	8015B NM	45194
880-23892-2	CS-2	Total/NA	Solid	8015B NM	45194
880-23892-3	CS-3	Total/NA	Solid	8015B NM	45194
880-23892-4	CS-4	Total/NA	Solid	8015B NM	45194
880-23892-5	CS-5	Total/NA	Solid	8015B NM	45194
880-23892-6	CS-6	Total/NA	Solid	8015B NM	45194
880-23892-7	CS-7	Total/NA	Solid	8015B NM	45194
880-23892-8	CS-8	Total/NA	Solid	8015B NM	45194
880-23892-9	CS-9	Total/NA	Solid	8015B NM	45194
880-23892-10	CS-10	Total/NA	Solid	8015B NM	45194
MB 880-45194/1-A	Method Blank	Total/NA	Solid	8015B NM	45194
LCS 880-45194/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45194
LCSD 880-45194/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45194
880-23892-1 MS	CS-1	Total/NA	Solid	8015B NM	45194
880-23892-1 MSD	CS-1	Total/NA	Solid	8015B NM	45194

Prep Batch: 45194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-1	CS-1	Total/NA	Solid	8015NM Prep	
880-23892-2	CS-2	Total/NA	Solid	8015NM Prep	
880-23892-3	CS-3	Total/NA	Solid	8015NM Prep	
880-23892-4	CS-4	Total/NA	Solid	8015NM Prep	
880-23892-5	CS-5	Total/NA	Solid	8015NM Prep	
880-23892-6	CS-6	Total/NA	Solid	8015NM Prep	
880-23892-7	CS-7	Total/NA	Solid	8015NM Prep	
880-23892-8	CS-8	Total/NA	Solid	8015NM Prep	
880-23892-9	CS-9	Total/NA	Solid	8015NM Prep	
880-23892-10	CS-10	Total/NA	Solid	8015NM Prep	
MB 880-45194/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45194/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45194/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23892-1 MS	CS-1	Total/NA	Solid	8015NM Prep	
880-23892-1 MSD	CS-1	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-1	CS-1	Total/NA	Solid	8015 NM	
880-23892-2	CS-2	Total/NA	Solid	8015 NM	
880-23892-3	CS-3	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

GC Semi VOA (Continued)

Analysis Batch: 45251 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-4	CS-4	Total/NA	Solid	8015 NM	
880-23892-5	CS-5	Total/NA	Solid	8015 NM	
880-23892-6	CS-6	Total/NA	Solid	8015 NM	
880-23892-7	CS-7	Total/NA	Solid	8015 NM	
880-23892-8	CS-8	Total/NA	Solid	8015 NM	
880-23892-9	CS-9	Total/NA	Solid	8015 NM	
880-23892-10	CS-10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-1	CS-1	Soluble	Solid	DI Leach	
880-23892-2	CS-2	Soluble	Solid	DI Leach	
880-23892-3	CS-3	Soluble	Solid	DI Leach	
880-23892-4	CS-4	Soluble	Solid	DI Leach	
880-23892-5	CS-5	Soluble	Solid	DI Leach	
880-23892-6	CS-6	Soluble	Solid	DI Leach	
880-23892-7	CS-7	Soluble	Solid	DI Leach	
880-23892-8	CS-8	Soluble	Solid	DI Leach	
880-23892-9	CS-9	Soluble	Solid	DI Leach	
880-23892-10	CS-10	Soluble	Solid	DI Leach	
MB 880-44664/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-23892-8 MS	CS-8	Soluble	Solid	DI Leach	
880-23892-8 MSD	CS-8	Soluble	Solid	DI Leach	

Analysis Batch: 44719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23892-1	CS-1	Soluble	Solid	300.0	44664
880-23892-2	CS-2	Soluble	Solid	300.0	44664
880-23892-3	CS-3	Soluble	Solid	300.0	44664
880-23892-4	CS-4	Soluble	Solid	300.0	44664
880-23892-5	CS-5	Soluble	Solid	300.0	44664
880-23892-6	CS-6	Soluble	Solid	300.0	44664
880-23892-7	CS-7	Soluble	Solid	300.0	44664
880-23892-8	CS-8	Soluble	Solid	300.0	44664
880-23892-9	CS-9	Soluble	Solid	300.0	44664
880-23892-10	CS-10	Soluble	Solid	300.0	44664
MB 880-44664/1-A	Method Blank	Soluble	Solid	300.0	44664
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	300.0	44664
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44664
880-23892-8 MS	CS-8	Soluble	Solid	300.0	44664
880-23892-8 MSD	CS-8	Soluble	Solid	300.0	44664

Eurofins Midland

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-1

Lab Sample ID: 880-23892-1

Date Collected: 01/18/23 09:30

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44727	MNR	EET MID	01/25/23 13:19
Total/NA	Analysis	8021B		1	44779	MNR	EET MID	01/26/23 19:59
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/27/23 09:44
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/01/23 20:52
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 12:39

Client Sample ID: CS-2

Lab Sample ID: 880-23892-2

Date Collected: 01/18/23 09:32

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44727	MNR	EET MID	01/25/23 13:19
Total/NA	Analysis	8021B		1	44779	MNR	EET MID	01/26/23 20:19
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/27/23 09:44
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/01/23 21:57
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 12:44

Client Sample ID: CS-3

Lab Sample ID: 880-23892-3

Date Collected: 01/18/23 09:35

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44727	MNR	EET MID	01/25/23 13:19
Total/NA	Analysis	8021B		1	44779	MNR	EET MID	01/26/23 20:39
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/27/23 09:44
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/01/23 22:19
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 12:58

Client Sample ID: CS-4

Lab Sample ID: 880-23892-4

Date Collected: 01/18/23 09:37

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44727	MNR	EET MID	01/25/23 13:19
Total/NA	Analysis	8021B		1	44779	MNR	EET MID	01/26/23 21:00
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/27/23 09:44

Eurofins Midland

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-4

Lab Sample ID: 880-23892-4

Date Collected: 01/18/23 09:37

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/01/23 22:40
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 13:03

Client Sample ID: CS-5

Lab Sample ID: 880-23892-5

Date Collected: 01/18/23 09:41

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44727	MNR	EET MID	01/25/23 13:19
Total/NA	Analysis	8021B		1	44779	MNR	EET MID	01/26/23 21:20
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/27/23 09:44
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/01/23 23:03
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 13:08

Client Sample ID: CS-6

Lab Sample ID: 880-23892-6

Date Collected: 01/18/23 09:44

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44727	MNR	EET MID	01/25/23 13:19
Total/NA	Analysis	8021B		1	44779	MNR	EET MID	01/26/23 21:41
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/27/23 09:44
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/01/23 23:25
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 13:13

Client Sample ID: CS-7

Lab Sample ID: 880-23892-7

Date Collected: 01/18/23 09:48

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44727	MNR	EET MID	01/25/23 13:19
Total/NA	Analysis	8021B		1	44779	MNR	EET MID	01/26/23 22:01
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/27/23 09:44
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/01/23 23:47

Eurofins Midland

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

Client Sample ID: CS-7

Lab Sample ID: 880-23892-7

Date Collected: 01/18/23 09:48

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 13:18

Client Sample ID: CS-8

Lab Sample ID: 880-23892-8

Date Collected: 01/18/23 09:52

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44825	MNR	EET MID	01/26/23 13:15
Total/NA	Analysis	8021B		1	44898	MNR	EET MID	01/28/23 14:52
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/30/23 10:47
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/02/23 00:09
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 13:22

Client Sample ID: CS-9

Lab Sample ID: 880-23892-9

Date Collected: 01/18/23 09:55

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44825	MNR	EET MID	01/26/23 13:15
Total/NA	Analysis	8021B		1	44898	MNR	EET MID	01/28/23 15:13
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/30/23 10:47
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/02/23 00:31
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 13:37

Client Sample ID: CS-10

Lab Sample ID: 880-23892-10

Date Collected: 01/18/23 09:59

Matrix: Solid

Date Received: 01/19/23 08:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44825	MNR	EET MID	01/26/23 13:15
Total/NA	Analysis	8021B		1	44898	MNR	EET MID	01/28/23 15:34
Total/NA	Analysis	Total BTEX		1	44892	AJ	EET MID	01/30/23 10:47
Total/NA	Analysis	8015 NM		1	45251	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/02/23 00:52
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 13:42

Eurofins Midland

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
SDG: Lea County, NM

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
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	T104704400-22-25	06-30-23

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

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

- 1
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- 13
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Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23892-1
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	EPA	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

EPA = US Environmental Protection Agency

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: 880-23892-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-23892-1	CS-1	Solid	01/18/23 09:30	01/19/23 08:15
880-23892-2	CS-2	Solid	01/18/23 09:32	01/19/23 08:15
880-23892-3	CS-3	Solid	01/18/23 09:35	01/19/23 08:15
880-23892-4	CS-4	Solid	01/18/23 09:37	01/19/23 08:15
880-23892-5	CS-5	Solid	01/18/23 09:41	01/19/23 08:15
880-23892-6	CS-6	Solid	01/18/23 09:44	01/19/23 08:15
880-23892-7	CS-7	Solid	01/18/23 09:48	01/19/23 08:15
880-23892-8	CS-8	Solid	01/18/23 09:52	01/19/23 08:15
880-23892-9	CS-9	Solid	01/18/23 09:55	01/19/23 08:15
880-23892-10	CS-10	Solid	01/18/23 09:59	01/19/23 08:15



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: 23892

www.xenco.com

Page 5 of 6

Project Manager:	<u>Josh Adams</u>	Bill to (if different):	
Company Name:	<u>Ensolyn, LLC</u>	Company Name:	
Address:	<u>601 N Maricopa St Suite 400</u>	Address:	
City, State ZIP:	<u>Midland, TX 79701</u>	City, State ZIP:	
Phone:	<u>303-517-8437</u>	Email:	

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:	<u>Learnex 018</u>	Turn Around	☒ Routine ☐ Rush	Pres. Code		ANALYSIS REQUEST																Preservative Codes				
Project Number:	<u>03D2057048</u>					NFE 11/18/23																None NO DI Water: H ₂ O				
Project Location:	<u>Lea County, NM</u>	Due Date:																				Cool Cool MeOH Me				
Sampler's Name:	<u>Samantha Mackenzie</u>	TAT starts the day received by the lab, if received by 4:30pm																				HCL. HC HNO ₃ HN				
PO #	<u>03D2057048</u>																					H ₂ SO ₄ H ₂ NaOH Na				
																						H ₃ PO ₄ HP				
SAMPLE RECEIPT		Temp Blank:	Yes (No)	Wet Ice:	Yes (No)	Thermometer ID:				NaHSO ₄ NABIS				Na ₂ S ₂ O ₃ NaSO ₃				Zn Acetate+NaOH Zn				NaOH+Ascorbic Acid SAPC				
Samples Received Intact:	Yes No ☒	Correction Factor:		Temperature Reading:		Corrected Temperature:																				
Cooler Custody Seals:	Yes No ☒																									
Sample Custody Seals:	Yes No ☒																									
Total Containers:																										
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth Feet	Grab/Comp	# of Cont	TPH	BTEX	Chlorides																	Sample Comments
CS-1	S	11/18/23	0930	1	C	1	X	X	X																	
CS-2	S	11/18/23	0932	1	C	1	X	X	X																	
CS-3	S	11/18/23	0935	1	C	1	X	X	X																	
CS-4	S	11/18/23	0937	1	C	1	X	X	X																	
CS-5	S	11/18/23	0941	1	C	1	X	X	X																	
CS-6	S	11/18/23	0944	1	C	1	X	X	X																	
CS-7	S	11/18/23	0948	1	C	1	X	X	X																	
CS-8	S	11/18/23	0952	1	C	1	X	X	X																	
CS-9	S	11/18/23	0955	1	C	1	X	X	X																	
CS-10	S	11/18/23	0959	1	C	1	X	X	X																	

Total 200.7/6010	200.8/6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn
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 Ti U	Hg 1631/2451/7470/7471

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 <u>[Signature]</u>	<u>[Signature]</u>	11/19/23 8:15	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23892-1
SDG Number: Lea County, NM

Login Number: 23892

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

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	



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 2/3/2023 11:14:21 AM

JOB DESCRIPTION

Leamex 018

SDG NUMBER Lea County,NM

JOB NUMBER

880-23893-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

Eurofins Midland**Job Notes**

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

Authorization

Generated
2/3/2023 11:14:21 AM

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: 880-23893-1
SDG: Lea County,NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
SDG: Lea County,NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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: 880-23893-1
SDG: Lea County,NM

Job ID: 880-23893-1

Laboratory: Eurofins Midland

Narrative

**Job Narrative
880-23893-1**

Receipt

The sample was received on 1/19/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

Receipt Exceptions

The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-45145 and analytical batch 880-45222 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28).

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 880-44664 and analytical batch 880-44719 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: 880-23893-1
SDG: Lea County,NM

Client Sample ID: CS-11

Lab Sample ID: 880-23893-1

Date Collected: 01/18/23 10:03

Matrix: Solid

Date Received: 01/19/23 08:15

Sample Depth: 1'

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		01/25/23 13:19	01/26/23 14:04	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 14:04	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 14:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/23 13:19	01/26/23 14:04	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/23 13:19	01/26/23 14:04	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/23 13:19	01/26/23 14:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	01/25/23 13:19	01/26/23 14:04	1
1,4-Difluorobenzene (Surr)	113		70 - 130	01/25/23 13:19	01/26/23 14:04	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			01/26/23 16:28	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			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		01/31/23 14:03	02/02/23 20:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		01/31/23 14:03	02/02/23 20:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/31/23 14:03	02/02/23 20:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	01/31/23 14:03	02/02/23 20:03	1
o-Terphenyl	78		70 - 130	01/31/23 14:03	02/02/23 20:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.41		5.04	mg/Kg			01/25/23 13:56	1

Eurofins Midland

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
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)
880-23893-1	CS-11	101	113
880-23893-1 MS	CS-11	99	106
880-23893-1 MSD	CS-11	98	112
LCS 880-44727/1-A	Lab Control Sample	98	111
LCSD 880-44727/2-A	Lab Control Sample Dup	96	111
MB 880-44727/5-A	Method Blank	100	108
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23893-1	CS-11	79	78
LCS 880-45145/2-A	Lab Control Sample	80	75
LCSD 880-45145/3-A	Lab Control Sample Dup	92	91
MB 880-45145/1-A	Method Blank	87	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
SDG: Lea County,NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44727/5-A

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44727

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/23 13:19	01/26/23 13:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/25/23 13:19	01/26/23 13:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	01/25/23 13:19	01/26/23 13:35	1
1,4-Difluorobenzene (Surr)	108		70 - 130	01/25/23 13:19	01/26/23 13:35	1

Lab Sample ID: LCS 880-44727/1-A

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 44727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09183		mg/Kg		92	70 - 130
Toluene	0.100	0.08980		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08904		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1851		mg/Kg		93	70 - 130
o-Xylene	0.100	0.08836		mg/Kg		88	70 - 130

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

Lab Sample ID: LCSD 880-44727/2-A

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 44727

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09866		mg/Kg		99	70 - 130	7	35
Toluene	0.100	0.09468		mg/Kg		95	70 - 130	5	35
Ethylbenzene	0.100	0.09336		mg/Kg		93	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1911		mg/Kg		96	70 - 130	3	35
o-Xylene	0.100	0.09112		mg/Kg		91	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 880-23893-1 MS

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: CS-11

Prep Type: Total/NA

Prep Batch: 44727

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.08423		mg/Kg		84	70 - 130
Toluene	<0.00199	U	0.0998	0.08447		mg/Kg		85	70 - 130

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
SDG: Lea County,NM

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

Lab Sample ID: 880-23893-1 MS

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: CS-11

Prep Type: Total/NA

Prep Batch: 44727

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.08047		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1655		mg/Kg		83	70 - 130
o-Xylene	<0.00199	U	0.0998	0.07947		mg/Kg		79	70 - 130
Surrogate	MS %Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene (Surr)	99		70 - 130						
1,4-Difluorobenzene (Surr)	106		70 - 130						

Lab Sample ID: 880-23893-1 MSD

Matrix: Solid

Analysis Batch: 44779

Client Sample ID: CS-11

Prep Type: Total/NA

Prep Batch: 44727

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09175		mg/Kg		92	70 - 130	9	35
Toluene	<0.00199	U	0.100	0.08563		mg/Kg		85	70 - 130	1	35
Ethylbenzene	<0.00199	U	0.100	0.07921		mg/Kg		79	70 - 130	2	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1617		mg/Kg		81	70 - 130	2	35
o-Xylene	<0.00199	U	0.100	0.07790		mg/Kg		77	70 - 130	2	35
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	98		70 - 130								
1,4-Difluorobenzene (Surr)	112		70 - 130								

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

Lab Sample ID: MB 880-45145/1-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45145

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/31/23 14:03	02/02/23 09:48	1
Surrogate	MB %Recovery	MB Qualifier	MB Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			01/31/23 14:03	02/02/23 09:48	1
o-Terphenyl	91		70 - 130			01/31/23 14:03	02/02/23 09:48	1

Lab Sample ID: LCS 880-45145/2-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	716.6		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	999	910.1		mg/Kg		91	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
SDG: Lea County,NM

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

Lab Sample ID: LCS 880-45145/2-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45145

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	75		70 - 130

Lab Sample ID: LCSD 880-45145/3-A

Matrix: Solid

Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45145

	Spike	LCSD	LCSD					%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
Gasoline Range Organics (GRO)-C6-C10	999	1055	*1	mg/Kg		106	70 - 130	38	20		
Diesel Range Organics (Over C10-C28)	999	1157	*1	mg/Kg		116	70 - 130	24	20		

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	91		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44664/1-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<5.00	U	5.00	mg/Kg			01/25/23 12:00	1		

Lab Sample ID: LCS 880-44664/2-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS				%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	263.3		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-44664/3-A

Matrix: Solid

Analysis Batch: 44719

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	263.6		mg/Kg		105	90 - 110	0	20	

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
SDG: Lea County,NM

GC VOA

Prep Batch: 44727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23893-1	CS-11	Total/NA	Solid	5035	
MB 880-44727/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44727/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44727/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-23893-1 MS	CS-11	Total/NA	Solid	5035	
880-23893-1 MSD	CS-11	Total/NA	Solid	5035	

Analysis Batch: 44779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23893-1	CS-11	Total/NA	Solid	8021B	44727
MB 880-44727/5-A	Method Blank	Total/NA	Solid	8021B	44727
LCS 880-44727/1-A	Lab Control Sample	Total/NA	Solid	8021B	44727
LCSD 880-44727/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44727
880-23893-1 MS	CS-11	Total/NA	Solid	8021B	44727
880-23893-1 MSD	CS-11	Total/NA	Solid	8021B	44727

Analysis Batch: 44860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23893-1	CS-11	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23893-1	CS-11	Total/NA	Solid	8015NM Prep	
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23893-1	CS-11	Total/NA	Solid	8015B NM	45145
MB 880-45145/1-A	Method Blank	Total/NA	Solid	8015B NM	45145
LCS 880-45145/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45145
LCSD 880-45145/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45145

Analysis Batch: 45390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23893-1	CS-11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23893-1	CS-11	Soluble	Solid	DI Leach	
MB 880-44664/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 44719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23893-1	CS-11	Soluble	Solid	300.0	44664

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QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
SDG: Lea County,NM

HPLC/IC (Continued)

Analysis Batch: 44719 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44664/1-A	Method Blank	Soluble	Solid	300.0	44664
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	300.0	44664
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44664

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- 14

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
SDG: Lea County,NM

Client Sample ID: CS-11
Date Collected: 01/18/23 10:03
Date Received: 01/19/23 08:15

Lab Sample ID: 880-23893-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44727	MNR	EET MID	01/25/23 13:19
Total/NA	Analysis	8021B		1	44779	MNR	EET MID	01/26/23 14:04
Total/NA	Analysis	Total BTEX		1	44860	SM	EET MID	01/26/23 16:28
Total/NA	Analysis	8015 NM		1	45390	AJ	EET MID	02/03/23 11:49
Total/NA	Prep	8015NM Prep			45145	DM	EET MID	01/31/23 14:03
Total/NA	Analysis	8015B NM		1	45222	AJ	EET MID	02/02/23 20:03
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 13:56

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: 880-23893-1
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	T104704400-22-25	06-30-23

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

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

- 1
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Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23893-1
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	EPA	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

EPA = US Environmental Protection Agency

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: 880-23893-1
SDG: Lea County,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-23893-1	CS-11	Solid	01/18/23 10:03	01/19/23 08:15	1'

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Environment Testing

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:

23892

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Page 6 of 6

Project Manager	Josh Adams		Bill to: (if different)	
Company Name	Ensolium, LLC		Company Name	
Address	601 N Marisfeld St Suite 400		Address	
City, State ZIP	Midland, Tx, 79701		City, State ZIP	
Phone	303-517-8437	Email		

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: _____		

[illegible]

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	1631/2451/7470/7471							

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				11/19/23 8:15	2				
3					4				
5					6				

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23893-1

SDG Number: Lea County,NM

Login Number: 23893

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

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	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Josh Adams
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 2/2/2023 1:14:40 PM

JOB DESCRIPTION

Leamex 018
SDG NUMBER Lea County, NM

JOB NUMBER

880-23894-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

Eurofins Midland**Job Notes**

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

Authorization

Generated
2/2/2023 1:14:40 PM

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: 880-23894-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

1

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13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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
SQL	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: 880-23894-1
SDG: Lea County, NM

Job ID: 880-23894-1

Laboratory: Eurofins Midland

Narrative

**Job Narrative
880-23894-1**

Receipt

The sample was received on 1/19/2023 8:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

Receipt Exceptions

The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

GC VOA

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44664 and analytical batch 880-44719 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: 880-23894-1
SDG: Lea County, NM

Client Sample ID: SS01

Lab Sample ID: 880-23894-1

Date Collected: 01/18/23 12:30

Matrix: Solid

Date Received: 01/19/23 08:15

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 12:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 12:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 12:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/19/23 16:20	01/24/23 12:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 12:14	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/19/23 16:20	01/24/23 12:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	160	S1+	70 - 130	01/19/23 16:20	01/24/23 12:14	1
1,4-Difluorobenzene (Surr)	78		70 - 130	01/19/23 16:20	01/24/23 12:14	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			01/24/23 13:50	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			02/02/23 12:15	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		02/01/23 11:51	02/02/23 01:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/02/23 01:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/02/23 01:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	02/01/23 11:51	02/02/23 01:36	1
o-Terphenyl	89		70 - 130	02/01/23 11:51	02/02/23 01:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.5		4.98	mg/Kg			01/25/23 14:01	1

Eurofins Midland

Surrogate Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
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)
880-23894-1	SS01	160 S1+	78
LCS 880-44389/1-A	Lab Control Sample	141 S1+	92
LCSD 880-44389/2-A	Lab Control Sample Dup	131 S1+	91
MB 880-44389/5-A	Method Blank	98	75
MB 880-44394/5-A	Method Blank	93	82
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23894-1	SS01	81	89
LCS 880-45194/2-A	Lab Control Sample	77	80
LCSD 880-45194/3-A	Lab Control Sample Dup	84	88
MB 880-45194/1-A	Method Blank	107	121
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44389/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44389

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:20	01/24/23 01:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/19/23 16:20	01/24/23 01:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	01/19/23 16:20	01/24/23 01:56	1
1,4-Difluorobenzene (Surr)	75		70 - 130	01/19/23 16:20	01/24/23 01:56	1

Lab Sample ID: LCS 880-44389/1-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 44389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1154		mg/Kg		115	70 - 130
Toluene	0.100	0.08920		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.07834		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1634		mg/Kg		82	70 - 130
o-Xylene	0.100	0.08474		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-44389/2-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 44389

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1216		mg/Kg		122	70 - 130	5	35
Toluene	0.100	0.1022		mg/Kg		102	70 - 130	14	35
Ethylbenzene	0.100	0.09859		mg/Kg		99	70 - 130	23	35
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130	26	35
o-Xylene	0.100	0.1073		mg/Kg		107	70 - 130	23	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: MB 880-44394/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44394

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-44394/5-A

Matrix: Solid

Analysis Batch: 44514

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 44394

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/19/23 16:42	01/23/23 12:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/19/23 16:42	01/23/23 12:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	01/19/23 16:42	01/23/23 12:08	1
1,4-Difluorobenzene (Surr)	82		70 - 130	01/19/23 16:42	01/23/23 12:08	1

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

Lab Sample ID: MB 880-45194/1-A

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45194

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 19:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 19:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 11:51	02/01/23 19:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	02/01/23 11:51	02/01/23 19:48	1
o-Terphenyl	121		70 - 130	02/01/23 11:51	02/01/23 19:48	1

Lab Sample ID: LCS 880-45194/2-A

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	999	819.9		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	999	979.6		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: LCSD 880-45194/3-A

Matrix: Solid

Analysis Batch: 45170

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45194

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	999	994.2		mg/Kg		100	70 - 130	19	20
Diesel Range Organics (Over C10-C28)	999	1071		mg/Kg		107	70 - 130	9	20

Eurofins Midland

QC Sample Results

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-45194/3-A
Matrix: Solid
Analysis Batch: 45170

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45194

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	88		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44664/1-A
Matrix: Solid
Analysis Batch: 44719

Client Sample ID: Method Blank
Prep Type: Soluble

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<5.00	U	5.00	mg/Kg			01/25/23 12:00		1

Lab Sample ID: LCS 880-44664/2-A
Matrix: Solid
Analysis Batch: 44719

Client Sample ID: Lab Control Sample
Prep Type: Soluble

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	263.3		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-44664/3-A
Matrix: Solid
Analysis Batch: 44719

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

	Spike	LCSD	LCSD					%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
Chloride	250	263.6		mg/Kg		105	90 - 110	0	20		

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
SDG: Lea County, NM

GC VOA

Prep Batch: 44389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23894-1	SS01	Total/NA	Solid	5035	
MB 880-44389/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44389/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44389/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 44394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-44394/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23894-1	SS01	Total/NA	Solid	8021B	44389
MB 880-44389/5-A	Method Blank	Total/NA	Solid	8021B	44389
MB 880-44394/5-A	Method Blank	Total/NA	Solid	8021B	44394
LCS 880-44389/1-A	Lab Control Sample	Total/NA	Solid	8021B	44389
LCSD 880-44389/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44389

Analysis Batch: 44646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23894-1	SS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 45170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23894-1	SS01	Total/NA	Solid	8015B NM	45194
MB 880-45194/1-A	Method Blank	Total/NA	Solid	8015B NM	45194
LCS 880-45194/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45194
LCSD 880-45194/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45194

Prep Batch: 45194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23894-1	SS01	Total/NA	Solid	8015NM Prep	
MB 880-45194/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45194/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45194/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23894-1	SS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23894-1	SS01	Soluble	Solid	DI Leach	
MB 880-44664/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Midland

QC Association Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 44719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-23894-1	SS01	Soluble	Solid	300.0	44664
MB 880-44664/1-A	Method Blank	Soluble	Solid	300.0	44664
LCS 880-44664/2-A	Lab Control Sample	Soluble	Solid	300.0	44664
LCSD 880-44664/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44664

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
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- 10
- 11
- 12
- 13
- 14

Lab Chronicle

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
SDG: Lea County, NM

Client Sample ID: SS01
Date Collected: 01/18/23 12:30
Date Received: 01/19/23 08:15

Lab Sample ID: 880-23894-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			44389	MNR	EET MID	01/19/23 16:20
Total/NA	Analysis	8021B		1	44514	MNR	EET MID	01/24/23 12:14
Total/NA	Analysis	Total BTEX		1	44646	AJ	EET MID	01/24/23 13:50
Total/NA	Analysis	8015 NM		1	45252	AJ	EET MID	02/02/23 12:15
Total/NA	Prep	8015NM Prep			45194	DM	EET MID	02/01/23 11:51
Total/NA	Analysis	8015B NM		1	45170	AJ	EET MID	02/02/23 01:36
Soluble	Leach	DI Leach			44664	KS	EET MID	01/24/23 15:24
Soluble	Analysis	300.0		1	44719	CH	EET MID	01/25/23 14:01

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: 880-23894-1
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	T104704400-22-25	06-30-23

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

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Leamex 018

Job ID: 880-23894-1
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	EPA	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

EPA = US Environmental Protection Agency

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: 880-23894-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-23894-1	SS01	Solid	01/18/23 12:30	01/19/23 08:15	0.25'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing

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:

2389L

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Page 1 of 1

Project Manager:	Josh Adams	Bill to: (if different)	
Company Name:	Enselum, LLC	Company Name:	
Address:	601 N. Morienfeld St Suite 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone	303 517 8437	Email	Kjerming@enselum.com Jadamse@enselum.com

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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 ☐

[illegible]

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 		1/19/23 8:15	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-23894-1
SDG Number: Lea County, NM

Login Number: 23894

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Midland

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	



APPENDIX E

NMOCD Notifications

From: [Harimon, Jocelyn, EMNRD](#)
To: [Kalei Jennings](#)
Subject: FW: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 4/10/2023)
Date: Monday, April 10, 2023 11:03:23 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

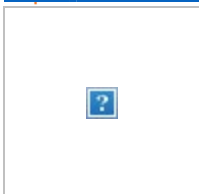
[**EXTERNAL EMAIL **]

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.

JH

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](http://www.emnrd.nm.gov)



From: Enviro, OCD, EMNRD
Sent: Monday, April 10, 2023 10:02 AM
To: Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 4/10/2023)

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](http://www.emnrd.nm.gov)



From: Kalei Jennings <kjennings@ensolum.com>

Sent: Friday, April 7, 2023 1:13 PM

To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

Subject: [EXTERNAL] Maverick Permian - Sampling Notification (Week of 4/10/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Permian, LLC (Maverick) plans to complete sampling activities at the following site the week of April 10, 2023.

- Grayburg Eumont Straw Battery/ NAPP2302036818
 - Sampling Date: 4/12/2023 & 4/13/2023
- MCA 254/ NAPP2302035947
 - Sampling Date: 4/12/2023 – 4/14/2023
- EVGSAU 2418-001 / NAPP2231954757
 - Sampling Date: 4/13/2023
- EVGSAU 2963-001/ NAPP2235371799
 - Sampling Date: 4/14/2023
- MCA 151 / NAPP2235377174
 - Sampling Date: 4/14/2023
- Leamex 018/ NAPP2234158858
 - Sampling Date: 4/13/2023 & 4/14/2023

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Bratcher, Michael, EMNRD](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/16/2023)
Date: Thursday, January 12, 2023 9:33:41 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

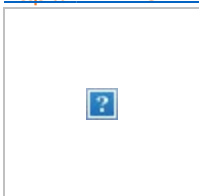
[**EXTERNAL EMAIL**]

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.

JH

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](http://www.emnrd.nm.gov)



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, January 11, 2023 5:25 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 01/16/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Natural Resources (Maverick) plans to complete final sampling activities at the following sites the week of January 16, 2023.

- Oxy State F-1 / NAPP2235375291
- Jalmat 188 / NAPP2235373931
- Jalmat 170 / NAPP2233946698
- MCA 151 / NAPP2235377174

- EVGSAU 2418-001 / NAPP2231954757
- Buckeye 43-01 / NAPP2230752440
- Leamex 018 / NAPP2234158858
-

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Nobui, Jennifer, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/30/2023)
Date: Monday, January 30, 2023 11:18:04 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

[**EXTERNAL EMAIL**]

Kalei,

Please be aware that notification requirements are **two business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to insure inclusion in the project file.

JH

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](http://www.emnrd.nm.gov)



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Saturday, January 28, 2023 7:49 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 01/30/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Natural Resources (Maverick) plans to complete final sampling activities at the following sites the week of January 30, 2023.

- Oxy State F-1 / NAPP2235375291
- MCA Battery #4 / NAPP2235376218
- Cone Jalmat South Satellite Header / NAPP2301881992

- Buckeye 43-01 / NAPP2230752440
- Leamex 018 / NAPP2234158858
-

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#); [Enviro, OCD, EMNRD](#)
Cc: [Josh Adams](#); [Hadlie Green](#); [Bratcher, Michael, EMNRD](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 02/06/2023)
Date: Thursday, February 2, 2023 9:54:04 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

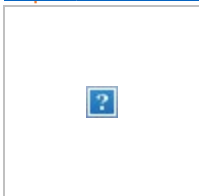
[**EXTERNAL EMAIL**]

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.

JH

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](http://www.emnrd.nm.gov)



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, February 1, 2023 8:14 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Josh Adams <jadams@ensolum.com>; Hadlie Green <hgreen@ensolum.com>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 02/06/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Natural Resources, LLC (Maverick) plans to complete final sampling activities at the following sites the week of February 6, 2023.

- Buckey 43-01/ NAPP2230752440
- Leamex 018/ NAPP2234158858
- SC Federal Battery/ NAPP2303272686

- Baish B Battery/ NAPP2235372941
- Oxy State F-1 / NAPP2235375291

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Nobui, Jennifer, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 02/13/2023)
Date: Wednesday, February 8, 2023 4:28:59 PM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

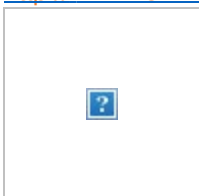
[**EXTERNAL EMAIL**]

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.

JH

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](http://www.emnrd.nm.gov)



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, February 8, 2023 2:53 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Josh Adams <jadams@ensolum.com>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 02/13/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Natural Resources, LLC (Maverick) plans to complete final sampling activities at the following sites the week of February 13, 2023.

- EVGSAU 2801/ NAPP2221675703
- Leamex 018/ NAPP2234158858
- MCA 4/ NAPP2235376218

- Baish B Battery/ NAPP2235372941
- Oxy State F-1 / NAPP2235375291

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC



From: [Enviro, OCD, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Nobui, Jennifer, EMNRD](#); [Bratcher, Michael, EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 02/20/2023)
Date: Friday, February 17, 2023 9:23:46 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

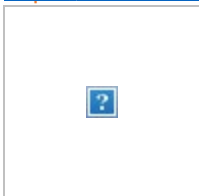
[**EXTERNAL EMAIL**]

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.

JH

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](http://www.emnrd.nm.gov)



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Thursday, February 16, 2023 11:28 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Bryce Wagoner <Bryce.Wagoner@mavresources.com>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 02/20/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Permian, LLC (Maverick) plans to complete final sampling activities at the following sites the week of February 20, 2023.

- Cone Jalmat South Satellite Header / NAPP2301881992
- Leamex 018/ NAPP2234158858
- MCA 351/ NAPP2302035947

- Jalmat 188 / NAPP2235373931
- Baish B Battery/ NAPP2235372941

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC





APPENDIX F

Final C-141

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	NAPP2234158858
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) NAPP2234158858
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.830488 Longitude -103.663141
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Leamex 018 Flowline	Site Type
Date Release Discovered November 30, 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) 3.16 bbls	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 17.7 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

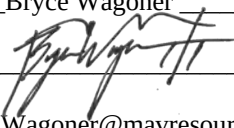
The release was caused by a flowline failure off-pad. The source of the release has been stopped and the impacted area secured. Initial response and removal of saturated soil from the release area has been completed.

Incident ID	NAPP2234158858
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 <u>not</u> 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: <u>Bryce Wagoner</u>	Title: <u>Permian HSE Specialist II</u>
Signature: 	Date: <u>12/06/2022</u>
email: <u>Bryce.Wagoner@mavresources.com</u>	Telephone: <u>928-241-1862</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

NAPP2234158858

Pooled Fluids on the Surface										
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries <i>*edges of pool where depth is 0 . don't count shared boundaries</i>	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	150.0	50.0	0.2	4.0	0.20	7500.0	0.0	5.6	1.11	4.45
Rectangle B	75.0	30.0	0.2	4.0	0.01	2250.0	0.0	1.7	0.02	1.65
Rectangle C	100.0	40.0	0.20	4.00	0.01	4000.000	0.004	2.967	0.01	2.94
Rectangle D	40.0	20.0	0.20	4.00	0.01	800.000	0.004	0.593	0.00	0.59
Rectangle E						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Volume (bbls):								10.79	1.14	9.63

Subsurface Fluids										
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) <i>*10% in consolidated sediments after rain to 50% in sand with no precipitation</i>	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	100.0	65.0	1.0	0.1	0.20	6500.0	96.4	7.7	1.54	6.2
Rectangle B	100.0	20.0	1.0	0.1	0.20	2000.0	29.7	2.4	0.47	1.9
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):								10.09	2.02	8.07

TOTAL RELEASE VOLUME (bbls):	20.9

Incident ID	NAPP2234158858
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?	<u>>100</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☒ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☒ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

State of New Mexico
Oil Conservation Division

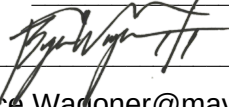
Page 4

Incident ID	NAPP2234158858
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: 07/13/2023

email: Bryce.Wagoner@mavresources.com

Telephone: 928-241-1862

OCD Only

Received by: Shelly Wells

Date: 7/14/2023

Incident ID	NAPP2234158858
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.

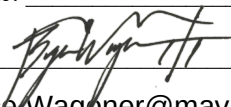
Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ 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: 07/13/2023

email: Bryce.Wagoner@mavresources.com

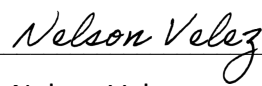
Telephone: 928-241-1862

OCD Only

Received by: Shelly Wells

Date: 7/14/2023

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

Closure Approved by: 

Date: 10/04/2023

Printed Name: Nelson Velez

Title: Environmental Specialist – Adv



APPENDIX G

NMSLO Reclamation Plan

Reclamation Plan

The release occurred in a pasture area and as such, reclamation requirements set forth in 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation were applied.

The following Reclamation Plan addresses reclamation of the off-pad excavation area and has been developed through review and application of the *Revegetation Guidelines Handbook for Southeastern New Mexico* – Version 1-1, authored by NMSLO and dated 2018, and 19.2.100.67 NMAC – *Surface Reclamation on State Oil and Gas Leases*:

- The excavation will be backfilled with locally sourced caliche and topsoil to match surrounding grade. A minimum of 1-foot of topsoil will be placed on top of the caliche to support vegetative growth within the disturbed area;
- Soil in the vicinity of the release in the pasture will be assessed for the proper application of *Table 3 - Revegetation Plans, Codes, and Soil Types for Southeastern New Mexico*;
- The backfilled areas will be seeded utilizing a weed-free seed mix designed listed in the table below;

Common Name and Preferred Variety	Scientific Name	PLS Per Acre
Annual Quick-cover Grass		
Oats	<i>Avena sativa</i>	1.00
Cool Season Grass		
Western Wheatgrass	<i>Agropyron smithii</i>	2.50
Warm-Season Grass		
Black or Blue Grama	<i>Boutela gracilis</i> var. <i>Alma</i>	1.50
Little Bluestem	<i>Schizachyrium scoparium</i>	0.50
Sand Dropseed	<i>Sporobolus cryptandrus</i>	0.50
Sand Bluestem	<i>Andropogon hallii</i>	1.00
Indiangrass	<i>Sorghastrum nutans</i>	0.50
Sideoats Grama	<i>Bouteloua curtipendula</i> var. <i>Vaughn</i>	2.00
Wildflowers/ Forbs		
White prairie clover	<i>Dalea candida</i>	0.10
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	0.10
Chia Sage	<i>Salvia columbariae</i>	0.10
Annual sunflower	<i>Helianthus annuus</i>	0.10
Annual buckwheat	<i>Eriogonum annuum</i>	0.10

- The seed mixture will be distributed with one or more of the following methods: push broadcaster seed spreader, tractor operated broadcast seed spreader, and/or drill seeding based on Site conditions and contractor availability;
- Application of the seed mixture will be at a coverage of 10 pounds of seeds per acre of reclaimed pasture with distribution by a drilling method or 20 pounds of seeds per acre of reclaimed pasture with distribution by a broadcast method;

- Erosion control management is not anticipated since the proposed excavation area is relatively flat; however, in the event erosion control management is necessary to support vegetation growth and minimize erosion until the root structures take hold, the application of the following best management practices (BMPs) could potentially include:
 - Prompt revegetation with mulching and contouring the ground surface to limit surface water flow;
 - The placement of wattles in areas with a propensity for high run off rates;
 - Straw cover if high winds are anticipated to support moisture retention and limit wind from blowing seeds away before they have had time to germinate; and/or
 - Other erosional control best management practices (BMP) as necessary to support timely and healthy regrowth of vegetation in disturbed areas;
- Backfilling of the excavation will be scheduled and communicated with NMSLO prior to initiation;
- Seeding is anticipated to be completed in the Fall when temperatures and precipitation are most conducive for vegetation growth. In general, seeding should occur approximately one month after the last frost in the Spring up until approximately one month prior to the first fall frost. NMSLO has recognized the optimal time to seed is between July and early September, which will be the preferred timeframe for this Site;
- If seeding occurs outside of the 180 days approved in the current fully executed ROE Permit, a new ROE Permit will be executed prior to entering the pasture for reclamation activities;
- Annual inspections (at a minimum) will take place on the location until revegetation is consistent with local natural vegetation density. The Site will be inspected the following Fall to assess the success of regrowth. If necessary, an additional application of the NMSLO-approved pure live seed mixture will be applied as well as any needed BMPs will be installed to support growth and limit erosion; and
- Upon completion of revegetation, a copy of the C-103 submitted to NMOCD will also be submitted to NMSLO for final inspection and release.

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 240132

CONDITIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 240132
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	10/4/2023