



March 3, 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
OXY State F-1
Incident Number NAPP2235375291
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, delineation and soil sampling activities performed at the OXY State F-1 (Site). The purpose of the Site activities was to address impacts to soil resulting from a release of produced water and crude oil at the Site. Based on excavation activities, delineation activities and laboratory analytical results from the soil sampling events, Maverick is submitting this *Closure Request*, which summarizes completed remedial actions and requesting closure for Incident Number NAPP2235375291.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit U, Section 1, Township 21 South, Range 36 East, in Lea County, New Mexico (32.50113°, -103.22639°) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On December 3, 2022, a tank overflowed, resulting in the release of approximately 236 barrels (bbls) of produced water and 118 bbls of crude oil onto the pad and adjacent pasture, paralleling the northeast pad access road. Vacuum trucks were immediately dispatched and approximately 90 bbls of produced water and 110 bbls of crude oil 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 19, 2022, and subsequently assigned Incident Number NAPP2235375291.

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, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest available groundwater well data. The closest permitted groundwater well with depth to groundwater data is the United States Geological Survey (USGS) well 323000103142301, located approximately 0.8 miles west of the Site. The groundwater well has a reported depth to groundwater of 129.4 feet bgs from February 2001. The second closest permitted groundwater well with depth to groundwater data is the New Mexico Office of the State Engineer (NMOSE) well CP-00690, located 1.1 miles west of the Site. NMOSE well CP-00690 was a dry boring advanced to 340 feet bgs.

Regional depth to groundwater at the Site is more conservatively estimated to be between 51 feet and 100 feet bgs, based on USGS 322946103122901 well located approximately 1.1 miles east of the Site and NMOSE well CP-00877 located approximately 1.5 miles northeast of the Site. USGS well 322946103122901 has a reported depth to groundwater at 81.27 feet bgs. The NMOSE groundwater well CP-00877 has a reported depth to groundwater of 73 feet bgs. Based on regional depth to water, USGS well 322946103122901 and NMOSE well CP-00877 were utilized for depth to groundwater determination at the Site, as they categorize the Site under the more conservative standard. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 9,257 feet north of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet from 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)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

INITIAL SITE ASSESSMENT

On December 12, 2022, Ensolum personnel visited the Site to evaluate the release area based on information provided on the Form C-141 and observed surface soil staining. The observed soil stained footprint, defined as the release extent, was confirmed to affect both the pad and adjacent northeast pasture measuring approximately 9,223 square feet in areal extent. The release extent was mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.



EXCAVATION SOIL SAMPLING ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between December 20, 2022, and January 6, 2023, Ensolum personnel oversaw the excavation of impacted soil performed via mechanical equipment. Impacted soil was excavated from the release area as indicated by visible staining and field screening activities. Soil was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Photographic documentation of excavation activities is included as a photographic log in Appendix B.

Following removal of impacted soil, 5-point composite excavation confirmation 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 FS01 through FS46 were collected from the floor of the excavation at depths ranging from 1-foot to 3 feet bgs. Composite soil samples SW01 through SW03 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 3 feet bgs. For areas of the excavation where the excavation depth did not exceed 2 feet bgs, sidewall soil was incorporated into the floor samples respectively. The excavation extent and excavation soil sample locations are presented on Figure 2A and Figure 2B.

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

Laboratory analytical results for all excavation confirmation soil samples indicated COC concentrations were compliant with the applicable Closure Criteria, except for soil samples FS14, FS22 and FS28. Additional soil was removed from the respective areas and subsequent 5-point composite excavation confirmation samples were collected from new excavation floors; laboratory analytical results for the excavation soil samples indicated COC concentrations were compliant with the applicable Closure Criteria. For those areas where the release traveled along the lease road and spilled into the pasture, confirmation samples were compliant with the reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

The excavation measured approximately 9,200 square feet in areal extent. A total of approximately 496 cubic yards of impacted soil was excavated, transported, and properly disposed at R360 Environmental Solutions in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

DELINEATION SOIL SAMPLING ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On February 6 and 7, 2023, Ensolum personnel were onsite to conduct delineation activities to assess the release area unable to be excavated due to the presence of active above ground production equipment. Delineation activities were performed via mechanical equipment. Pothole PH01 was advanced within the release extent in a chosen location where the structural integrity of production equipment would not be jeopardized. Potholes PH02 through PH05 were advanced around the release extent to assess lateral migration of impacts. Additionally, soil samples SS01



through SS04 were collected just below ground surface in areas surrounding the release to further assist with horizontal delineation. Delineation soil sampling was driven by field screening soil for VOCs and chloride as previously described. Photographic documentation is included in Appendix B. Field screening results and observations for the delineation potholes were logged on lithologic soil sampling logs, which are included in Appendix D.

A minimum of two soil samples were collected from each pothole location for laboratory analyses. The soil samples were handled and analyzed following the same procedures as described above. The delineation soil sample locations are presented on Figure 3.

Laboratory analytical results for delineation soil samples collected outside of the release extent (SS01 through SS04; PH02 through PH05) indicated all COC concentrations were compliant with the applicable Site Closure Criteria. Laboratory analytical results for delineation soil samples collected within the release extent (PH01) also indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

CLOSURE REQUEST

Excavation and delineation activities were conducted at the Site to address the release of produced water and crude oil associated with Incident Number NAPP2235375291. Maverick believes the data described above meets the delineation requirements set forth in 19.15.29.11 NMAC, thus adequately defining lateral and horizontal impacts according to the applicable Site Closure Criteria. Laboratory analytical results for pothole PH01, advanced within the release extent adjacent to the point of release, indicated all COC concentrations were below the Site Closure Criteria. Due to the proximity to the release source, pothole PH01 was expected to have the highest COC concentrations, thus considered to be representative of the entire bermed containment area. Laboratory analytical results for the final excavation confirmation soil samples indicated all COC concentrations were compliant with the applicable Site Closure Criteria. Based on the analytical results for excavation confirmation soil samples and delineation soil samples, no further remediation was required.

Initial spill response efforts and excavation of impacted soil mitigated impacts at the Site following the December 2022 release. Depth to groundwater has been conservatively estimated to be between 51 feet and 100 feet bgs and no sensitive receptors were identified near the release extent. Maverick believes these remedial actions are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAPP2235375291. Maverick will backfill the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture. Sampling notifications sent to NMOCD are included in Appendix E. The Final C-141 is included in Appendix F.

If you have any questions or comments, please contact Mr. Josh Adams at (303) 517-8437 or jadams@ensolum.com.

Sincerely,
Ensolum, LLC



Maverick Permian, LLC
Closure Request
OXY State F-1

March 3, 2023

Page 5



Anna Byers
Project Geologist



Daniel R. Moir, PG
Senior Managing Geologist

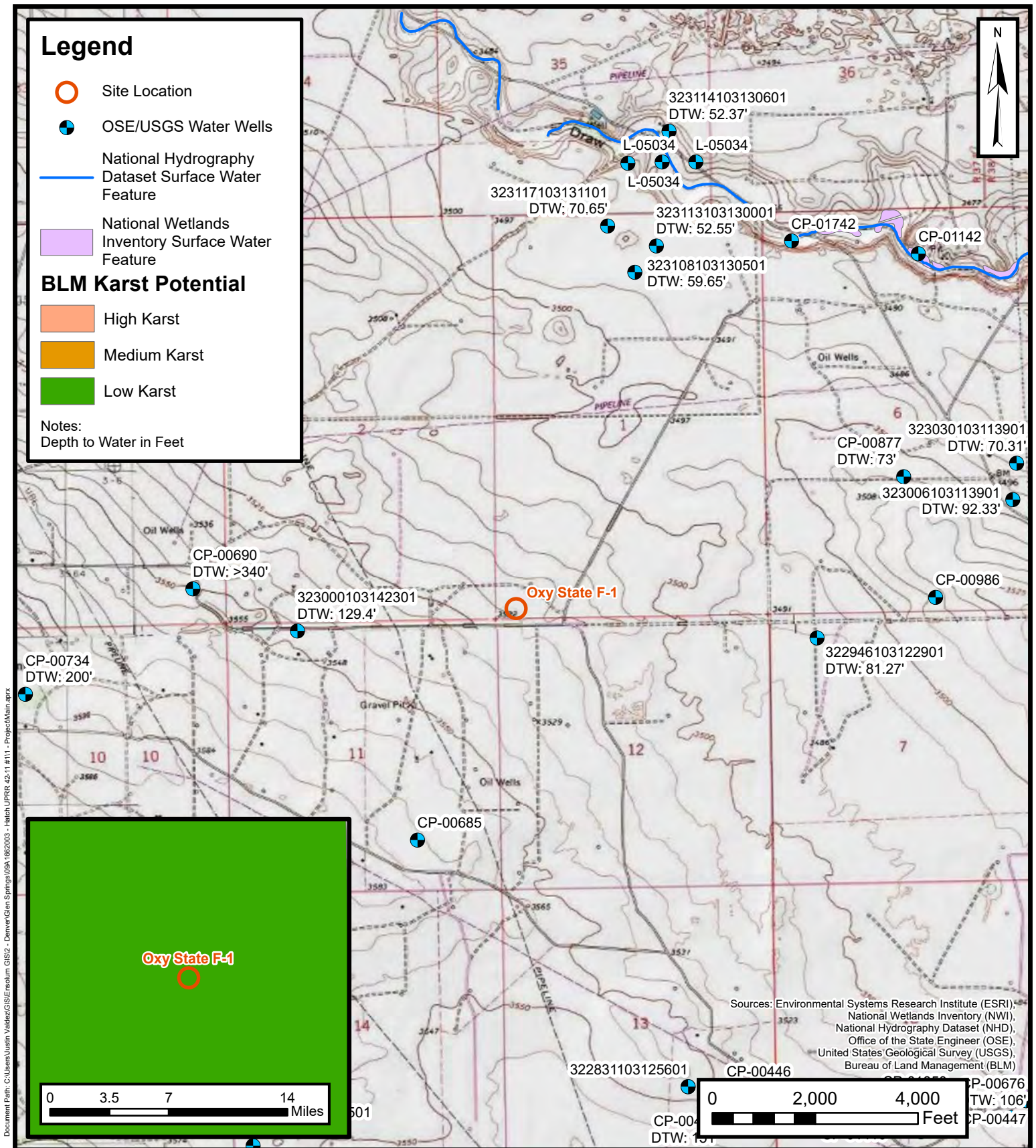
cc: Bryce Wagoner, Maverick Permian, LLC
New Mexico State Land Office

Appendices:

Figure 1	Site Receptor Map
Figure 2A	Excavation Soil Sample Locations
Figure 2B	Excavation Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Figure 4	Deferral Area
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	Lithologic Soil Sampling Logs
Appendix E	NMOCD Notifications
Appendix F	Final C-141



FIGURES



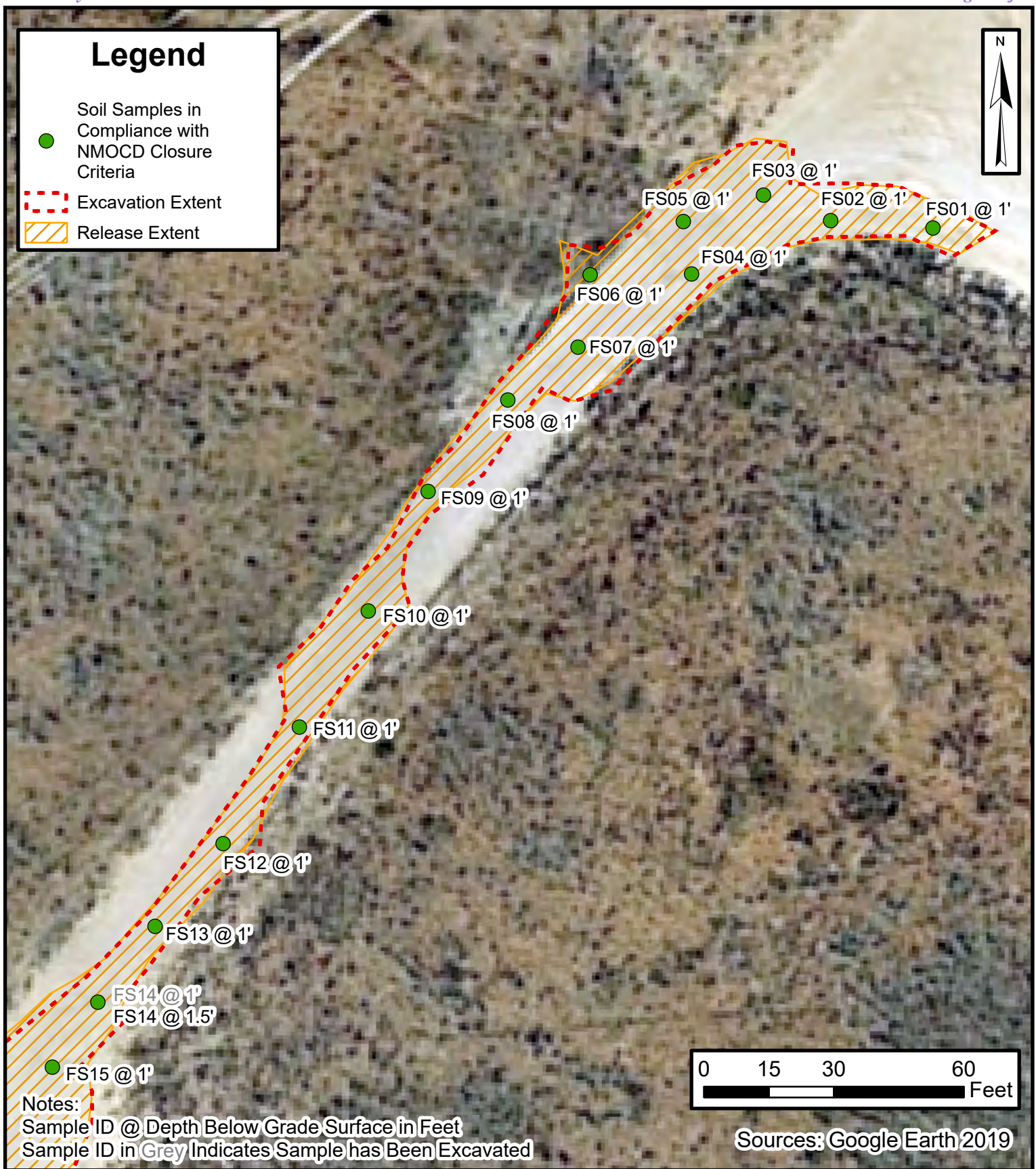
Site Location Map

OXY State F-1
Maverick Permian, LLC
Incident Number: NAPP2235375291
Unit U, Sec 01, T21S, R36E
Lea County, New Mexico

FIGURE

1

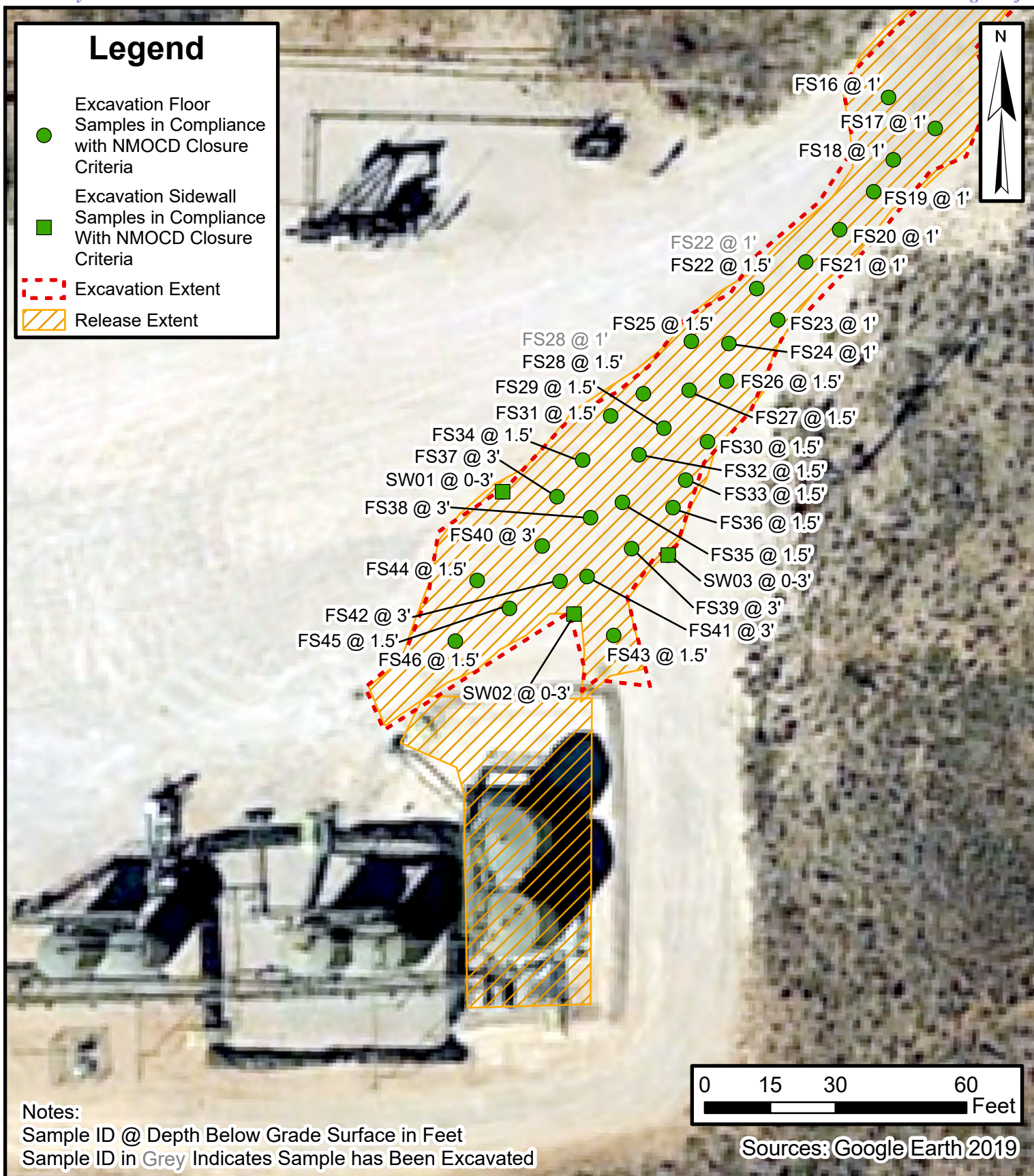
ENSOLUM
Environmental, Engineering and
Hydrogeologic Consultants



Excavation Soil Sample Locations

OXY State F-1
 Maverick Permian, LLC
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 Unit U, Sec 01, T21S, R36E
 Lea County, New Mexico

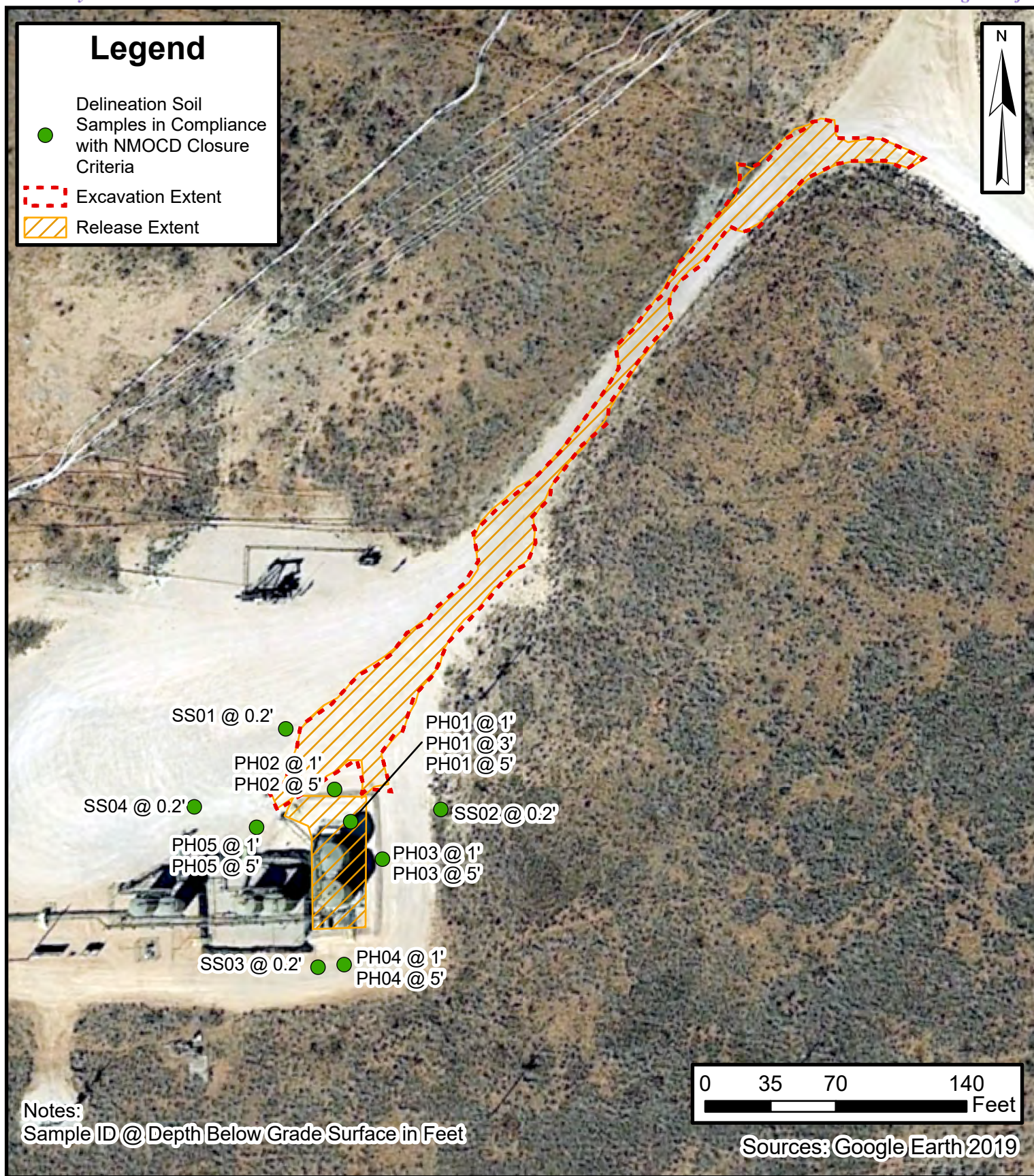
FIGURE
2A



Excavation Soil Sample Locations

OXY State F-1
 Maverick Permian, LLC
 Incident Number: NAPP2235375291
 Unit U, Sec 01, T21S, R36E
 Lea County, New Mexico

FIGURE
2B



Delineation Soil Sample Locations

OXY State F-1
Maverick Permian, LLC
Incident Number: NAPP2235375291
Unit U, Sec 01, T21S, R36E
Lea County, New Mexico

FIGURE
3



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 OXY State F-1
 Maverick Natural Resources, 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)
NMOCDC Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Excavation Confirmation Soil Samples										
FS01*	12/20/2022	1	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	150
FS02*	12/20/2022	1	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	44.1
FS03*	12/20/2022	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	50.4
FS04*	12/20/2022	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	5.73
FS05*	12/20/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	79.6
FS06*	12/20/2022	1	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	<5.03
FS07*	12/20/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	21.1
FS08*	12/20/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	70.1
FS09*	12/20/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	81.6
FS10*	12/20/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	156
FS11*	12/20/2022	1	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	170
FS12*	12/20/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	129
FS13*	01/06/2023	1	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	265
FS14*	12/20/2022	1	<0.00199	<0.00398	<49.8	243	<49.8	243	243	133
FS14*	01/06/2023	1.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	278
FS15*	12/20/2022	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	55.2
FS16*	01/06/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	285
FS17*	01/06/2023	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	149
FS18*	01/06/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	363

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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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
FS19*	01/06/2023	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	178
FS20*	12/20/2022	1	<0.00199	<0.00398	<49.8	52.3	<49.8	52.3	52.3	390
FS21*	01/06/2023	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	400
FS22*	12/21/2022	1	<0.00201	<0.00402	<50.0	122	<50.0	122	122	333
FS22*	01/05/2023	1.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	264
FS23*	12/21/2022	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	421
FS24*	01/05/2023	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	264
FS25*	01/06/2023	1.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	169
FS26*	01/06/2023	1.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	205
FS27	01/05/2023	1.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	323
FS28	12/21/2022	1	<0.00199	<0.00398	<50.0	499	93.3	499	592	421
FS28	01/06/2023	1.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	119
FS29	01/05/2023	1.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	147
FS30	01/05/2023	1.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	225
FS31	01/05/2023	1.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	553
FS32	01/06/2023	1.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	152
FS33	01/05/2023	1.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	370
FS34	01/05/2023	1.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	165
FS35	01/06/2023	1.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	103
FS36	01/06/2023	1.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	144
FS37	01/06/2023	3	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	263
FS38	01/05/2023	3	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	121

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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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
FS39	01/05/2023	3	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	517
FS40	01/06/2023	3	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	136
FS41	01/06/2023	3	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	220
FS42	01/06/2023	3	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	179
FS43	01/06/2023	1.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	169
FS44	01/06/2023	1.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	69.5
FS45	01/06/2023	1.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	271
FS46	01/06/2023	1.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	178
SW01	01/06/2023	0 - 3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	217
SW02	01/06/2023	0 - 3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	317
SW03	01/06/2023	0 - 3	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	161
Delineation Soil Samples										
SS01	02/07/2023	0.2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	68.8
SS02*	02/07/2023	0.2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	42.7
SS03	02/07/2023	0.2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	42.8
SS04	02/07/2023	0.2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	28.5
PH01	02/06/2023	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	19.6
PH01	02/06/2023	3	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	866
PH01	02/06/2023	5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	2,810
PH02	02/06/2023	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	16.3
PH02	02/06/2023	5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	47.9
PH03	02/07/2023	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	41.9

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 Maverick Natural Resources, LLC
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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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
PH03	02/07/2023	5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	174
PH04	02/07/2023	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	25.5
PH04	02/07/2023	5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	354
PH05	02/07/2023	1	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	15.6
PH05	02/07/2023	5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	24.9

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

Grey text represents samples that have been excavated

* Indicates soil samples applicable to reclamation standard



APPENDIX A

Referenced Well Records



[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

USGS Water Resources

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

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Groundwater levels for the Nation

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Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 323000103142301

Minimum number of levels = 1

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USGS 323000103142301 21S.36E.02.341331

Lea County, New Mexico

Latitude 32°30'00", Longitude 103°14'23" NAD27

Land-surface elevation 3,547 feet above NAVD88

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

[Table of data](#)

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[Reselect period](#)

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1961-03-08			D62610		3414.96	NGVD29	1	Z			A
1961-03-08			D62611		3416.19	NAVD88	1	Z			A
1961-03-08			D72019	130.81			1	Z			A
1966-03-04			D62610		3407.65	NGVD29	P	Z			A
1966-03-04			D62611		3408.88	NAVD88	P	Z			A
1966-03-04			D72019	138.12			P	Z			A
1968-03-18			D62610		3411.46	NGVD29	1	Z			A
1968-03-18			D62611		3412.69	NAVD88	1	Z			A
1968-03-18			D72019	134.31			1	Z			A
1970-09-02			D62610		3414.93	NGVD29	P	Z			A
1970-09-02			D62611		3416.16	NAVD88	P	Z			A
1970-09-02			D72019	130.84			P	Z			A
1981-03-05			D62610		3415.45	NGVD29	1	Z			A
1981-03-05			D62611		3416.68	NAVD88	1	Z			A
1981-03-05			D72019	130.32			1	Z			A
1986-03-06			D62610		3415.73	NGVD29	1	Z			A
1986-03-06			D62611		3416.96	NAVD88	1	Z			A
1986-03-06			D72019	130.04			1	Z			A
1991-04-17			D62610		3415.88	NGVD29	1	Z			A
1991-04-17			D62611		3417.11	NAVD88	1	Z			A
1991-04-17			D72019	129.89			1	Z			A
1996-02-09			D62610		3415.97	NGVD29	1	S			A
1996-02-09			D62611		3417.20	NAVD88	1	S			A
1996-02-09			D72019	129.80			1	S			A
2001-02-08			D62610		3416.37	NGVD29	1	S	USGS	S	A
2001-02-08			D62611		3417.60	NAVD88	1	S	USGS	S	A
2001-02-08			D72019	129.40			1	S	USGS	S	A

Explanation

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

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Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2023-03-01 17:06:02 EST

0.3 0.24 nadww02





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
	CP 00690	4	4	03	21S	36E	664706	3597487*	

x

Driller License: 421 **Driller Company:** GLENN'S WATER WELL SERVICE

Driller Name: GLENN, CLARK A."CORKY" (LD)

Drill Start Date: 11/30/1985 **Drill Finish Date:** 11/30/1985 **Plug Date:**

Log File Date: 12/06/1985 **PCW Rcv Date:** **Source:**

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

Casing Size: **Depth Well:** 340 feet **Depth Water:**

x

*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.

1/17/23 1:26 PM

POINT OF DIVERSION SUMMARY

**STATE ENGINEER OFFICE
WELL RECORD**

Section 1. GENERAL INFORMATION

(A) Owner of well Sun Explor. & Prod. 06 JAN 13 1985
 Street or Post Office Address c/o Glenn's Water Well Service, Inc.
 City and State Box 692 Tatum, N.M. 88267

Well was drilled under Permit No. Cp-690 and is located in the STATE ENGINEER OFFICE
SANTA FE NEW MEXICO

a. $\frac{1}{4}$ E $\frac{1}{2}$ $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 3 Township 21 Range 36 N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
 Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in
 the _____ Grant.

(B) Drilling Contractor Glenn's Water Well Service, Inc. License No. WD 421

Address Box 692 Tatum, N.M. 88267

Drilling Began Nov. 30, 1985 Completed Nov. 30, 1985 type tools rotary Size of hole 9 7/8 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 4 340 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well _____ ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
			Dry hole	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____
 Address _____
 Plugging Method _____
 Date Well Plugged _____
 Plugging approved by: _____

State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received December 6, 1985

Quad _____ FWL _____ FSL _____

File No. CP-690 Use OWD Location No. 21.36.3.44412

[illegible]

DEC 6 8 22 AM '85

STATE ENGINEER
ROSSELL, NM

Corky Hume
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.



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USGS Water Resources

Data Category:

Groundwater

▼

Geographic Area:

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Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 322946103122901

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 322946103122901 21S.37E.07.112434

Lea County, New Mexico
Latitude 32°29'57", Longitude 103°12'25" NAD27
Land-surface elevation 3,492.10 feet above NGVD29
The depth of the well is 91 feet below land surface.
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

[Table of data](#)

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Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1967-10-11			D	62610	3410.48	NGVD29	1	Z			A

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1967-10-11			D	62611	3411.63	NAVD88	1	Z			A
1967-10-11			D	72019	81.62		1	Z			A
1968-03-13			D	62610	3410.52	NGVD29	1	Z			A
1968-03-13			D	62611	3411.67	NAVD88	1	Z			A
1968-03-13			D	72019	81.58		1	Z			A
1970-12-16			D	62610	3410.25	NGVD29	1	Z			A
1970-12-16			D	62611	3411.40	NAVD88	1	Z			A
1970-12-16			D	72019	81.85		1	Z			A
1976-01-22			D	62610	3410.80	NGVD29	1	Z			A
1976-01-22			D	62611	3411.95	NAVD88	1	Z			A
1976-01-22			D	72019	81.30		1	Z			A
1981-02-26			D	62610	3410.80	NGVD29	1	Z			A
1981-02-26			D	62611	3411.95	NAVD88	1	Z			A
1981-02-26			D	72019	81.30		1	Z			A
1986-03-06			D	62610	3410.92	NGVD29	1	Z			A
1986-03-06			D	62611	3412.07	NAVD88	1	Z			A
1986-03-06			D	72019	81.18		1	Z			A
1991-04-17			D	62610	3410.89	NGVD29	1	Z			A
1991-04-17			D	62611	3412.04	NAVD88	1	Z			A
1991-04-17			D	72019	81.21		1	Z			A
1996-03-13			D	62610	3410.83	NGVD29	1	S			A
1996-03-13			D	62611	3411.98	NAVD88	1	S			A
1996-03-13			D	72019	81.27		1	S			A

Explanation

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

Section	Code	Description
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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0.29 0.25 nadww02





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		
	CP 00877				06	21S	37E	668920	3598153*		
Driller License:		1044		Driller Company:			EADES WELL DRILLING & PUMP SERVICE				
Driller Name:		EADES, ALAN									
Drill Start Date:		02/26/1998		Drill Finish Date:			02/26/1998		Plug Date:		
Log File Date:		03/06/1998		PCW Rev Date:			Source:			Shallow	
Pump Type:		Pipe Discharge Size:			Estimated Yield:			35 GPM			
Casing Size:		5.75		Depth Well:			150 feet		Depth Water:		73 feet
Water Bearing Stratifications:				Top	Bottom	Description					
				73	148	Sandstone/Gravel/Conglomerate					
Casing Perforations:				Top	Bottom						
				130	150						

*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.

3/1/23 2:35 PM

POINT OF DIVERSION SUMMARY

STATE ENGINEER OFFICE
WELL RECORDRevised
June 1972

Section 1. GENERAL INFORMATION

(A) Owner of well Dallas McCasland Owner's Well No. _____Street or Post Office Address P.O. Box 206City and State Funice, NM 88231Well was drilled under Permit No. CP-00877 and is located in the :a. Lot 16 1/4 _____ 1/4 _____ 1/4 _____ 1/4 of Section 6 Township 21S
Range 37E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of block No. _____ of the _____

Subdivision, recorded in _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____

Zone in the _____ Grant

(B) Drilling Contractor Alan Fades License No. WD-1044Address 1200 E. Bender Blvd., Hobbs NM 88240Drilling Began 2/26/98 Completed 2/26/98 Type Tools Rotary Size of hole 7 7/8 in.Elevation of land surface or _____ at well is _____ ft. Total depth of well 150 ft.Completed well is ☒ shallow ☐ artesian Depth to water upon completion of well 73 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
73	148	75	Water Sand and Small Gravel	35

Section 3. RECORD OF CASING

Diameter (INCHES)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
5 3/4	160PSI				150		130	150

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by: _____

State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

Date Received 03/06/98 FOR USE OF STATE ENGINEER ONLYFile No. CP-00877 Quad _____ FWL _____ FSL _____
Use Stock Location No. 21.37.6.24322

stk

APR 6 98 MAY 11 02

0 MAY 6 98
TULSA

Alfred Eades
Driller
by Kathryn Eades

This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.



APPENDIX B

Photographic Log



Photographic Log

Maverick Permian, LLC

OXY State F-1

Incident Number NAPP2235375291



Photograph 1

Date: 1/6/2023

Description: Excavation activities



Photograph 2

Date: 1/6/2023

Description: Excavation activities



Photograph 3

Date: 2/6/2023

Description: Deferral Area



Photograph 4

Date: 2/6/2023

Description: Delineation activities around Deferral Area



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

- 1
- 2
- 3
- 4
- 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 12/31/2022 10:38:13 AM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER 03D2057051

JOB NUMBER

890-3715-1

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
12/31/2022 10:38:13 AM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-3715-1
SDG: 03D2057051

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: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

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.
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
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: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

Job ID: 890-3715-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-3715-1

Receipt

The sample was received on 12/27/2022 1:34 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 1.2°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: FS23 (890-3715-1).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

1
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14

Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

Client Sample ID: FS23

Lab Sample ID: 890-3715-1

Date Collected: 12/21/22 12:30

Matrix: Solid

Date Received: 12/27/22 13:34

Sample Depth: 12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/27/22 14:52	12/30/22 09:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/27/22 14:52	12/30/22 09:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/27/22 14:52	12/30/22 09:07	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/27/22 14:52	12/30/22 09:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/27/22 14:52	12/30/22 09:07	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/27/22 14:52	12/30/22 09:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	12/27/22 14:52	12/30/22 09:07	1
1,4-Difluorobenzene (Surr)	102		70 - 130	12/27/22 14:52	12/30/22 09:07	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			12/30/22 13:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/31/22 11:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/30/22 08:22	12/30/22 22:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/30/22 08:22	12/30/22 22:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/30/22 08:22	12/30/22 22:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	49	S1-	70 - 130	12/30/22 08:22	12/30/22 22:36	1
o-Terphenyl	36	S1-	70 - 130	12/30/22 08:22	12/30/22 22:36	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	421		5.00	mg/Kg			12/31/22 03:24	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

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)
880-22971-A-1-H MS	Matrix Spike	97	111
880-22971-A-1-I MSD	Matrix Spike Duplicate	107	106
890-3715-1	FS23	106	102
LCS 880-42736/1-A	Lab Control Sample	94	110
LCSD 880-42736/2-A	Lab Control Sample Dup	95	110
MB 880-42727/5-A	Method Blank	93	105
MB 880-42736/5-A	Method Blank	97	106
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)
880-23045-A-1-F MS	Matrix Spike	116	90
880-23045-A-1-G MSD	Matrix Spike Duplicate	111	88
890-3715-1	FS23	49 S1-	36 S1-
LCS 880-42927/2-A	Lab Control Sample	113	123
LCSD 880-42927/3-A	Lab Control Sample Dup	118	132 S1+
MB 880-42927/1-A	Method Blank	125	124
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-42727/5-A

Matrix: Solid

Analysis Batch: 42843

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42727

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/28/22 14:29	12/29/22 13:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/28/22 14:29	12/29/22 13:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/28/22 14:29	12/29/22 13:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/28/22 14:29	12/29/22 13:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/28/22 14:29	12/29/22 13:27	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/28/22 14:29	12/29/22 13:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	12/28/22 14:29	12/29/22 13:27	1
1,4-Difluorobenzene (Surr)	105		70 - 130	12/28/22 14:29	12/29/22 13:27	1

Lab Sample ID: MB 880-42736/5-A

Matrix: Solid

Analysis Batch: 42843

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42736

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/27/22 14:52	12/30/22 01:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/27/22 14:52	12/30/22 01:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/27/22 14:52	12/30/22 01:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/27/22 14:52	12/30/22 01:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/27/22 14:52	12/30/22 01:02	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/27/22 14:52	12/30/22 01:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	12/27/22 14:52	12/30/22 01:02	1
1,4-Difluorobenzene (Surr)	106		70 - 130	12/27/22 14:52	12/30/22 01:02	1

Lab Sample ID: LCS 880-42736/1-A

Matrix: Solid

Analysis Batch: 42843

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1017		mg/Kg		102	70 - 130
Toluene	0.100	0.09127		mg/Kg		91	70 - 130
Ethylbenzene	0.100	0.08777		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1797		mg/Kg		90	70 - 130
o-Xylene	0.100	0.08649		mg/Kg		86	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-42736/2-A

Matrix: Solid

Analysis Batch: 42843

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42736

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09400		mg/Kg		94	70 - 130	8	35

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

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

Lab Sample ID: LCSD 880-42736/2-A

Matrix: Solid

Analysis Batch: 42843

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42736

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08590		mg/Kg		86	70 - 130	6	35
Ethylbenzene	0.100	0.08224		mg/Kg		82	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1701		mg/Kg		85	70 - 130	6	35
o-Xylene	0.100	0.08304		mg/Kg		83	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 880-22971-A-1-H MS

Matrix: Solid

Analysis Batch: 42843

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.0998	0.09104		mg/Kg		91	70 - 130
Toluene	<0.00202	U	0.0998	0.08327		mg/Kg		83	70 - 130
Ethylbenzene	<0.00202	U	0.0998	0.08184		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1697		mg/Kg		84	70 - 130
o-Xylene	<0.00202	U	0.0998	0.08106		mg/Kg		80	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 880-22971-A-1-I MSD

Matrix: Solid

Analysis Batch: 42843

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42736

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.08095		mg/Kg		81	70 - 130	12	35
Toluene	<0.00202	U	0.100	0.08157		mg/Kg		81	70 - 130	2	35
Ethylbenzene	<0.00202	U	0.100	0.08407		mg/Kg		83	70 - 130	3	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1740		mg/Kg		86	70 - 130	2	35
o-Xylene	<0.00202	U	0.100	0.08447		mg/Kg		83	70 - 130	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-42927/1-A

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42927

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/30/22 08:22	12/30/22 13:03	1

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

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

Lab Sample ID: MB 880-42927/1-A

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42927

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		12/30/22 08:22	12/30/22 13:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/30/22 08:22	12/30/22 13:03	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			12/30/22 08:22	12/30/22 13:03	1
o-Terphenyl	124		70 - 130			12/30/22 08:22	12/30/22 13:03	1

Lab Sample ID: LCS 880-42927/2-A

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42927

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	866.9		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1094		mg/Kg		109	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	113		70 - 130				
o-Terphenyl	123		70 - 130				

Lab Sample ID: LCSD 880-42927/3-A

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42927

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	896.1		mg/Kg		90	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1201		mg/Kg		120	70 - 130	9	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	118		70 - 130						
o-Terphenyl	132	S1+	70 - 130						

Lab Sample ID: 880-23045-A-1-F MS

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42927

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 F1	999	1192		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	1339	F1	mg/Kg		132	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	116		70 - 130						
o-Terphenyl	90		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

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

Lab Sample ID: 880-23045-A-1-G MSD

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42927

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 F1	999	1415	F1	mg/Kg		138	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	1291		mg/Kg		128	70 - 130	4	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	88		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-42868/1-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/31/22 02:51	1

Lab Sample ID: LCS 880-42868/2-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	263.9		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-42868/3-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	256.2		mg/Kg		102	90 - 110	3	20

Lab Sample ID: 890-3713-A-1-B MS

Matrix: Solid

Analysis Batch: 42948

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	<5.05	U	253	266.0		mg/Kg		105	90 - 110

Lab Sample ID: 890-3713-A-1-C MSD

Matrix: Solid

Analysis Batch: 42948

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	<5.05	U	253	258.4		mg/Kg		102	90 - 110	3	20

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

GC VOA

Prep Batch: 42727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-42727/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 42736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3715-1	FS23	Total/NA	Solid	5035	
MB 880-42736/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42736/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42736/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-22971-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
880-22971-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 42843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3715-1	FS23	Total/NA	Solid	8021B	42736
MB 880-42727/5-A	Method Blank	Total/NA	Solid	8021B	42727
MB 880-42736/5-A	Method Blank	Total/NA	Solid	8021B	42736
LCS 880-42736/1-A	Lab Control Sample	Total/NA	Solid	8021B	42736
LCSD 880-42736/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42736
880-22971-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	42736
880-22971-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	42736

Analysis Batch: 42983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3715-1	FS23	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 42927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3715-1	FS23	Total/NA	Solid	8015NM Prep	
MB 880-42927/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-42927/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-42927/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23045-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23045-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 42935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3715-1	FS23	Total/NA	Solid	8015B NM	42927
MB 880-42927/1-A	Method Blank	Total/NA	Solid	8015B NM	42927
LCS 880-42927/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	42927
LCSD 880-42927/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	42927
880-23045-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	42927
880-23045-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	42927

Analysis Batch: 43013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3715-1	FS23	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

HPLC/IC

Leach Batch: 42868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3715-1	FS23	Soluble	Solid	DI Leach	
MB 880-42868/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-42868/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-42868/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3713-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3713-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 42948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3715-1	FS23	Soluble	Solid	300.0	42868
MB 880-42868/1-A	Method Blank	Soluble	Solid	300.0	42868
LCS 880-42868/2-A	Lab Control Sample	Soluble	Solid	300.0	42868
LCSD 880-42868/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	42868
890-3713-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	42868
890-3713-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	42868

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

Client Sample ID: FS23
Date Collected: 12/21/22 12:30
Date Received: 12/27/22 13:34

Lab Sample ID: 890-3715-1
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	42736	12/27/22 14:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42843	12/30/22 09:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42983	12/30/22 13:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43013	12/31/22 11:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	42927	12/30/22 08:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42935	12/30/22 22:36	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	42868	12/29/22 10:52	KS	EET MID
Soluble	Analysis	300.0		1			42948	12/31/22 03:24	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: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

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: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3715-1
SDG: 03D2057051

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3715-1	FS23	Solid	12/21/22 12:30	12/27/22 13:34	12

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



Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 505-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No:

Page 1 of 1

Project Manager:	Kalei Jennings	Bill to (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Highway	Address:	3122 Nat'l Parks Highway
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	kjennings@ensolum.com

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

[illegible][illegible]

Circle Method(s) and Metal(s) to be analyzed	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
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 Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xencro 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 Xencro. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xencro, 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	[Signature]	[Signature]	08-27-22 1334			
2						
3						
4						
5						

B-206-2 Date: 08/29/2020 Baw: 7020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3715-1

SDG Number: 03D2057051

Login Number: 3715

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: 890-3715-1

SDG Number: 03D2057051

Login Number: 3715

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 12/29/22 11:42 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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 12/31/2022 9:48:14 AM

JOB DESCRIPTION

Oxy State F-1
SDG NUMBER Lea County, NM

JOB NUMBER

890-3698-1

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
12/31/2022 9:48:14 AM

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

Client: Ensolum
Project/Site: Oxy State F-1

Laboratory Job ID: 890-3698-1
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	18
QC Sample Results	20
QC Association Summary	28
Lab Chronicle	33
Certification Summary	38
Method Summary	39
Sample Summary	40
Chain of Custody	41
Receipt Checklists	43

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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
*-	LCS and/or LCSD is outside acceptance 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: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Job ID: 890-3698-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3698-1****Receipt**

The samples were received on 12/21/2022 9:54 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 0.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-3698-1), FS02 (890-3698-2), FS03 (890-3698-3), FS04 (890-3698-4), FS05 (890-3698-5), FS06 (890-3698-6), FS07 (890-3698-7), FS08 (890-3698-8), FS09 (890-3698-9), FS10 (890-3698-10), FS11 (890-3698-11), FS12 (890-3698-12), FS14 (890-3698-13), FS15 (890-3698-14), FS20 (890-3698-15) and DNU (890-3698-16).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-42759 and analytical batch 880-42922 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.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS01 (890-3698-1), FS02 (890-3698-2), FS03 (890-3698-3), FS04 (890-3698-4), FS05 (890-3698-5), FS06 (890-3698-6), FS07 (890-3698-7), FS08 (890-3698-8), FS09 (890-3698-9), FS10 (890-3698-10), FS11 (890-3698-11), FS12 (890-3698-12), FS14 (890-3698-13), FS15 (890-3698-14) and FS20 (890-3698-15).

Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-42626 and analytical batch 880-42660 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.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS07 (890-3698-7). 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: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS01

Lab Sample ID: 890-3698-1

Date Collected: 12/20/22 10:00

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 12:00	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/27/22 16:57	12/30/22 12:00	1
Ethylbenzene	<0.00202	U **	0.00202	mg/Kg		12/27/22 16:57	12/30/22 12:00	1
m-Xylene & p-Xylene	<0.00403	U **	0.00403	mg/Kg		12/27/22 16:57	12/30/22 12:00	1
o-Xylene	<0.00202	U **	0.00202	mg/Kg		12/27/22 16:57	12/30/22 12:00	1
Xylenes, Total	<0.00403	U **	0.00403	mg/Kg		12/27/22 16:57	12/30/22 12:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	184	S1+	70 - 130	12/27/22 16:57	12/30/22 12:00	1
1,4-Difluorobenzene (Surr)	77		70 - 130	12/27/22 16:57	12/30/22 12:00	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			12/30/22 13:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 15:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 15:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	12/27/22 08:43	12/27/22 15:13	1
o-Terphenyl	114		70 - 130	12/27/22 08:43	12/27/22 15:13	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		5.00	mg/Kg			12/29/22 07:19	1

Client Sample ID: FS02

Lab Sample ID: 890-3698-2

Date Collected: 12/20/22 10:05

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 12:27	1
Toluene	<0.00198	U	0.00198	mg/Kg		12/27/22 16:57	12/30/22 12:27	1
Ethylbenzene	<0.00198	U **	0.00198	mg/Kg		12/27/22 16:57	12/30/22 12:27	1
m-Xylene & p-Xylene	<0.00396	U **	0.00396	mg/Kg		12/27/22 16:57	12/30/22 12:27	1
o-Xylene	<0.00198	U **	0.00198	mg/Kg		12/27/22 16:57	12/30/22 12:27	1
Xylenes, Total	<0.00396	U **	0.00396	mg/Kg		12/27/22 16:57	12/30/22 12:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	213	S1+	70 - 130	12/27/22 16:57	12/30/22 12:27	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS02

Lab Sample ID: 890-3698-2

Date Collected: 12/20/22 10:05

Matrix: Solid

Date Received: 12/21/22 09:54

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	12/27/22 16:57	12/30/22 12:27	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			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 16:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 16:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 16:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			12/27/22 08:43	12/27/22 16:19	1
o-Terphenyl	117		70 - 130			12/27/22 08:43	12/27/22 16:19	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.1		5.04	mg/Kg			12/29/22 07:45	1

Client Sample ID: FS03

Lab Sample ID: 890-3698-3

Date Collected: 12/20/22 10:10

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 12:54	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/27/22 16:57	12/30/22 12:54	1
Ethylbenzene	<0.00201	U **	0.00201	mg/Kg		12/27/22 16:57	12/30/22 12:54	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402	mg/Kg		12/27/22 16:57	12/30/22 12:54	1
o-Xylene	<0.00201	U **	0.00201	mg/Kg		12/27/22 16:57	12/30/22 12:54	1
Xylenes, Total	<0.00402	U **	0.00402	mg/Kg		12/27/22 16:57	12/30/22 12:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	177	S1+	70 - 130	12/27/22 16:57	12/30/22 12:54	1
1,4-Difluorobenzene (Surr)	75		70 - 130	12/27/22 16:57	12/30/22 12:54	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			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/28/22 13:13	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS03

Lab Sample ID: 890-3698-3

Date Collected: 12/20/22 10:10

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 08:43	12/27/22 16:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 16:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 16:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130			12/27/22 08:43	12/27/22 16:41	1
o-Terphenyl	125		70 - 130			12/27/22 08:43	12/27/22 16:41	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.4		5.03	mg/Kg			12/29/22 07:54	1

Client Sample ID: FS04

Lab Sample ID: 890-3698-4

Date Collected: 12/20/22 10:15

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 13:21	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/27/22 16:57	12/30/22 13:21	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 13:21	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 13:21	1
o-Xylene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 13:21	1
Xylenes, Total	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 13:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	175	S1+	70 - 130			12/27/22 16:57	12/30/22 13:21	1
1,4-Difluorobenzene (Surr)	69	S1-	70 - 130			12/27/22 16:57	12/30/22 13:21	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/27/22 08:43	12/27/22 17:04	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		12/27/22 08:43	12/27/22 17:04	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/27/22 08:43	12/27/22 17:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130			12/27/22 08:43	12/27/22 17:04	1
o-Terphenyl	120		70 - 130			12/27/22 08:43	12/27/22 17:04	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS04

Lab Sample ID: 890-3698-4

Date Collected: 12/20/22 10:15

Matrix: Solid

Date Received: 12/21/22 09:54

Sample Depth: 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.73		5.05	mg/Kg			12/29/22 08:03	1

Client Sample ID: FS05

Lab Sample ID: 890-3698-5

Date Collected: 12/20/22 13:00

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 13:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/27/22 16:57	12/30/22 13:49	1
Ethylbenzene	<0.00199	U *	0.00199	mg/Kg		12/27/22 16:57	12/30/22 13:49	1
m-Xylene & p-Xylene	<0.00398	U *	0.00398	mg/Kg		12/27/22 16:57	12/30/22 13:49	1
o-Xylene	<0.00199	U *	0.00199	mg/Kg		12/27/22 16:57	12/30/22 13:49	1
Xylenes, Total	<0.00398	U *	0.00398	mg/Kg		12/27/22 16:57	12/30/22 13:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	209	S1+	70 - 130			12/27/22 16:57	12/30/22 13:49	1
1,4-Difluorobenzene (Surr)	78		70 - 130			12/27/22 16:57	12/30/22 13:49	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			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 17:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 17:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 17:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			12/27/22 08:43	12/27/22 17:26	1
o-Terphenyl	113		70 - 130			12/27/22 08:43	12/27/22 17:26	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.6		4.95	mg/Kg			12/29/22 08:11	1

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Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS06

Lab Sample ID: 890-3698-6

Date Collected: 12/20/22 13:05

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 14:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/27/22 16:57	12/30/22 14:16	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		12/27/22 16:57	12/30/22 14:16	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399	mg/Kg		12/27/22 16:57	12/30/22 14:16	1
o-Xylene	<0.00200	U **	0.00200	mg/Kg		12/27/22 16:57	12/30/22 14:16	1
Xylenes, Total	<0.00399	U **	0.00399	mg/Kg		12/27/22 16:57	12/30/22 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	179	S1+	70 - 130	12/27/22 16:57	12/30/22 14:16	1
1,4-Difluorobenzene (Surr)	70		70 - 130	12/27/22 16:57	12/30/22 14:16	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/27/22 08:43	12/27/22 17:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		12/27/22 08:43	12/27/22 17:48	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/27/22 08:43	12/27/22 17:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	12/27/22 08:43	12/27/22 17:48	1
o-Terphenyl	120		70 - 130	12/27/22 08:43	12/27/22 17:48	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.03	U	5.03	mg/Kg			12/29/22 08:38	1

Client Sample ID: FS07

Lab Sample ID: 890-3698-7

Date Collected: 12/20/22 13:10

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 14:43	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/27/22 16:57	12/30/22 14:43	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 14:43	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 14:43	1
o-Xylene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 14:43	1
Xylenes, Total	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 14:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	161	S1+	70 - 130	12/27/22 16:57	12/30/22 14:43	1

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Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS07

Lab Sample ID: 890-3698-7

Date Collected: 12/20/22 13:10

Matrix: Solid

Date Received: 12/21/22 09:54

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	67	S1-	70 - 130	12/27/22 16:57	12/30/22 14:43	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg	-		12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg	-		12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg	-	12/27/22 08:43	12/27/22 18:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	-	12/27/22 08:43	12/27/22 18:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	-	12/27/22 08:43	12/27/22 18:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			12/27/22 08:43	12/27/22 18:10	1
o-Terphenyl	99		70 - 130			12/27/22 08:43	12/27/22 18:10	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.1		5.01	mg/Kg	-		12/29/22 08:46	1

Client Sample ID: FS08

Lab Sample ID: 890-3698-8

Date Collected: 12/20/22 13:15

Matrix: Solid

Date Received: 12/21/22 09:54

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	-	12/27/22 16:57	12/30/22 15:10	1
Toluene	<0.00199	U	0.00199	mg/Kg	-	12/27/22 16:57	12/30/22 15:10	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg	-	12/27/22 16:57	12/30/22 15:10	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg	-	12/27/22 16:57	12/30/22 15:10	1
o-Xylene	<0.00199	U **	0.00199	mg/Kg	-	12/27/22 16:57	12/30/22 15:10	1
Xylenes, Total	<0.00398	U **	0.00398	mg/Kg	-	12/27/22 16:57	12/30/22 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	178	S1+	70 - 130	12/27/22 16:57	12/30/22 15:10	1
1,4-Difluorobenzene (Surr)	71		70 - 130	12/27/22 16:57	12/30/22 15:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg	-		12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg	-		12/28/22 13:13	1

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Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS08

Lab Sample ID: 890-3698-8

Date Collected: 12/20/22 13:15

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 08:43	12/27/22 18:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 18:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/27/22 08:43	12/27/22 18:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130			12/27/22 08:43	12/27/22 18:32	1
o-Terphenyl	128		70 - 130			12/27/22 08:43	12/27/22 18:32	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.1		5.00	mg/Kg			12/29/22 08:55	1

Client Sample ID: FS09

Lab Sample ID: 890-3698-9

Date Collected: 12/20/22 13:20

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 15:37	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/27/22 16:57	12/30/22 15:37	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 15:37	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 15:37	1
o-Xylene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 15:37	1
Xylenes, Total	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 15:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	220	S1+	70 - 130			12/27/22 16:57	12/30/22 15:37	1
1,4-Difluorobenzene (Surr)	79		70 - 130			12/27/22 16:57	12/30/22 15:37	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 18:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 18:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 18:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			12/27/22 08:43	12/27/22 18:54	1
o-Terphenyl	117		70 - 130			12/27/22 08:43	12/27/22 18:54	1

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Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS09

Lab Sample ID: 890-3698-9

Date Collected: 12/20/22 13:20

Matrix: Solid

Date Received: 12/21/22 09:54

Sample Depth: 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.6		4.96	mg/Kg			12/29/22 09:04	1

Client Sample ID: FS10

Lab Sample ID: 890-3698-10

Date Collected: 12/20/22 13:25

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 16:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/27/22 16:57	12/30/22 16:04	1
Ethylbenzene	<0.00200	U *	0.00200	mg/Kg		12/27/22 16:57	12/30/22 16:04	1
m-Xylene & p-Xylene	<0.00399	U *	0.00399	mg/Kg		12/27/22 16:57	12/30/22 16:04	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		12/27/22 16:57	12/30/22 16:04	1
Xylenes, Total	<0.00399	U *	0.00399	mg/Kg		12/27/22 16:57	12/30/22 16:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	214	S1+	70 - 130			12/27/22 16:57	12/30/22 16:04	1
1,4-Difluorobenzene (Surr)	78		70 - 130			12/27/22 16:57	12/30/22 16:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 19:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 19:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 19:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			12/27/22 08:43	12/27/22 19:16	1
o-Terphenyl	98		70 - 130			12/27/22 08:43	12/27/22 19:16	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	156		4.96	mg/Kg			12/29/22 09:12	1

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Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS11

Lab Sample ID: 890-3698-11

Date Collected: 12/20/22 13:30

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 18:07	1
Toluene	<0.00198	U	0.00198	mg/Kg		12/27/22 16:57	12/30/22 18:07	1
Ethylbenzene	<0.00198	U **	0.00198	mg/Kg		12/27/22 16:57	12/30/22 18:07	1
m-Xylene & p-Xylene	<0.00397	U **	0.00397	mg/Kg		12/27/22 16:57	12/30/22 18:07	1
o-Xylene	<0.00198	U **	0.00198	mg/Kg		12/27/22 16:57	12/30/22 18:07	1
Xylenes, Total	<0.00397	U **	0.00397	mg/Kg		12/27/22 16:57	12/30/22 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	247	S1+	70 - 130	12/27/22 16:57	12/30/22 18:07	1
1,4-Difluorobenzene (Surr)	81		70 - 130	12/27/22 16:57	12/30/22 18:07	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			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/28/22 13:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 20:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 20:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	12/27/22 08:43	12/27/22 20:01	1
o-Terphenyl	99		70 - 130	12/27/22 08:43	12/27/22 20:01	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170		4.95	mg/Kg			12/29/22 09:21	1

Client Sample ID: FS12

Lab Sample ID: 890-3698-12

Date Collected: 12/20/22 13:35

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 18:33	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/27/22 16:57	12/30/22 18:33	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 18:33	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 18:33	1
o-Xylene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 18:33	1
Xylenes, Total	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	210	S1+	70 - 130	12/27/22 16:57	12/30/22 18:33	1

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Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS12

Lab Sample ID: 890-3698-12

Date Collected: 12/20/22 13:35

Matrix: Solid

Date Received: 12/21/22 09:54

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	12/27/22 16:57	12/30/22 18:33	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/28/22 12:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *	49.9	mg/Kg		12/27/22 08:39	12/27/22 22:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/27/22 08:39	12/27/22 22:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/27/22 08:39	12/27/22 22:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			12/27/22 08:39	12/27/22 22:12	1
o-Terphenyl	96		70 - 130			12/27/22 08:39	12/27/22 22:12	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	129		5.05	mg/Kg			12/29/22 09:47	1

Client Sample ID: FS14

Lab Sample ID: 890-3698-13

Date Collected: 12/20/22 14:25

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 19:00	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/27/22 16:57	12/30/22 19:00	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 19:00	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 19:00	1
o-Xylene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 19:00	1
Xylenes, Total	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 19:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	205	S1+	70 - 130	12/27/22 16:57	12/30/22 19:00	1
1,4-Difluorobenzene (Surr)	72		70 - 130	12/27/22 16:57	12/30/22 19:00	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	243		49.8	mg/Kg			12/28/22 13:33	1

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Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS14

Lab Sample ID: 890-3698-13

Date Collected: 12/20/22 14:25

Matrix: Solid

Date Received: 12/21/22 09:54

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	<49.8	U	49.8	mg/Kg		12/27/22 08:34	12/27/22 18:28	1
Diesel Range Organics (Over C10-C28)	243		49.8	mg/Kg		12/27/22 08:34	12/27/22 18:28	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/27/22 08:34	12/27/22 18:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			12/27/22 08:34	12/27/22 18:28	1
o-Terphenyl	89		70 - 130			12/27/22 08:34	12/27/22 18:28	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		5.03	mg/Kg			12/29/22 09:56	1

Client Sample ID: FS15

Lab Sample ID: 890-3698-14

Date Collected: 12/20/22 14:30

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 19:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/27/22 16:57	12/30/22 19:26	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		12/27/22 16:57	12/30/22 19:26	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399	mg/Kg		12/27/22 16:57	12/30/22 19:26	1
o-Xylene	<0.00200	U **	0.00200	mg/Kg		12/27/22 16:57	12/30/22 19:26	1
Xylenes, Total	<0.00399	U **	0.00399	mg/Kg		12/27/22 16:57	12/30/22 19:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	209	S1+	70 - 130			12/27/22 16:57	12/30/22 19:26	1
1,4-Difluorobenzene (Surr)	73		70 - 130			12/27/22 16:57	12/30/22 19:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/28/22 12:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *	49.9	mg/Kg		12/27/22 08:39	12/27/22 22:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/27/22 08:39	12/27/22 22:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/27/22 08:39	12/27/22 22:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			12/27/22 08:39	12/27/22 22:56	1
o-Terphenyl	86		70 - 130			12/27/22 08:39	12/27/22 22:56	1

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Client Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS15

Lab Sample ID: 890-3698-14

Date Collected: 12/20/22 14:30

Matrix: Solid

Date Received: 12/21/22 09:54

Sample Depth: 1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.2		5.01	mg/Kg			12/29/22 10:22	1

Client Sample ID: FS20

Lab Sample ID: 890-3698-15

Date Collected: 12/20/22 15:15

Matrix: Solid

Date Received: 12/21/22 09:54

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		12/27/22 16:57	12/30/22 19:54	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/27/22 16:57	12/30/22 19:54	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 19:54	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 19:54	1
o-Xylene	<0.00199	U **	0.00199	mg/Kg		12/27/22 16:57	12/30/22 19:54	1
Xylenes, Total	<0.00398	U **	0.00398	mg/Kg		12/27/22 16:57	12/30/22 19:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	199	S1+	70 - 130			12/27/22 16:57	12/30/22 19:54	1
1,4-Difluorobenzene (Surr)	48	S1-	70 - 130			12/27/22 16:57	12/30/22 19:54	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	mg/Kg			12/31/22 10:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	52.3		49.8	mg/Kg			12/28/22 13:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/27/22 08:34	12/27/22 19:11	1
Diesel Range Organics (Over C10-C28)	52.3		49.8	mg/Kg		12/27/22 08:34	12/27/22 19:11	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/27/22 08:34	12/27/22 19:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			12/27/22 08:34	12/27/22 19:11	1
o-Terphenyl	97		70 - 130			12/27/22 08:34	12/27/22 19:11	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	390		4.97	mg/Kg			12/28/22 17:53	1

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Surrogate Summary

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3698-1	FS01	184 S1+	77
890-3698-1 MS	FS01	178 S1+	77
890-3698-1 MSD	FS01	191 S1+	86
890-3698-2	FS02	213 S1+	76
890-3698-3	FS03	177 S1+	75
890-3698-4	FS04	175 S1+	69 S1-
890-3698-5	FS05	209 S1+	78
890-3698-6	FS06	179 S1+	70
890-3698-7	FS07	161 S1+	67 S1-
890-3698-8	FS08	178 S1+	71
890-3698-9	FS09	220 S1+	79
890-3698-10	FS10	214 S1+	78
890-3698-11	FS11	247 S1+	81
890-3698-12	FS12	210 S1+	76
890-3698-13	FS14	205 S1+	72
890-3698-14	FS15	209 S1+	73
890-3698-15	FS20	199 S1+	48 S1-
LCS 880-42759/1-A	Lab Control Sample	187 S1+	68 S1-
LCSD 880-42759/2-A	Lab Control Sample Dup	222 S1+	80
MB 880-42759/5-A	Method Blank	133 S1+	68 S1-
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)
880-23040-A-1-E MS	Matrix Spike	111	95
880-23040-A-1-F MSD	Matrix Spike Duplicate	100	88
890-3698-1	FS01	103	114
890-3698-1 MS	FS01	91	82
890-3698-1 MS	FS01	91	88
890-3698-1 MSD	FS01	91	83
890-3698-1 MSD	FS01	89	87
890-3698-2	FS02	114	117
890-3698-3	FS03	118	125
890-3698-4	FS04	116	120
890-3698-5	FS05	105	113
890-3698-6	FS06	118	120
890-3698-7	FS07	97	99
890-3698-8	FS08	123	128
890-3698-9	FS09	114	117
890-3698-10	FS10	95	98
890-3698-11	FS11	96	99
890-3698-12	FS12	103	96
890-3698-13	FS14	90	89

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Surrogate Summary

Client: Ensolum

Job ID: 890-3698-1

Project/Site: Oxy State F-1

SDG: Lea County, NM

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)
890-3698-14	FS15	90	86
890-3698-15	FS20	105	97
LCS 880-42625/2-A	Lab Control Sample	97	103
LCS 880-42626/2-A	Lab Control Sample	100	98
LCS 880-42627/2-A	Lab Control Sample	85	95
LCSD 880-42625/3-A	Lab Control Sample Dup	105	110
LCSD 880-42626/3-A	Lab Control Sample Dup	96	105
LCSD 880-42627/3-A	Lab Control Sample Dup	88	98
MB 880-42625/1-A	Method Blank	102	106
MB 880-42626/1-A	Method Blank	100	102
MB 880-42627/1-A	Method Blank	97	108
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-42759/5-A

Matrix: Solid

Analysis Batch: 42922

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42759

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/27/22 16:57	12/30/22 11:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/27/22 16:57	12/30/22 11:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/27/22 16:57	12/30/22 11:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/27/22 16:57	12/30/22 11:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/27/22 16:57	12/30/22 11:33	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/27/22 16:57	12/30/22 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	12/27/22 16:57	12/30/22 11:33	1
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130	12/27/22 16:57	12/30/22 11:33	1

Lab Sample ID: LCS 880-42759/1-A

Matrix: Solid

Analysis Batch: 42922

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42759

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09355		mg/Kg		94	70 - 130
Toluene	0.100	0.1010		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.1215		mg/Kg		122	70 - 130
m-Xylene & p-Xylene	0.200	0.2454		mg/Kg		123	70 - 130
o-Xylene	0.100	0.1220		mg/Kg		122	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	187	S1+	70 - 130
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130

Lab Sample ID: LCSD 880-42759/2-A

Matrix: Solid

Analysis Batch: 42922

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42759

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1198		mg/Kg		120	70 - 130	25	35
Toluene	0.100	0.1223		mg/Kg		122	70 - 130	19	35
Ethylbenzene	0.100	0.1484	*+	mg/Kg		148	70 - 130	20	35
m-Xylene & p-Xylene	0.200	0.2990	*+	mg/Kg		149	70 - 130	20	35
o-Xylene	0.100	0.1438	*+	mg/Kg		144	70 - 130	16	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	222	S1+	70 - 130
1,4-Difluorobenzene (Surr)	80		70 - 130

Lab Sample ID: 890-3698-1 MS

Matrix: Solid

Analysis Batch: 42922

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 42759

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.0998	0.1112		mg/Kg		111	70 - 130
Toluene	<0.00202	U	0.0998	0.1004		mg/Kg		101	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

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

Lab Sample ID: 890-3698-1 MS

Matrix: Solid

Analysis Batch: 42922

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 42759

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U *	0.0998	0.1151		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	<0.00403	U *	0.200	0.2329		mg/Kg		117	70 - 130
o-Xylene	<0.00202	U *	0.0998	0.1136		mg/Kg		114	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	178	S1+	70 - 130
1,4-Difluorobenzene (Surr)	77		70 - 130

Lab Sample ID: 890-3698-1 MSD

Matrix: Solid

Analysis Batch: 42922

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 42759

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.1097		mg/Kg		111	70 - 130	1	35
Toluene	<0.00202	U	0.0990	0.09506		mg/Kg		96	70 - 130	6	35
Ethylbenzene	<0.00202	U *	0.0990	0.1093		mg/Kg		110	70 - 130	5	35
m-Xylene & p-Xylene	<0.00403	U *	0.198	0.2192		mg/Kg		111	70 - 130	6	35
o-Xylene	<0.00202	U *	0.0990	0.1093		mg/Kg		110	70 - 130	4	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	191	S1+	70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

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

Lab Sample ID: MB 880-42625/1-A

Matrix: Solid

Analysis Batch: 42636

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42625

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/27/22 08:34	12/27/22 12:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/27/22 08:34	12/27/22 12:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/27/22 08:34	12/27/22 12:03	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	12/27/22 08:34	12/27/22 12:03	1
o-Terphenyl	106		70 - 130	12/27/22 08:34	12/27/22 12:03	1

Lab Sample ID: LCS 880-42625/2-A

Matrix: Solid

Analysis Batch: 42636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42625

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1093		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	741.9		mg/Kg		74	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

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

Lab Sample ID: LCS 880-42625/2-A

Matrix: Solid

Analysis Batch: 42636

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42625

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-42625/3-A

Matrix: Solid

Analysis Batch: 42636

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42625

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	892.4		mg/Kg		89	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	1000	796.8		mg/Kg		80	70 - 130	7	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-3698-1 MS

Matrix: Solid

Analysis Batch: 42636

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 42625

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1241		mg/Kg		124	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	922.6		mg/Kg		92	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: 890-3698-1 MSD

Matrix: Solid

Analysis Batch: 42636

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 42625

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	1231		mg/Kg		123	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	931.6		mg/Kg		93	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	83		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-42626/1-A

Matrix: Solid

Analysis Batch: 42660

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42626

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/27/22 08:39	12/27/22 13:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/27/22 08:39	12/27/22 13:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/27/22 08:39	12/27/22 13:30	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			12/27/22 08:39	12/27/22 13:30	1
o-Terphenyl	102		70 - 130			12/27/22 08:39	12/27/22 13:30	1

Lab Sample ID: LCS 880-42626/2-A

Matrix: Solid

Analysis Batch: 42660

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42626

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	616.6	*-	mg/Kg		62	70 - 130
Diesel Range Organics (Over C10-C28)	1000	862.0		mg/Kg		86	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	100		70 - 130				
o-Terphenyl	98		70 - 130				

Lab Sample ID: LCSD 880-42626/3-A

Matrix: Solid

Analysis Batch: 42660

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42626

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	681.6	*-	mg/Kg		68	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	1000	951.2		mg/Kg		95	70 - 130	10	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	96		70 - 130						
o-Terphenyl	105		70 - 130						

Lab Sample ID: 880-23040-A-1-E MS

Matrix: Solid

Analysis Batch: 42660

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42626

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	999	1195		mg/Kg		120	70 - 130
Diesel Range Organics (Over C10-C28)	110		999	1100		mg/Kg		99	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

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

Lab Sample ID: 880-23040-A-1-E MS

Matrix: Solid

Analysis Batch: 42660

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42626

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: 880-23040-A-1-F MSD

Matrix: Solid

Analysis Batch: 42660

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42626

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	1089		mg/Kg		109	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	110		999	1011		mg/Kg		90	70 - 130	8	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: MB 880-42627/1-A

Matrix: Solid

Analysis Batch: 42662

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42627

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 13:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 13:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/27/22 08:43	12/27/22 13:30	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	97		70 - 130	12/27/22 08:43	12/27/22 13:30	1
o-Terphenyl	108		70 - 130	12/27/22 08:43	12/27/22 13:30	1

Lab Sample ID: LCS 880-42627/2-A

Matrix: Solid

Analysis Batch: 42662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42627

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	708.3		mg/Kg		71	70 - 130
Diesel Range Organics (Over C10-C28)	1000	889.3		mg/Kg		89	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	95		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-42627/3-A

Matrix: Solid

Analysis Batch: 42662

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42627

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	726.4		mg/Kg		73	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	927.7		mg/Kg		93	70 - 130	4	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	88		70 - 130						
o-Terphenyl	98		70 - 130						

Lab Sample ID: 890-3698-1 MS

Matrix: Solid

Analysis Batch: 42662

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 42627

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	931.8		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1055		mg/Kg		103	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	91		70 - 130								
o-Terphenyl	88		70 - 130								

Lab Sample ID: 890-3698-1 MSD

Matrix: Solid

Analysis Batch: 42662

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 42627

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	905.8		mg/Kg		88	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1028		mg/Kg		101	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	89		70 - 130								
o-Terphenyl	87		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-42528/1-A

Matrix: Solid

Analysis Batch: 42731

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/28/22 15:36	1

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QC Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-42528/2-A

Matrix: Solid

Analysis Batch: 42731

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	253.8		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-42528/3-A

Matrix: Solid

Analysis Batch: 42731

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	239.3		mg/Kg		96	90 - 110	6	20

Lab Sample ID: 880-23042-A-3-B MS

Matrix: Solid

Analysis Batch: 42731

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	6.61		250	249.8		mg/Kg		97	90 - 110

Lab Sample ID: 880-23042-A-3-C MSD

Matrix: Solid

Analysis Batch: 42731

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	6.61		250	235.2		mg/Kg		92	90 - 110	6	20

Lab Sample ID: MB 880-42645/1-A

Matrix: Solid

Analysis Batch: 42733

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/29/22 06:53	1

Lab Sample ID: LCS 880-42645/2-A

Matrix: Solid

Analysis Batch: 42733

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	237.4		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-42645/3-A

Matrix: Solid

Analysis Batch: 42733

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	247.1		mg/Kg		99	90 - 110	4	20

Lab Sample ID: 890-3698-1 MS

Matrix: Solid

Analysis Batch: 42733

Client Sample ID: FS01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	150		250	396.4		mg/Kg		98	90 - 110

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QC Sample Results

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-3698-1 MSD Matrix: Solid Analysis Batch: 42733										Client Sample ID: FS01 Prep Type: Soluble		
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	150		250	395.6		mg/Kg		98	90 - 110	0	20	
Lab Sample ID: 890-3698-11 MS Matrix: Solid Analysis Batch: 42733										Client Sample ID: FS11 Prep Type: Soluble		
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits			
Chloride	170		248	423.0		mg/Kg		102	90 - 110			
Lab Sample ID: 890-3698-11 MSD Matrix: Solid Analysis Batch: 42733										Client Sample ID: FS11 Prep Type: Soluble		
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	170		248	419.8		mg/Kg		101	90 - 110	1	20	

QC Association Summary

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

GC VOA

Prep Batch: 42759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-1	FS01	Total/NA	Solid	5035	
890-3698-2	FS02	Total/NA	Solid	5035	
890-3698-3	FS03	Total/NA	Solid	5035	
890-3698-4	FS04	Total/NA	Solid	5035	
890-3698-5	FS05	Total/NA	Solid	5035	
890-3698-6	FS06	Total/NA	Solid	5035	
890-3698-7	FS07	Total/NA	Solid	5035	
890-3698-8	FS08	Total/NA	Solid	5035	
890-3698-9	FS09	Total/NA	Solid	5035	
890-3698-10	FS10	Total/NA	Solid	5035	
890-3698-11	FS11	Total/NA	Solid	5035	
890-3698-12	FS12	Total/NA	Solid	5035	
890-3698-13	FS14	Total/NA	Solid	5035	
890-3698-14	FS15	Total/NA	Solid	5035	
890-3698-15	FS20	Total/NA	Solid	5035	
MB 880-42759/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42759/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42759/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3698-1 MS	FS01	Total/NA	Solid	5035	
890-3698-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 42922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-1	FS01	Total/NA	Solid	8021B	42759
890-3698-2	FS02	Total/NA	Solid	8021B	42759
890-3698-3	FS03	Total/NA	Solid	8021B	42759
890-3698-4	FS04	Total/NA	Solid	8021B	42759
890-3698-5	FS05	Total/NA	Solid	8021B	42759
890-3698-6	FS06	Total/NA	Solid	8021B	42759
890-3698-7	FS07	Total/NA	Solid	8021B	42759
890-3698-8	FS08	Total/NA	Solid	8021B	42759
890-3698-9	FS09	Total/NA	Solid	8021B	42759
890-3698-10	FS10	Total/NA	Solid	8021B	42759
890-3698-11	FS11	Total/NA	Solid	8021B	42759
890-3698-12	FS12	Total/NA	Solid	8021B	42759
890-3698-13	FS14	Total/NA	Solid	8021B	42759
890-3698-14	FS15	Total/NA	Solid	8021B	42759
890-3698-15	FS20	Total/NA	Solid	8021B	42759
MB 880-42759/5-A	Method Blank	Total/NA	Solid	8021B	42759
LCS 880-42759/1-A	Lab Control Sample	Total/NA	Solid	8021B	42759
LCSD 880-42759/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42759
890-3698-1 MS	FS01	Total/NA	Solid	8021B	42759
890-3698-1 MSD	FS01	Total/NA	Solid	8021B	42759

Analysis Batch: 42985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-1	FS01	Total/NA	Solid	Total BTEX	
890-3698-2	FS02	Total/NA	Solid	Total BTEX	
890-3698-3	FS03	Total/NA	Solid	Total BTEX	
890-3698-4	FS04	Total/NA	Solid	Total BTEX	
890-3698-5	FS05	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

GC VOA (Continued)

Analysis Batch: 42985 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-6	FS06	Total/NA	Solid	Total BTEX	
890-3698-7	FS07	Total/NA	Solid	Total BTEX	
890-3698-8	FS08	Total/NA	Solid	Total BTEX	
890-3698-9	FS09	Total/NA	Solid	Total BTEX	
890-3698-10	FS10	Total/NA	Solid	Total BTEX	
890-3698-11	FS11	Total/NA	Solid	Total BTEX	
890-3698-12	FS12	Total/NA	Solid	Total BTEX	
890-3698-13	FS14	Total/NA	Solid	Total BTEX	
890-3698-14	FS15	Total/NA	Solid	Total BTEX	
890-3698-15	FS20	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 42625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-13	FS14	Total/NA	Solid	8015NM Prep	
890-3698-15	FS20	Total/NA	Solid	8015NM Prep	
MB 880-42625/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-42625/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-42625/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3698-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-3698-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Prep Batch: 42626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-12	FS12	Total/NA	Solid	8015NM Prep	
890-3698-14	FS15	Total/NA	Solid	8015NM Prep	
MB 880-42626/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-42626/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-42626/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23040-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23040-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 42627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-1	FS01	Total/NA	Solid	8015NM Prep	
890-3698-2	FS02	Total/NA	Solid	8015NM Prep	
890-3698-3	FS03	Total/NA	Solid	8015NM Prep	
890-3698-4	FS04	Total/NA	Solid	8015NM Prep	
890-3698-5	FS05	Total/NA	Solid	8015NM Prep	
890-3698-6	FS06	Total/NA	Solid	8015NM Prep	
890-3698-7	FS07	Total/NA	Solid	8015NM Prep	
890-3698-8	FS08	Total/NA	Solid	8015NM Prep	
890-3698-9	FS09	Total/NA	Solid	8015NM Prep	
890-3698-10	FS10	Total/NA	Solid	8015NM Prep	
890-3698-11	FS11	Total/NA	Solid	8015NM Prep	
MB 880-42627/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-42627/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-42627/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3698-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-3698-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

GC Semi VOA

Analysis Batch: 42636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-13	FS14	Total/NA	Solid	8015B NM	42625
890-3698-15	FS20	Total/NA	Solid	8015B NM	42625
MB 880-42625/1-A	Method Blank	Total/NA	Solid	8015B NM	42625
LCS 880-42625/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	42625
LCSD 880-42625/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	42625
890-3698-1 MS	FS01	Total/NA	Solid	8015B NM	42625
890-3698-1 MSD	FS01	Total/NA	Solid	8015B NM	42625

Analysis Batch: 42660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-12	FS12	Total/NA	Solid	8015B NM	42626
890-3698-14	FS15	Total/NA	Solid	8015B NM	42626
MB 880-42626/1-A	Method Blank	Total/NA	Solid	8015B NM	42626
LCS 880-42626/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	42626
LCSD 880-42626/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	42626
880-23040-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	42626
880-23040-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	42626

Analysis Batch: 42662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-1	FS01	Total/NA	Solid	8015B NM	42627
890-3698-2	FS02	Total/NA	Solid	8015B NM	42627
890-3698-3	FS03	Total/NA	Solid	8015B NM	42627
890-3698-4	FS04	Total/NA	Solid	8015B NM	42627
890-3698-5	FS05	Total/NA	Solid	8015B NM	42627
890-3698-6	FS06	Total/NA	Solid	8015B NM	42627
890-3698-7	FS07	Total/NA	Solid	8015B NM	42627
890-3698-8	FS08	Total/NA	Solid	8015B NM	42627
890-3698-9	FS09	Total/NA	Solid	8015B NM	42627
890-3698-10	FS10	Total/NA	Solid	8015B NM	42627
890-3698-11	FS11	Total/NA	Solid	8015B NM	42627
MB 880-42627/1-A	Method Blank	Total/NA	Solid	8015B NM	42627
LCS 880-42627/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	42627
LCSD 880-42627/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	42627
890-3698-1 MS	FS01	Total/NA	Solid	8015B NM	42627
890-3698-1 MSD	FS01	Total/NA	Solid	8015B NM	42627

Analysis Batch: 42798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-1	FS01	Total/NA	Solid	8015 NM	
890-3698-2	FS02	Total/NA	Solid	8015 NM	
890-3698-3	FS03	Total/NA	Solid	8015 NM	
890-3698-4	FS04	Total/NA	Solid	8015 NM	
890-3698-5	FS05	Total/NA	Solid	8015 NM	
890-3698-6	FS06	Total/NA	Solid	8015 NM	
890-3698-7	FS07	Total/NA	Solid	8015 NM	
890-3698-8	FS08	Total/NA	Solid	8015 NM	
890-3698-9	FS09	Total/NA	Solid	8015 NM	
890-3698-10	FS10	Total/NA	Solid	8015 NM	
890-3698-11	FS11	Total/NA	Solid	8015 NM	
890-3698-12	FS12	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

GC Semi VOA (Continued)

Analysis Batch: 42798 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-13	FS14	Total/NA	Solid	8015 NM	
890-3698-14	FS15	Total/NA	Solid	8015 NM	
890-3698-15	FS20	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 42528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-15	FS20	Soluble	Solid	DI Leach	
MB 880-42528/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-42528/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-42528/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-23042-A-3-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-23042-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 42645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-1	FS01	Soluble	Solid	DI Leach	
890-3698-2	FS02	Soluble	Solid	DI Leach	
890-3698-3	FS03	Soluble	Solid	DI Leach	
890-3698-4	FS04	Soluble	Solid	DI Leach	
890-3698-5	FS05	Soluble	Solid	DI Leach	
890-3698-6	FS06	Soluble	Solid	DI Leach	
890-3698-7	FS07	Soluble	Solid	DI Leach	
890-3698-8	FS08	Soluble	Solid	DI Leach	
890-3698-9	FS09	Soluble	Solid	DI Leach	
890-3698-10	FS10	Soluble	Solid	DI Leach	
890-3698-11	FS11	Soluble	Solid	DI Leach	
890-3698-12	FS12	Soluble	Solid	DI Leach	
890-3698-13	FS14	Soluble	Solid	DI Leach	
890-3698-14	FS15	Soluble	Solid	DI Leach	
MB 880-42645/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-42645/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-42645/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3698-1 MS	FS01	Soluble	Solid	DI Leach	
890-3698-1 MSD	FS01	Soluble	Solid	DI Leach	
890-3698-11 MS	FS11	Soluble	Solid	DI Leach	
890-3698-11 MSD	FS11	Soluble	Solid	DI Leach	

Analysis Batch: 42731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-15	FS20	Soluble	Solid	300.0	42528
MB 880-42528/1-A	Method Blank	Soluble	Solid	300.0	42528
LCS 880-42528/2-A	Lab Control Sample	Soluble	Solid	300.0	42528
LCSD 880-42528/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	42528
880-23042-A-3-B MS	Matrix Spike	Soluble	Solid	300.0	42528
880-23042-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	42528

Analysis Batch: 42733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-1	FS01	Soluble	Solid	300.0	42645

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QC Association Summary

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

HPLC/IC (Continued)

Analysis Batch: 42733 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3698-2	FS02	Soluble	Solid	300.0	42645
890-3698-3	FS03	Soluble	Solid	300.0	42645
890-3698-4	FS04	Soluble	Solid	300.0	42645
890-3698-5	FS05	Soluble	Solid	300.0	42645
890-3698-6	FS06	Soluble	Solid	300.0	42645
890-3698-7	FS07	Soluble	Solid	300.0	42645
890-3698-8	FS08	Soluble	Solid	300.0	42645
890-3698-9	FS09	Soluble	Solid	300.0	42645
890-3698-10	FS10	Soluble	Solid	300.0	42645
890-3698-11	FS11	Soluble	Solid	300.0	42645
890-3698-12	FS12	Soluble	Solid	300.0	42645
890-3698-13	FS14	Soluble	Solid	300.0	42645
890-3698-14	FS15	Soluble	Solid	300.0	42645
MB 880-42645/1-A	Method Blank	Soluble	Solid	300.0	42645
LCS 880-42645/2-A	Lab Control Sample	Soluble	Solid	300.0	42645
LCSD 880-42645/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	42645
890-3698-1 MS	FS01	Soluble	Solid	300.0	42645
890-3698-1 MSD	FS01	Soluble	Solid	300.0	42645
890-3698-11 MS	FS11	Soluble	Solid	300.0	42645
890-3698-11 MSD	FS11	Soluble	Solid	300.0	42645

Lab Chronicle

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS01

Lab Sample ID: 890-3698-1

Date Collected: 12/20/22 10:00

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 12:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/30/22 13:20	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 15:13	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 07:19	CH	EET MID

Client Sample ID: FS02

Lab Sample ID: 890-3698-2

Date Collected: 12/20/22 10:05

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 12:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 16:19	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 07:45	CH	EET MID

Client Sample ID: FS03

Lab Sample ID: 890-3698-3

Date Collected: 12/20/22 10:10

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 12:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 16:41	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 07:54	CH	EET MID

Client Sample ID: FS04

Lab Sample ID: 890-3698-4

Date Collected: 12/20/22 10:15

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 13:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS04

Lab Sample ID: 890-3698-4

Date Collected: 12/20/22 10:15

Matrix: Solid

Date Received: 12/21/22 09:54

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			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 17:04	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 08:03	CH	EET MID

Client Sample ID: FS05

Lab Sample ID: 890-3698-5

Date Collected: 12/20/22 13:00

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 13:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 17:26	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 08:11	CH	EET MID

Client Sample ID: FS06

Lab Sample ID: 890-3698-6

Date Collected: 12/20/22 13:05

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 14:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 17:48	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 08:38	CH	EET MID

Client Sample ID: FS07

Lab Sample ID: 890-3698-7

Date Collected: 12/20/22 13:10

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 14:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 18:10	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS07

Lab Sample ID: 890-3698-7

Date Collected: 12/20/22 13:10

Matrix: Solid

Date Received: 12/21/22 09:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 08:46	CH	EET MID

Client Sample ID: FS08

Lab Sample ID: 890-3698-8

Date Collected: 12/20/22 13:15

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 15:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 18:32	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 08:55	CH	EET MID

Client Sample ID: FS09

Lab Sample ID: 890-3698-9

Date Collected: 12/20/22 13:20

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 15:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 18:54	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 09:04	CH	EET MID

Client Sample ID: FS10

Lab Sample ID: 890-3698-10

Date Collected: 12/20/22 13:25

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 16:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 19:16	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 09:12	CH	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS11

Lab Sample ID: 890-3698-11

Date Collected: 12/20/22 13:30

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 18:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	42627	12/27/22 08:43	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42662	12/27/22 20:01	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 09:21	CH	EET MID

Client Sample ID: FS12

Lab Sample ID: 890-3698-12

Date Collected: 12/20/22 13:35

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 18:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 12:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	42626	12/27/22 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42660	12/27/22 22:12	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 09:47	CH	EET MID

Client Sample ID: FS14

Lab Sample ID: 890-3698-13

Date Collected: 12/20/22 14:25

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 19:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	42625	12/27/22 08:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42636	12/27/22 18:28	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 09:56	CH	EET MID

Client Sample ID: FS15

Lab Sample ID: 890-3698-14

Date Collected: 12/20/22 14:30

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 19:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Client Sample ID: FS15

Lab Sample ID: 890-3698-14

Date Collected: 12/20/22 14:30

Matrix: Solid

Date Received: 12/21/22 09:54

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			42798	12/28/22 12:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	42626	12/27/22 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42660	12/27/22 22:56	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	42645	12/27/22 09:22	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42733	12/29/22 10:22	CH	EET MID

Client Sample ID: FS20

Lab Sample ID: 890-3698-15

Date Collected: 12/20/22 15:15

Matrix: Solid

Date Received: 12/21/22 09:54

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	42759	12/27/22 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42922	12/30/22 19:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			42985	12/31/22 10:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			42798	12/28/22 13:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	42625	12/27/22 08:34	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42636	12/27/22 19:11	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	42528	12/22/22 14:07	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	42731	12/28/22 17:53	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: Oxy State F-1

Job ID: 890-3698-1
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: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: Ensolum
Project/Site: Oxy State F-1

Job ID: 890-3698-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3698-1	FS01	Solid	12/20/22 10:00	12/21/22 09:54	1
890-3698-2	FS02	Solid	12/20/22 10:05	12/21/22 09:54	1
890-3698-3	FS03	Solid	12/20/22 10:10	12/21/22 09:54	1
890-3698-4	FS04	Solid	12/20/22 10:15	12/21/22 09:54	1
890-3698-5	FS05	Solid	12/20/22 13:00	12/21/22 09:54	1
890-3698-6	FS06	Solid	12/20/22 13:05	12/21/22 09:54	1
890-3698-7	FS07	Solid	12/20/22 13:10	12/21/22 09:54	1
890-3698-8	FS08	Solid	12/20/22 13:15	12/21/22 09:54	1
890-3698-9	FS09	Solid	12/20/22 13:20	12/21/22 09:54	1
890-3698-10	FS10	Solid	12/20/22 13:25	12/21/22 09:54	1
890-3698-11	FS11	Solid	12/20/22 13:30	12/21/22 09:54	1
890-3698-12	FS12	Solid	12/20/22 13:35	12/21/22 09:54	1
890-3698-13	FS14	Solid	12/20/22 14:25	12/21/22 09:54	1
890-3698-14	FS15	Solid	12/20/22 14:30	12/21/22 09:54	1
890-3698-15	FS20	Solid	12/20/22 15:15	12/21/22 09:54	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 2

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432.557.8895	Email:	kjennings@ensolum.com

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:	Oxy State F-1	Turn Around	Pres. Code	ANALYSIS REQUEST	Preservative Codes
Project Number:	03D205705-1	☒ Routine ☐ Rush			None: NO DI Water: H ₂ O
Project Location:	Lea County, NM	Due Date:			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	Verice: ☒ Yes ☒ No			H ₃ PO ₄ : HP
Samples Received Intact:	☒ Yes ☒ No	Thermometer ID: ☒ Yes ☒ No			NaHSO ₄ : NABIS
Cooler Custody Seals:	☒ Yes ☒ No	Correction Factor: ☒ Yes ☒ No			Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	☒ Yes ☒ No	Temperature Reading: ☒ Yes ☒ No			Zn Acetate+NaOH: Zn
Total Containers:		Corrected Temperature: ☒ Yes ☒ No			NaOH+Ascorbic Acid: SAPC



890-3698 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	ANALYSIS REQUEST	Preservative Codes
FS01	S	12.20.22	1000	1'	C	1	X	X	X		
FS02	S	12.20.22	1005	1'	C	1	X	X	X		
FS03	S	12.20.22	1010	1'	C	1	X	X	X		
FS04	S	12.20.22	1015	1'	C	1	X	X	X		
FS05	S	12.20.22	1300	1'	C	1	X	X	X		
FS06	S	12.20.22	1305	1'	C	1	X	X	X		
FS07	S	12.20.22	1310	1'	C	1	X	X	X		
FS08	S	12.20.22	1315	1'	C	1	X	X	X		
FS09	S	12.20.22	1320	1'	C	1	X	X	X		
FS10	S	12.20.22	1325	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 Mo Ni K Se Ag SiO₂ 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
		12/21/22 0854			
3		4			
5		6			



Environment Testing
Xerco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3343
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No:

Page 7 of 6

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432.557.8895	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:

[illegible][illegible]

Total	200.7 / 6010	200.8 / 6020:	Circle Method(s) and Metal(s) to be analyzed																											
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
TCPLP / 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 Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno 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 Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		12/21/22 0954			
3		4			
5		6			

Printed Date: 12/21/2022 09:54

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3698-1

SDG Number: Lea County, NM

Login Number: 3698

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: 890-3698-1

SDG Number: Lea County, NM

Login Number: 3698

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 12/22/22 12:50 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

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- 2
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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 1/3/2023 8:58:15 AM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER 03D2057051

JOB NUMBER

890-3716-1

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
1/3/2023 8:58:15 AM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-3716-1
SDG: 03D2057051

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: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

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, 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: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

Job ID: 890-3716-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-3716-1
-----------	-----------------------------

Receipt

The sample was received on 12/27/2022 1:31 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 1.2°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: FS22 (890-3716-1).

GC VOA

Method 8021B: 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 880-42898 and analytical batch 880-42933. The associated laboratory control sample (LCS) met acceptance criteria.

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

GC Semi VOA

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.

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

Client Sample ID: FS22

Lab Sample ID: 890-3716-1

Date Collected: 12/21/22 12:25

Matrix: Solid

Date Received: 12/27/22 13:31

Sample Depth: 12

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		12/29/22 13:35	12/31/22 20:27	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/29/22 13:35	12/31/22 20:27	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/29/22 13:35	12/31/22 20:27	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/29/22 13:35	12/31/22 20:27	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/29/22 13:35	12/31/22 20:27	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/29/22 13:35	12/31/22 20:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	12/29/22 13:35	12/31/22 20:27	1
1,4-Difluorobenzene (Surr)	111		70 - 130	12/29/22 13:35	12/31/22 20:27	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			01/03/23 09:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	122		50.0	mg/Kg			12/31/22 11:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/30/22 08:22	12/30/22 23:00	1
Diesel Range Organics (Over C10-C28)	122		50.0	mg/Kg		12/30/22 08:22	12/30/22 23:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/30/22 08:22	12/30/22 23:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	12/30/22 08:22	12/30/22 23:00	1
o-Terphenyl	78		70 - 130	12/30/22 08:22	12/30/22 23:00	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	333		4.98	mg/Kg			12/31/22 03:29	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

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)
880-23052-A-81-B MS	Matrix Spike	99	110
880-23052-A-81-C MSD	Matrix Spike Duplicate	102	111
890-3716-1	FS22	102	111
LCS 880-42898/1-A	Lab Control Sample	98	108
LCSD 880-42898/2-A	Lab Control Sample Dup	97	110
MB 880-42894/5-A	Method Blank	94	104
MB 880-42898/5-A	Method Blank	94	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)
880-23045-A-1-F MS	Matrix Spike	116	90
880-23045-A-1-G MSD	Matrix Spike Duplicate	111	88
890-3716-1	FS22	100	78
LCS 880-42927/2-A	Lab Control Sample	113	123
LCSD 880-42927/3-A	Lab Control Sample Dup	118	132 S1+
MB 880-42927/1-A	Method Blank	125	124
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-42894/5-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42894

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/29/22 13:11	12/31/22 01:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	12/29/22 13:11	12/31/22 01:40	1
1,4-Difluorobenzene (Surr)	104		70 - 130	12/29/22 13:11	12/31/22 01:40	1

Lab Sample ID: MB 880-42898/5-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42898

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/29/22 13:35	12/31/22 13:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	12/29/22 13:35	12/31/22 13:19	1
1,4-Difluorobenzene (Surr)	108		70 - 130	12/29/22 13:35	12/31/22 13:19	1

Lab Sample ID: LCS 880-42898/1-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1101		mg/Kg		110	70 - 130
Toluene	0.100	0.09919		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09418		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1909		mg/Kg		95	70 - 130
o-Xylene	0.100	0.09308		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-42898/2-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09527		mg/Kg		95	70 - 130	14	35

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

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

Lab Sample ID: LCSD 880-42898/2-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08669		mg/Kg		87	70 - 130	13	35
Ethylbenzene	0.100	0.08293		mg/Kg		83	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.1683		mg/Kg		84	70 - 130	13	35
o-Xylene	0.100	0.08294		mg/Kg		83	70 - 130	12	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 880-23052-A-81-B MS

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130
Toluene	<0.00202	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130
Ethylbenzene	<0.00202	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.198	<0.00396	U F1	mg/Kg		0	70 - 130
o-Xylene	<0.00202	U F1	0.0990	<0.00198	U F1	mg/Kg		0.4	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 880-23052-A-81-C MSD

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.0992	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	<0.00202	U F1	0.0992	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00202	U F1	0.0992	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00403	U F1	0.198	<0.00397	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00202	U F1	0.0992	<0.00198	U F1	mg/Kg		0.4	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

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

Lab Sample ID: MB 880-42927/1-A

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42927

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/30/22 08:22	12/30/22 13:03	1

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

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

Lab Sample ID: MB 880-42927/1-A

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42927

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		12/30/22 08:22	12/30/22 13:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/30/22 08:22	12/30/22 13:03	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			12/30/22 08:22	12/30/22 13:03	1
o-Terphenyl	124		70 - 130			12/30/22 08:22	12/30/22 13:03	1

Lab Sample ID: LCS 880-42927/2-A

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42927

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	866.9		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1094		mg/Kg		109	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	113		70 - 130				
o-Terphenyl	123		70 - 130				

Lab Sample ID: LCSD 880-42927/3-A

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42927

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	896.1		mg/Kg		90	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1201		mg/Kg		120	70 - 130	9	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	118		70 - 130						
o-Terphenyl	132	S1+	70 - 130						

Lab Sample ID: 880-23045-A-1-F MS

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42927

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 F1	999	1192		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	1339	F1	mg/Kg		132	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	116		70 - 130						
o-Terphenyl	90		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

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

Lab Sample ID: 880-23045-A-1-G MSD

Matrix: Solid

Analysis Batch: 42935

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42927

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 F1	999	1415	F1	mg/Kg		138	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	1291		mg/Kg		128	70 - 130	4	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	111		70 - 130								
o-Terphenyl	88		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-42868/1-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/31/22 02:51	1

Lab Sample ID: LCS 880-42868/2-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	263.9		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-42868/3-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	256.2		mg/Kg		102	90 - 110	3	20

Lab Sample ID: 890-3713-A-1-B MS

Matrix: Solid

Analysis Batch: 42948

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	<5.05	U	253	266.0		mg/Kg		105	90 - 110

Lab Sample ID: 890-3713-A-1-C MSD

Matrix: Solid

Analysis Batch: 42948

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	<5.05	U	253	258.4		mg/Kg		102	90 - 110	3	20

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

GC VOA

Prep Batch: 42894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-42894/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 42898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3716-1	FS22	Total/NA	Solid	5035	
MB 880-42898/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42898/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42898/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-23052-A-81-B MS	Matrix Spike	Total/NA	Solid	5035	
880-23052-A-81-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 42933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3716-1	FS22	Total/NA	Solid	8021B	42898
MB 880-42894/5-A	Method Blank	Total/NA	Solid	8021B	42894
MB 880-42898/5-A	Method Blank	Total/NA	Solid	8021B	42898
LCS 880-42898/1-A	Lab Control Sample	Total/NA	Solid	8021B	42898
LCSD 880-42898/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42898
880-23052-A-81-B MS	Matrix Spike	Total/NA	Solid	8021B	42898
880-23052-A-81-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	42898

Analysis Batch: 43057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3716-1	FS22	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 42927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3716-1	FS22	Total/NA	Solid	8015NM Prep	
MB 880-42927/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-42927/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-42927/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23045-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23045-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 42935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3716-1	FS22	Total/NA	Solid	8015B NM	42927
MB 880-42927/1-A	Method Blank	Total/NA	Solid	8015B NM	42927
LCS 880-42927/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	42927
LCSD 880-42927/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	42927
880-23045-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	42927
880-23045-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	42927

Analysis Batch: 43014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3716-1	FS22	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

HPLC/IC

Leach Batch: 42868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3716-1	FS22	Soluble	Solid	DI Leach	
MB 880-42868/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-42868/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-42868/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3713-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3713-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 42948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3716-1	FS22	Soluble	Solid	300.0	42868
MB 880-42868/1-A	Method Blank	Soluble	Solid	300.0	42868
LCS 880-42868/2-A	Lab Control Sample	Soluble	Solid	300.0	42868
LCSD 880-42868/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	42868
890-3713-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	42868
890-3713-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	42868

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

Client Sample ID: FS22
Date Collected: 12/21/22 12:25
Date Received: 12/27/22 13:31

Lab Sample ID: 890-3716-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	42898	12/29/22 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42933	12/31/22 20:27	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			43057	01/03/23 09:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43014	12/31/22 11:21	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	42927	12/30/22 08:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	42935	12/30/22 23:00	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	42868	12/29/22 10:52	KS	EET MID
Soluble	Analysis	300.0		1			42948	12/31/22 03:29	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: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

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: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3716-1
SDG: 03D2057051

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3716-1	FS22	Solid	12/21/22 12:25	12/27/22 13:31	12

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



Environment Testing
Xenco

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

Chain of Custody

Work Order No:

Page 1 of 1
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Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Highway	Address:	3122 Nat'l Parks Highway
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	kjennings@ensolum.com

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

Project Name:		OXY STATE F-1		Turn Around		Pras. Code		ANALYSIS REQUEST										Preservative Codes					
Project Number:		03D02057051		☒ Routine ☐ Rush														None: NO					
Project Location:		32.379909, -103.198780		Due Date:														Cool: Cool					
Sampler's Name:		Julianna Falcomata		TAT starts the day received by the lab. If received by 4:30pm														HCL: HC					
PO #:																		H ₂ SO ₄ : H ₂					
SAMPLE RECEIPT		Temp Blank:		☒ Yes ☐ No		Wet Ice:		☒ Yes ☐ No												H ₃ PO ₄ : HP			
Samples Received Intact:		☒ Yes ☐ No		Thermometer ID:		T _W 007														NaHSO ₄ : NABIS			
Cooler Custody Seals:		☒ Yes ☐ No		Correction Factor:		-0.2														Na ₂ S ₂ O ₃ : NaSO ₃			
Sample Custody Seals:		☒ Yes ☐ No		Temperature Reading:		1.4														Zn Acetate+NaOH: Zn			
Total Containers:				Corrected Temperature:		1.2														NaOH+Ascorbic Acid: SACP			

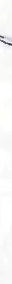
[illegible]

Total	200.7 / 6010	200.8 / 6020:
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Circle Method(s) and Metal(s) to be analyzed

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	II	Sn	U	V	Zn
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																											

of service, Eurofins Xenoco 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 Xenoco. A minimum charge of \$65.00 will be applied to each project, and a charge of \$5 for each sample submitted to Eurofins Xenoco, but not emulayed. These terms will be enforced unless previously negotiated.

Ref/Inquired by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		12.27.22 1334			
2					
3					
4					
5					

Revised Date 08/23/2020 Rev 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3716-1

SDG Number: 03D2057051

Login Number: 3716

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: 890-3716-1

SDG Number: 03D2057051

Login Number: 3716

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 12/29/22 11:42 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
- 4
- 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 2/14/2023 12:53:07 PM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER 03D205705

JOB NUMBER

890-4047-1

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
2/14/2023 12:53:07 PM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-4047-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

Job ID: 890-4047-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4047-1****Receipt**

The sample was received on 2/7/2023 1:28 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS01 (890-4047-1).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-46016 and analytical batch 880-46059 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

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-45929/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4048-A-4-B) and (890-4048-A-4-C MS). 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: SS01 (890-4047-1). 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 880-45929 and analytical batch 880-46067. 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: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

Client Sample ID: SS01

Lab Sample ID: 890-4047-1

Date Collected: 02/07/23 12:00

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 0.2

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		02/10/23 14:55	02/11/23 16:44	1
Toluene	<0.00201	U *	0.00201	mg/Kg		02/10/23 14:55	02/11/23 16:44	1
Ethylbenzene	<0.00201	U *	0.00201	mg/Kg		02/10/23 14:55	02/11/23 16:44	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/10/23 14:55	02/11/23 16:44	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/10/23 14:55	02/11/23 16:44	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/10/23 14:55	02/11/23 16:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	02/10/23 14:55	02/11/23 16:44	1
1,4-Difluorobenzene (Surr)	111		70 - 130	02/10/23 14:55	02/11/23 16:44	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			02/13/23 19:39	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			02/13/23 11:21	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 17:28	02/12/23 21:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/09/23 17:28	02/12/23 21:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:28	02/12/23 21:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	60	S1-	70 - 130	02/09/23 17:28	02/12/23 21:21	1
o-Terphenyl	57	S1-	70 - 130	02/09/23 17:28	02/12/23 21:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.8		4.99	mg/Kg			02/10/23 05:45	1

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Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

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)
890-4047-1	SS01	111	111
890-4047-1 MS	SS01	113	112
890-4047-1 MSD	SS01	109	112
LCS 880-46016/1-A	Lab Control Sample	108	110
LCSD 880-46016/2-A	Lab Control Sample Dup	114	110
MB 880-46016/5-A	Method Blank	111	105
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)
890-4047-1	SS01	60 S1-	57 S1-
890-4048-A-4-C MS	Matrix Spike	67 S1-	61 S1-
890-4048-A-4-D MSD	Matrix Spike Duplicate	80	74
LCS 880-45929/2-A	Lab Control Sample	129	108
LCSD 880-45929/3-A	Lab Control Sample Dup	138 S1+	124
MB 880-45929/1-A	Method Blank	75	74
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46016/5-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46016

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 14:55	02/11/23 16:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	02/10/23 14:55	02/11/23 16:15	1
1,4-Difluorobenzene (Surr)	105		70 - 130	02/10/23 14:55	02/11/23 16:15	1

Lab Sample ID: LCS 880-46016/1-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07008		mg/Kg		70	70 - 130
Toluene	0.100	0.06866	*-	mg/Kg		69	70 - 130
Ethylbenzene	0.100	0.06746	*-	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	0.200	0.1444		mg/Kg		72	70 - 130
o-Xylene	0.100	0.07197		mg/Kg		72	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-46016/2-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07747		mg/Kg		77	70 - 130	10	35
Toluene	0.100	0.07237		mg/Kg		72	70 - 130	5	35
Ethylbenzene	0.100	0.07187		mg/Kg		72	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1528		mg/Kg		76	70 - 130	6	35
o-Xylene	0.100	0.07577		mg/Kg		76	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-4047-1 MS

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0990	0.1079		mg/Kg		109	70 - 130
Toluene	<0.00201	U *-	0.0990	0.1062		mg/Kg		107	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

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

Lab Sample ID: 890-4047-1 MS

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U *	0.0990	0.1065		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.198	0.2259		mg/Kg		114	70 - 130
o-Xylene	<0.00201	U	0.0990	0.1081		mg/Kg		109	70 - 130

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

Lab Sample ID: 890-4047-1 MSD

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.1140		mg/Kg		114	70 - 130	6	35
Toluene	<0.00201	U *	0.0998	0.1074		mg/Kg		108	70 - 130	1	35
Ethylbenzene	<0.00201	U *	0.0998	0.1067		mg/Kg		107	70 - 130	0	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2247		mg/Kg		113	70 - 130	1	35
o-Xylene	<0.00201	U	0.0998	0.1069		mg/Kg		107	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

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

Lab Sample ID: MB 880-45929/1-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45929

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 17:28	02/12/23 09:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 09:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 09:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130	02/09/23 17:28	02/12/23 09:44	1
o-Terphenyl	74		70 - 130	02/09/23 17:28	02/12/23 09:44	1

Lab Sample ID: LCS 880-45929/2-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45929

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	936.7		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	1000	847.8		mg/Kg		85	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

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

Lab Sample ID: LCS 880-45929/2-A
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45929

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	129		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: LCSD 880-45929/3-A
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45929

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1047		mg/Kg		105	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	959.5		mg/Kg		96	70 - 130	12	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	138	S1+	70 - 130
o-Terphenyl	124		70 - 130

Lab Sample ID: 890-4048-A-4-C MS
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45929

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	998	<49.9	U F1	mg/Kg		-2	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	<49.9	U F1	mg/Kg		-0.1	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	67	S1-	70 - 130
o-Terphenyl	61	S1-	70 - 130

Lab Sample ID: 890-4048-A-4-D MSD
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45929

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	997	52.93	F1 F2	mg/Kg		0.8	70 - 130	69	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	997	<49.9	U F1	mg/Kg		-0.1	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	74		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

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: 890-4037-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	292		249	533.0		mg/Kg		97	90 - 110

Lab Sample ID: 890-4037-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	292		249	545.1		mg/Kg		102	90 - 110	2	20

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

GC VOA

Prep Batch: 46016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4047-1	SS01	Total/NA	Solid	5035	
MB 880-46016/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46016/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46016/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4047-1 MS	SS01	Total/NA	Solid	5035	
890-4047-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 46059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4047-1	SS01	Total/NA	Solid	8021B	46016
MB 880-46016/5-A	Method Blank	Total/NA	Solid	8021B	46016
LCS 880-46016/1-A	Lab Control Sample	Total/NA	Solid	8021B	46016
LCSD 880-46016/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46016
890-4047-1 MS	SS01	Total/NA	Solid	8021B	46016
890-4047-1 MSD	SS01	Total/NA	Solid	8021B	46016

Analysis Batch: 46241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4047-1	SS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4047-1	SS01	Total/NA	Solid	8015NM Prep	
MB 880-45929/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45929/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4048-A-4-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4048-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4047-1	SS01	Total/NA	Solid	8015B NM	45929
MB 880-45929/1-A	Method Blank	Total/NA	Solid	8015B NM	45929
LCS 880-45929/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45929
LCSD 880-45929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45929
890-4048-A-4-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45929
890-4048-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45929

Analysis Batch: 46126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4047-1	SS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4047-1	SS01	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	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

HPLC/IC (Continued)

Leach Batch: 45807 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4037-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4037-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
890-4047-1	SS01	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
890-4037-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45807
890-4037-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45807

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

Client Sample ID: SS01
Date Collected: 02/07/23 12:00
Date Received: 02/07/23 13:28

Lab Sample ID: 890-4047-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/11/23 16:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46241	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46126	02/13/23 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45929	02/09/23 17:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46067	02/12/23 21:21	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	45807	02/08/23 14:35	KS	EET MID
Soluble	Analysis	300.0		1			45909	02/10/23 05:45	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4047-1
SDG: 03D205705

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4047-1	SS01	Solid	02/07/23 12:00	02/07/23 13:28	0.2

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Chain of Custody

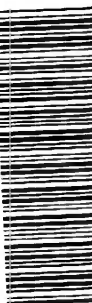
Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, itaicomata@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:		Dwy State F-1		Turn Around		☒ Routine ☐ Rush		Pres. Code	
Project Number:		030205705							
Project Location:		32501131-103,72639		Due Date:					
Sampler's Name:		Juliana Falcomata		TAT starts the day received by the lab, if received by 4:30pm					
PO #:				Wet Ice:		☒ Yes ☐ No			
SAMPLE RECEIPT		Temp Blank:		☒ Yes ☐ No		Thermometer ID:		11111111	
Samples Received Intact:		☒ Yes ☐ No		Correction Factor:		-0.0			
Cooler Custody Seals:		☒ Yes ☐ No		Temperature Reading:		1.9			
Sample Custody Seals:		☒ Yes ☐ No		Corrected Temperature:					
Total Containers:									
Parameters									
RIDES (EPA: 300.0)									
015)									
8021									
ANALYSIS REQUEST									
									
890-4047 Chain of Custody									
None: NO					DI Water: H ₂ O				
Cool: Cool					MeOH: Me				
HCL: HC					HNO ₃ : HN				
H ₂ SO ₄ : H ₂					NaOH: Na				
H ₃ PO ₄ : HP									
NaHSO ₄ : NABIS									
Na ₂ S ₂ O ₃ : NASO ₃									
Zn Acetate+NaOH: Zn									
NaOH+Ascorbic Acid: SACP									

[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
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 is required for the relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno 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 Xeno. A minimum charge of \$65.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, 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
		2-7-23 1328			

Printed Date: 08/25/2020 Row: 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4047-1

SDG Number: 03D205705

Login Number: 4047

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: 890-4047-1

SDG Number: 03D205705

Login Number: 4047

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/09/23 12:36 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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/13/2023 7:34:08 PM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER 32.50113,-103.22639

JOB NUMBER

890-4048-1

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 7:34:08 PM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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	15
Lab Chronicle	17
Certification Summary	19
Method Summary	20
Sample Summary	21
Chain of Custody	22
Receipt Checklists	23

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

Definitions/Glossary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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

HPLC/IC

Qualifier	Qualifier Description
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: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

Job ID: 890-4048-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4048-1****Receipt**

The samples were received on 2/7/2023 1:28 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 1.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH01A (890-4048-1), PH01C (890-4048-2), PH01E (890-4048-3), PH02A (890-4048-4) and PH02E (890-4048-5).

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: Surrogate recovery for the following sample was outside control limits: (LCSD 880-45929/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH02A (890-4048-4) and (890-4048-A-4-C MS). 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: PH01A (890-4048-1), PH01C (890-4048-2), PH01E (890-4048-3) and PH02E (890-4048-5). 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 880-45929 and analytical batch 880-46067. 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: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

Client Sample ID: PH01A

Lab Sample ID: 890-4048-1

Date Collected: 02/06/23 10:55

Matrix: Solid

Date Received: 02/07/23 13:28

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		02/10/23 14:34	02/12/23 15:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:53	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/10/23 14:34	02/12/23 15:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 15:53	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/10/23 14:34	02/12/23 15:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	02/10/23 14:34	02/12/23 15:53	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/10/23 14:34	02/12/23 15:53	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			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	<50.0	U	50.0	mg/Kg			02/13/23 11:21	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		02/09/23 17:28	02/12/23 14:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 14:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 14:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	62	S1-	70 - 130	02/09/23 17:28	02/12/23 14:19	1
o-Terphenyl	57	S1-	70 - 130	02/09/23 17:28	02/12/23 14:19	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.6		4.95	mg/Kg			02/10/23 05:49	1

Client Sample ID: PH01C

Lab Sample ID: 890-4048-2

Date Collected: 02/06/23 11:05

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 16:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 16:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 16:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 14:34	02/12/23 16:13	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 16:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 14:34	02/12/23 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	02/10/23 14:34	02/12/23 16:13	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

Client Sample ID: PH01C

Lab Sample ID: 890-4048-2

Date Collected: 02/06/23 11:05

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	109		70 - 130	02/10/23 14:34	02/12/23 16:13	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			02/13/23 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 11:21	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 17:28	02/12/23 14:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/09/23 17:28	02/12/23 14:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:28	02/12/23 14:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	62	S1-	70 - 130			02/09/23 17:28	02/12/23 14:41	1
o-Terphenyl	58	S1-	70 - 130			02/09/23 17:28	02/12/23 14:41	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	866		5.05	mg/Kg			02/10/23 05:54	1

Client Sample ID: PH01E

Lab Sample ID: 890-4048-3

Date Collected: 02/06/23 11:35

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 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		02/10/23 14:34	02/12/23 16:34	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 16:34	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 16:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 14:34	02/12/23 16:34	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 16:34	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 14:34	02/12/23 16:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	02/10/23 14:34	02/12/23 16:34	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/10/23 14:34	02/12/23 16:34	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			02/13/23 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 11:21	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

Client Sample ID: PH01E

Lab Sample ID: 890-4048-3

Date Collected: 02/06/23 11:35

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 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		02/09/23 17:28	02/12/23 15:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/09/23 17:28	02/12/23 15:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:28	02/12/23 15:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	61	S1-	70 - 130			02/09/23 17:28	02/12/23 15:03	1
o-Terphenyl	57	S1-	70 - 130			02/09/23 17:28	02/12/23 15:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2810		24.9	mg/Kg			02/10/23 05:59	5

Client Sample ID: PH02A

Lab Sample ID: 890-4048-4

Date Collected: 02/06/23 15:30

Matrix: Solid

Date Received: 02/07/23 13:28

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		02/10/23 14:34	02/12/23 16:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 16:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 16:54	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/10/23 14:34	02/12/23 16:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:34	02/12/23 16:54	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/10/23 14:34	02/12/23 16:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			02/10/23 14:34	02/12/23 16:54	1
1,4-Difluorobenzene (Surr)	95		70 - 130			02/10/23 14:34	02/12/23 16:54	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	<50.0	U	50.0	mg/Kg			02/13/23 11:21	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		02/09/23 17:28	02/12/23 13:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U F1	50.0	mg/Kg		02/09/23 17:28	02/12/23 13:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 13:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 130			02/09/23 17:28	02/12/23 13:14	1
o-Terphenyl	67	S1-	70 - 130			02/09/23 17:28	02/12/23 13:14	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

Client Sample ID: PH02A

Lab Sample ID: 890-4048-4

Date Collected: 02/06/23 15:30

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.3		4.95	mg/Kg			02/10/23 06:03	1

Client Sample ID: PH02E

Lab Sample ID: 890-4048-5

Date Collected: 02/06/23 15:50

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 5

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		02/10/23 14:34	02/12/23 17:15	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/10/23 14:34	02/12/23 17:15	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/10/23 14:34	02/12/23 17:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/10/23 14:34	02/12/23 17:15	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/10/23 14:34	02/12/23 17:15	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/10/23 14:34	02/12/23 17:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			02/10/23 14:34	02/12/23 17:15	1
1,4-Difluorobenzene (Surr)	112		70 - 130			02/10/23 14:34	02/12/23 17:15	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			02/13/23 09:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/13/23 11:21	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		02/09/23 17:28	02/12/23 15:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 15:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 15:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	61	S1-	70 - 130			02/09/23 17:28	02/12/23 15:26	1
o-Terphenyl	57	S1-	70 - 130			02/09/23 17:28	02/12/23 15:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47.9		5.00	mg/Kg			02/10/23 06:08	1

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Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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-A-1-B MS	Matrix Spike	109	99
890-4035-A-1-C MSD	Matrix Spike Duplicate	108	96
890-4048-1	PH01A	120	109
890-4048-2	PH01C	130	109
890-4048-3	PH01E	128	109
890-4048-4	PH02A	106	95
890-4048-5	PH02E	121	112
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)
890-4048-1	PH01A	62 S1-	57 S1-
890-4048-2	PH01C	62 S1-	58 S1-
890-4048-3	PH01E	61 S1-	57 S1-
890-4048-4	PH02A	71	67 S1-
890-4048-4 MS	PH02A	67 S1-	61 S1-
890-4048-4 MSD	PH02A	80	74
890-4048-5	PH02E	61 S1-	57 S1-
LCS 880-45929/2-A	Lab Control Sample	129	108
LCSD 880-45929/3-A	Lab Control Sample Dup	138 S1+	124
MB 880-45929/1-A	Method Blank	75	74
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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-A-1-B MS

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike

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

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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

Lab Sample ID: 890-4035-A-1-B MS

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike

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-A-1-C MSD

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike Duplicate

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 880-45929/1-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45929

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 17:28	02/12/23 09:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 09:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 09:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130	02/09/23 17:28	02/12/23 09:44	1
o-Terphenyl	74		70 - 130	02/09/23 17:28	02/12/23 09:44	1

Lab Sample ID: LCS 880-45929/2-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45929

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	936.7		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	1000	847.8		mg/Kg		85	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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

Lab Sample ID: LCS 880-45929/2-A
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45929

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	129		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: LCSD 880-45929/3-A
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45929

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1047		mg/Kg		105	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	959.5		mg/Kg		96	70 - 130	12	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	138	S1+	70 - 130
o-Terphenyl	124		70 - 130

Lab Sample ID: 890-4048-4 MS
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: PH02A
Prep Type: Total/NA
Prep Batch: 45929

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	998	<49.9	U F1	mg/Kg		-2	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	<49.9	U F1	mg/Kg		-0.1	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	67	S1-	70 - 130
o-Terphenyl	61	S1-	70 - 130

Lab Sample ID: 890-4048-4 MSD
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: PH02A
Prep Type: Total/NA
Prep Batch: 45929

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	997	52.93	F1 F2	mg/Kg		0.8	70 - 130	69	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	997	<49.9	U F1	mg/Kg		-0.1	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	74		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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: 890-4037-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	292		249	533.0		mg/Kg		97	90 - 110

Lab Sample ID: 890-4037-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	292		249	545.1		mg/Kg		102	90 - 110	2	20

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

GC VOA

Prep Batch: 46011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4048-1	PH01A	Total/NA	Solid	5035	
890-4048-2	PH01C	Total/NA	Solid	5035	
890-4048-3	PH01E	Total/NA	Solid	5035	
890-4048-4	PH02A	Total/NA	Solid	5035	
890-4048-5	PH02E	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-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4035-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4048-1	PH01A	Total/NA	Solid	8021B	46011
890-4048-2	PH01C	Total/NA	Solid	8021B	46011
890-4048-3	PH01E	Total/NA	Solid	8021B	46011
890-4048-4	PH02A	Total/NA	Solid	8021B	46011
890-4048-5	PH02E	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-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46011
890-4035-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46011

Analysis Batch: 46095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4048-1	PH01A	Total/NA	Solid	Total BTEX	
890-4048-2	PH01C	Total/NA	Solid	Total BTEX	
890-4048-3	PH01E	Total/NA	Solid	Total BTEX	
890-4048-4	PH02A	Total/NA	Solid	Total BTEX	
890-4048-5	PH02E	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4048-1	PH01A	Total/NA	Solid	8015NM Prep	
890-4048-2	PH01C	Total/NA	Solid	8015NM Prep	
890-4048-3	PH01E	Total/NA	Solid	8015NM Prep	
890-4048-4	PH02A	Total/NA	Solid	8015NM Prep	
890-4048-5	PH02E	Total/NA	Solid	8015NM Prep	
MB 880-45929/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45929/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4048-4 MS	PH02A	Total/NA	Solid	8015NM Prep	
890-4048-4 MSD	PH02A	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4048-1	PH01A	Total/NA	Solid	8015B NM	45929
890-4048-2	PH01C	Total/NA	Solid	8015B NM	45929

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

GC Semi VOA (Continued)

Analysis Batch: 46067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4048-3	PH01E	Total/NA	Solid	8015B NM	45929
890-4048-4	PH02A	Total/NA	Solid	8015B NM	45929
890-4048-5	PH02E	Total/NA	Solid	8015B NM	45929
MB 880-45929/1-A	Method Blank	Total/NA	Solid	8015B NM	45929
LCS 880-45929/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45929
LCSD 880-45929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45929
890-4048-4 MS	PH02A	Total/NA	Solid	8015B NM	45929
890-4048-4 MSD	PH02A	Total/NA	Solid	8015B NM	45929

Analysis Batch: 46120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4048-1	PH01A	Total/NA	Solid	8015 NM	
890-4048-2	PH01C	Total/NA	Solid	8015 NM	
890-4048-3	PH01E	Total/NA	Solid	8015 NM	
890-4048-4	PH02A	Total/NA	Solid	8015 NM	
890-4048-5	PH02E	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4048-1	PH01A	Soluble	Solid	DI Leach	
890-4048-2	PH01C	Soluble	Solid	DI Leach	
890-4048-3	PH01E	Soluble	Solid	DI Leach	
890-4048-4	PH02A	Soluble	Solid	DI Leach	
890-4048-5	PH02E	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	
890-4037-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4037-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
890-4048-1	PH01A	Soluble	Solid	300.0	45807
890-4048-2	PH01C	Soluble	Solid	300.0	45807
890-4048-3	PH01E	Soluble	Solid	300.0	45807
890-4048-4	PH02A	Soluble	Solid	300.0	45807
890-4048-5	PH02E	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
890-4037-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45807
890-4037-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45807

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

Client Sample ID: PH01A

Lab Sample ID: 890-4048-1

Date Collected: 02/06/23 10:55

Matrix: Solid

Date Received: 02/07/23 13:28

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	46011	02/10/23 14:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46074	02/12/23 15:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46095	02/13/23 09:13	MNR	EET MID
Total/NA	Analysis	8015 NM		1			46120	02/13/23 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45929	02/09/23 17:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46067	02/12/23 14:19	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	45807	02/08/23 14:35	KS	EET MID
Soluble	Analysis	300.0		1			45909	02/10/23 05:49	CH	EET MID

Client Sample ID: PH01C

Lab Sample ID: 890-4048-2

Date Collected: 02/06/23 11:05

Matrix: Solid

Date Received: 02/07/23 13:28

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	46011	02/10/23 14:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46074	02/12/23 16:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46095	02/13/23 09:13	MNR	EET MID
Total/NA	Analysis	8015 NM		1			46120	02/13/23 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45929	02/09/23 17:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46067	02/12/23 14:41	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	45807	02/08/23 14:35	KS	EET MID
Soluble	Analysis	300.0		1			45909	02/10/23 05:54	CH	EET MID

Client Sample ID: PH01E

Lab Sample ID: 890-4048-3

Date Collected: 02/06/23 11:35

Matrix: Solid

Date Received: 02/07/23 13:28

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	46011	02/10/23 14:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46074	02/12/23 16:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46095	02/13/23 09:13	MNR	EET MID
Total/NA	Analysis	8015 NM		1			46120	02/13/23 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45929	02/09/23 17:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46067	02/12/23 15:03	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		5			45909	02/10/23 05:59	CH	EET MID

Client Sample ID: PH02A

Lab Sample ID: 890-4048-4

Date Collected: 02/06/23 15:30

Matrix: Solid

Date Received: 02/07/23 13:28

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 16:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46095	02/13/23 09:13	MNR	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

Client Sample ID: PH02A

Lab Sample ID: 890-4048-4

Date Collected: 02/06/23 15:30

Matrix: Solid

Date Received: 02/07/23 13:28

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			46120	02/13/23 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45929	02/09/23 17:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46067	02/12/23 13:14	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	45807	02/08/23 14:35	KS	EET MID
Soluble	Analysis	300.0		1			45909	02/10/23 06:03	CH	EET MID

Client Sample ID: PH02E

Lab Sample ID: 890-4048-5

Date Collected: 02/06/23 15:50

Matrix: Solid

Date Received: 02/07/23 13:28

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	46011	02/10/23 14:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46074	02/12/23 17:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46095	02/13/23 09:13	MNR	EET MID
Total/NA	Analysis	8015 NM		1			46120	02/13/23 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45929	02/09/23 17:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46067	02/12/23 15:26	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	45807	02/08/23 14:35	KS	EET MID
Soluble	Analysis	300.0		1			45909	02/10/23 06:08	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: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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
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- 10
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- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

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: OXY STATE F-1

Job ID: 890-4048-1
SDG: 32.50113,-103.22639

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4048-1	PH01A	Solid	02/06/23 10:55	02/07/23 13:28	1
890-4048-2	PH01C	Solid	02/06/23 11:05	02/07/23 13:28	3
890-4048-3	PH01E	Solid	02/06/23 11:35	02/07/23 13:28	5
890-4048-4	PH02A	Solid	02/06/23 15:30	02/07/23 13:28	1
890-4048-5	PH02E	Solid	02/06/23 15:50	02/07/23 13:28	5

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Environment Testing
Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1286
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 Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, jfalconata@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:	OKY STATE F-1	Turn Around	☒ Routine ☐ Rush
Project Number:	8250113-103-21639	Due Date:	
Project Location:	130005705	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Juliana Falconata		
PO #:			
SAMPLE RECEIPT	Temp Blank: ☒ Yes ☒ No	Wet Ice: ☒ Yes ☒ No	
Samples Received Intact:	☒ Yes ☒ No	Thermometer ID:	1144007
Cooler Custody Seals:	☒ Yes ☒ No	Correction Factor:	-0.03
Sample Custody Seals:	☒ Yes ☒ No	Temperature Reading:	2.0
Total Containers:		Corrected Temperature:	1.5
Parameters			
CHLORIDES (EPA: 300.0)			
TPH (8015)			
BTEX (8021)			
ANALYSIS REQUEST			
Preservative Codes			
None: NO			
Cool: Cool			
HCL: HC			
H2SO4: H2			
H3PO4: HP			
NaHSO4: NABIS			
Na2S2O3: NASO3			
Zn Acetate+NaOH: Zn			
NaOH+Ascorbic Acid: SAPC			
Sample Comments			



890-4048 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
PHD1A	S	02-06-23	1055	1'	G	1				
PHD1C	S	02-06-23	1105	3'	G	1				
PHD1E	S	02-06-23	1135	5'	G	1				
PHD1F	S	02-06-23	1140							
PHD2A	S	02-06-23	1530	1'	G	1				
PHD2E	S	02-06-23	1550	5'	G	1				

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 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
		8-1-23 1338			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4048-1

SDG Number: 32.50113,-103.22639

Login Number: 4048

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: 890-4048-1
SDG Number: 32.50113,-103.22639

Login Number: 4048

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/09/23 12:36 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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/13/2023 7:33:34 PM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER 03D205705

JOB NUMBER

890-4045-1

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 7:33:34 PM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-4045-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

Job ID: 890-4045-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4045-1****Receipt**

The sample was received on 2/7/2023 1:28 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-4045-1).

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: Surrogate recovery for the following sample was outside control limits: (LCSD 880-45929/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4048-A-4-B) and (890-4048-A-4-C MS). 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: SS04 (890-4045-1). 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 880-45929 and analytical batch 880-46067. 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

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45902 and analytical batch 880-45920 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: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

Client Sample ID: SS04

Lab Sample ID: 890-4045-1

Date Collected: 02/07/23 12:15

Matrix: Solid

Date Received: 02/07/23 13:28

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		02/10/23 14:34	02/12/23 23:31	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/10/23 14:34	02/12/23 23:31	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/10/23 14:34	02/12/23 23:31	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/10/23 14:34	02/12/23 23:31	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/10/23 14:34	02/12/23 23:31	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/10/23 14:34	02/12/23 23:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	02/10/23 14:34	02/12/23 23:31	1
1,4-Difluorobenzene (Surr)	102		70 - 130	02/10/23 14:34	02/12/23 23:31	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			02/13/23 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 11:21	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 17:28	02/12/23 20:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/09/23 17:28	02/12/23 20:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:28	02/12/23 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130	02/09/23 17:28	02/12/23 20:36	1
o-Terphenyl	65	S1-	70 - 130	02/09/23 17:28	02/12/23 20:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28.5		4.99	mg/Kg			02/09/23 18:25	1

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Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

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-A-1-B MS	Matrix Spike	109	99
890-4035-A-1-C MSD	Matrix Spike Duplicate	108	96
890-4045-1	SS04	121	102
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)
890-4045-1	SS04	69 S1-	65 S1-
890-4048-A-4-C MS	Matrix Spike	67 S1-	61 S1-
890-4048-A-4-D MSD	Matrix Spike Duplicate	80	74
LCS 880-45929/2-A	Lab Control Sample	129	108
LCSD 880-45929/3-A	Lab Control Sample Dup	138 S1+	124
MB 880-45929/1-A	Method Blank	75	74

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

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-A-1-B MS

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike

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

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

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

Lab Sample ID: 890-4035-A-1-B MS

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike

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-A-1-C MSD

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike Duplicate

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 880-45929/1-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45929

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 17:28	02/12/23 09:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 09:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 09:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130	02/09/23 17:28	02/12/23 09:44	1
o-Terphenyl	74		70 - 130	02/09/23 17:28	02/12/23 09:44	1

Lab Sample ID: LCS 880-45929/2-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45929

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	936.7		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	1000	847.8		mg/Kg		85	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

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

Lab Sample ID: LCS 880-45929/2-A
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45929

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	129		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: LCSD 880-45929/3-A
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45929

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1047		mg/Kg		105	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	959.5		mg/Kg		96	70 - 130	12	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	138	S1+	70 - 130
o-Terphenyl	124		70 - 130

Lab Sample ID: 890-4048-A-4-C MS
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45929

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	998	<49.9	U F1	mg/Kg		-2	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	<49.9	U F1	mg/Kg		-0.1	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	67	S1-	70 - 130
o-Terphenyl	61	S1-	70 - 130

Lab Sample ID: 890-4048-A-4-D MSD
Matrix: Solid
Analysis Batch: 46067

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45929

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	997	52.93	F1 F2	mg/Kg		0.8	70 - 130	69	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	997	<49.9	U F1	mg/Kg		-0.1	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	74		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45902/1-A

Matrix: Solid

Analysis Batch: 45920

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			02/09/23 17:42	1

Lab Sample ID: LCS 880-45902/2-A

Matrix: Solid

Analysis Batch: 45920

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	232.7		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-45902/3-A

Matrix: Solid

Analysis Batch: 45920

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	232.8		mg/Kg		93	90 - 110	0	20

Lab Sample ID: 890-4043-A-1-B MS

Matrix: Solid

Analysis Batch: 45920

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	<4.98	U F1	249	226.8	F1	mg/Kg		89	90 - 110

Lab Sample ID: 890-4043-A-1-C MSD

Matrix: Solid

Analysis Batch: 45920

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	<4.98	U F1	249	227.7		mg/Kg		90	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

GC VOA

Prep Batch: 46011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4045-1	SS04	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-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4035-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4045-1	SS04	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-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46011
890-4035-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46011

Analysis Batch: 46099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4045-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4045-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-45929/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45929/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4048-A-4-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4048-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4045-1	SS04	Total/NA	Solid	8015B NM	45929
MB 880-45929/1-A	Method Blank	Total/NA	Solid	8015B NM	45929
LCS 880-45929/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45929
LCSD 880-45929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45929
890-4048-A-4-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45929
890-4048-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45929

Analysis Batch: 46124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4045-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4045-1	SS04	Soluble	Solid	DI Leach	
MB 880-45902/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45902/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45902/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

HPLC/IC (Continued)

Leach Batch: 45902 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4043-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4043-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4045-1	SS04	Soluble	Solid	300.0	45902
MB 880-45902/1-A	Method Blank	Soluble	Solid	300.0	45902
LCS 880-45902/2-A	Lab Control Sample	Soluble	Solid	300.0	45902
LCSD 880-45902/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45902
890-4043-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45902
890-4043-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45902

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

Client Sample ID: SS04
Date Collected: 02/07/23 12:15
Date Received: 02/07/23 13:28

Lab Sample ID: 890-4045-1
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	46011	02/10/23 14:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46074	02/12/23 23:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46099	02/13/23 09:13	MNR	EET MID
Total/NA	Analysis	8015 NM		1			46124	02/13/23 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45929	02/09/23 17:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46067	02/12/23 20:36	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 18:25	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: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

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
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- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4045-1
SDG: 03D205705

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4045-1	SS04	Solid	02/07/23 12:15	02/07/23 13:28	0.2

- 1
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Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
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

Chain of Custody

Work Order No:

Page 1 of 1
www.xenco.com

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marrenfield St Suite 400	Address:	601 N Marrenfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, itacomata@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:	OXSTATE-F-1	Turn Around ☒ Routine ☐ Rush	Pres. Code	ANALYSIS REQUEST												Preservative Codes	
Project Number:	03D705705			None: NO	DI Water: H ₂ O												
Project Location:	6250113-103 22689	Due Date:		Cool: Cool	MeOH: Me												
Sampler's Name:	Juliana Falcomata	TAT starts the day received by the lab, if received by 4:30pm		HCL: HC	HNO ₃ : HN												
PO #:		Well Ice: ☒ Yes ☐ No		H ₂ SO ₄ : H ₂	NaOH: Na												
SAMPLE RECEIPT		Temp Blank: ☒ Yes ☐ No		H ₃ PO ₄ : HP													
Samples Received Intact:	☒ Yes ☐ No	Thermometer ID: 14-007		NaHSO ₄ : NABIS													
Cooler Custody Seals:	Yes ☐ No ☒ N/A	Correction Factor: -0.3		Na ₂ S ₂ O ₃ : NASO ₃													
Sample Custody Seals:	Yes ☐ No ☒ N/A	Temperature Reading: 22.8		Zn Acetate+NaOH: Zn													
Total Containers:		Corrected Temperature: 1.8		NaOH+Ascorbic Acid: SAPC													
Parameters				RIDES (EPA: 300.0)													
				015)													
				8021													
				 890-4045 Chain of Custody													

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 A Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
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 Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$55.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, 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
		2-7-23 1328			

Revised Date: 08/25/2020 Row: 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4045-1

SDG Number: 03D205705

Login Number: 4045

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: 890-4045-1

SDG Number: 03D205705

Login Number: 4045

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/09/23 12:36 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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/13/2023 7:34:06 PM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER 03D205705

JOB NUMBER

890-4046-1

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 7:34:06 PM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-4046-1
SDG: 03D205705

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	14
Lab Chronicle	16
Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
Receipt Checklists	21

1

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3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

Job ID: 890-4046-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4046-1****Receipt**

The sample was received on 2/7/2023 1:28 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 1.8°C

Receipt Exceptions

The following were received and analyzed from an unpreserved bulk soil jar: SS03 (890-4046-1).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-46016 and analytical batch 880-46059 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

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-45929/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4048-A-4-B) and (890-4048-A-4-C MS). 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: SS03 (890-4046-1). 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 880-45929 and analytical batch 880-46067. 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

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45902 and analytical batch 880-45920 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: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

Client Sample ID: SS03

Lab Sample ID: 890-4046-1

Date Collected: 02/07/23 12:10

Matrix: Solid

Date Received: 02/07/23 13:28

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		02/10/23 14:55	02/11/23 17:04	1
Toluene	<0.00200	U *	0.00200	mg/Kg		02/10/23 14:55	02/11/23 17:04	1
Ethylbenzene	<0.00200	U *	0.00200	mg/Kg		02/10/23 14:55	02/11/23 17:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/10/23 14:55	02/11/23 17:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 17:04	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/10/23 14:55	02/11/23 17:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	02/10/23 14:55	02/11/23 17:04	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/10/23 14:55	02/11/23 17:04	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 19:39	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			02/13/23 11:21	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		02/09/23 17:28	02/12/23 20:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 20:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 20:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	60	S1-	70 - 130	02/09/23 17:28	02/12/23 20:58	1
o-Terphenyl	56	S1-	70 - 130	02/09/23 17:28	02/12/23 20:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.8		4.95	mg/Kg			02/09/23 18:31	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

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)
820-7364-A-1-B MS	Matrix Spike	121	104
820-7364-A-1-C MSD	Matrix Spike Duplicate	115	106
890-4046-1	SS03	122	109
890-4047-A-1-C MS	Matrix Spike	113	112
890-4047-A-1-D MSD	Matrix Spike Duplicate	109	112
LCS 880-46016/1-A	Lab Control Sample	108	110
LCS 880-46019/1-A	Lab Control Sample	114	102
LCSD 880-46016/2-A	Lab Control Sample Dup	114	110
LCSD 880-46019/2-A	Lab Control Sample Dup	109	104
MB 880-46016/5-A	Method Blank	111	105
MB 880-46019/5-A	Method Blank	74	95
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)
890-4046-1	SS03	60 S1-	56 S1-
890-4048-A-4-C MS	Matrix Spike	67 S1-	61 S1-
890-4048-A-4-D MSD	Matrix Spike Duplicate	80	74
LCS 880-45929/2-A	Lab Control Sample	129	108
LCSD 880-45929/3-A	Lab Control Sample Dup	138 S1+	124
MB 880-45929/1-A	Method Blank	75	74
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46016/5-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46016

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 14:55	02/11/23 16:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	02/10/23 14:55	02/11/23 16:15	1
1,4-Difluorobenzene (Surr)	105		70 - 130	02/10/23 14:55	02/11/23 16:15	1

Lab Sample ID: LCS 880-46016/1-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07008		mg/Kg		70	70 - 130
Toluene	0.100	0.06866	*-	mg/Kg		69	70 - 130
Ethylbenzene	0.100	0.06746	*-	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	0.200	0.1444		mg/Kg		72	70 - 130
o-Xylene	0.100	0.07197		mg/Kg		72	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-46016/2-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07747		mg/Kg		77	70 - 130	10	35
Toluene	0.100	0.07237		mg/Kg		72	70 - 130	5	35
Ethylbenzene	0.100	0.07187		mg/Kg		72	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1528		mg/Kg		76	70 - 130	6	35
o-Xylene	0.100	0.07577		mg/Kg		76	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-4047-A-1-C MS

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0990	0.1079		mg/Kg		109	70 - 130
Toluene	<0.00201	U *-	0.0990	0.1062		mg/Kg		107	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

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

Lab Sample ID: 890-4047-A-1-C MS

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U *	0.0990	0.1065		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.198	0.2259		mg/Kg		114	70 - 130
o-Xylene	<0.00201	U	0.0990	0.1081		mg/Kg		109	70 - 130

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

Lab Sample ID: 890-4047-A-1-D MSD

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.1140		mg/Kg		114	70 - 130	6	35
Toluene	<0.00201	U *	0.0998	0.1074		mg/Kg		108	70 - 130	1	35
Ethylbenzene	<0.00201	U *	0.0998	0.1067		mg/Kg		107	70 - 130	0	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2247		mg/Kg		113	70 - 130	1	35
o-Xylene	<0.00201	U	0.0998	0.1069		mg/Kg		107	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: MB 880-46019/5-A

Matrix: Solid

Analysis Batch: 46073

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46019

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 15:02	02/12/23 14:31	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	02/10/23 15:02	02/12/23 14:31	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/10/23 15:02	02/12/23 14:31	1

Lab Sample ID: LCS 880-46019/1-A

Matrix: Solid

Analysis Batch: 46073

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1043		mg/Kg		104	70 - 130
Toluene	0.100	0.1031		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2306		mg/Kg		115	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

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

Lab Sample ID: LCS 880-46019/1-A

Matrix: Solid

Analysis Batch: 46073

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1142		mg/Kg		114	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 880-46019/2-A

Matrix: Solid

Analysis Batch: 46073

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46019

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1134		mg/Kg		113	70 - 130	8	35
Toluene	0.100	0.1048		mg/Kg		105	70 - 130	2	35
Ethylbenzene	0.100	0.1094		mg/Kg		109	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2311		mg/Kg		116	70 - 130	0	35
o-Xylene	0.100	0.1138		mg/Kg		114	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 820-7364-A-1-B MS

Matrix: Solid

Analysis Batch: 46073

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46019

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0996	0.09111		mg/Kg		91	70 - 130
Toluene	<0.00201	U	0.0996	0.09028		mg/Kg		91	70 - 130
Ethylbenzene	<0.00201	U	0.0996	0.09883		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2130		mg/Kg		106	70 - 130
o-Xylene	0.00207		0.0996	0.1063		mg/Kg		105	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 820-7364-A-1-C MSD

Matrix: Solid

Analysis Batch: 46073

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46019

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.1013		mg/Kg		102	70 - 130	11	35
Toluene	<0.00201	U	0.0996	0.1036		mg/Kg		104	70 - 130	14	35
Ethylbenzene	<0.00201	U	0.0996	0.1085		mg/Kg		108	70 - 130	9	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2331		mg/Kg		116	70 - 130	9	35
o-Xylene	0.00207		0.0996	0.1158		mg/Kg		114	70 - 130	9	35

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

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

Lab Sample ID: 820-7364-A-1-C MSD

Matrix: Solid

Analysis Batch: 46073

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46019

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-45929/1-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45929

	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		02/09/23 17:28	02/12/23 09:44	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 09:44	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:28	02/12/23 09:44	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil	Fac
1-Chlorooctane	75		70 - 130			02/09/23 17:28	02/12/23 09:44	1	
o-Terphenyl	74		70 - 130			02/09/23 17:28	02/12/23 09:44	1	

Lab Sample ID: LCS 880-45929/2-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45929

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	936.7		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	847.8		mg/Kg		85	70 - 130		
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	129		70 - 130						
o-Terphenyl	108		70 - 130						

Lab Sample ID: LCSD 880-45929/3-A

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45929

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1047		mg/Kg		105	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	959.5		mg/Kg		96	70 - 130	12	20
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	138	S1+	70 - 130						
o-Terphenyl	124		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

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

Lab Sample ID: 890-4048-A-4-C MS

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 45929

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	998	<49.9	U F1	mg/Kg		-2	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	<49.9	U F1	mg/Kg		-0.1	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	67	S1-	70 - 130						
o-Terphenyl	61	S1-	70 - 130						

Lab Sample ID: 890-4048-A-4-D MSD

Matrix: Solid

Analysis Batch: 46067

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45929

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	997	52.93	F1 F2	mg/Kg		0.8	70 - 130	69	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	997	<49.9	U F1	mg/Kg		-0.1	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	80		70 - 130								
o-Terphenyl	74		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45902/1-A

Matrix: Solid

Analysis Batch: 45920

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			02/09/23 17:42	1

Lab Sample ID: LCS 880-45902/2-A

Matrix: Solid

Analysis Batch: 45920

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	232.7		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-45902/3-A

Matrix: Solid

Analysis Batch: 45920

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	232.8		mg/Kg		93	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4043-A-1-B MS

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 45920

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<4.98	U F1	249	226.8	F1	mg/Kg		89	90 - 110

Lab Sample ID: 890-4043-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 45920

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<4.98	U F1	249	227.7		mg/Kg		90	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

GC VOA

Prep Batch: 46016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4046-1	SS03	Total/NA	Solid	5035	
MB 880-46016/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46016/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46016/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4047-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-4047-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 46019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46019/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46019/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46019/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-7364-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
820-7364-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4046-1	SS03	Total/NA	Solid	8021B	46016
MB 880-46016/5-A	Method Blank	Total/NA	Solid	8021B	46016
LCS 880-46016/1-A	Lab Control Sample	Total/NA	Solid	8021B	46016
LCSD 880-46016/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46016
890-4047-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	46016
890-4047-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46016

Analysis Batch: 46073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46019/5-A	Method Blank	Total/NA	Solid	8021B	46019
LCS 880-46019/1-A	Lab Control Sample	Total/NA	Solid	8021B	46019
LCSD 880-46019/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46019
820-7364-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46019
820-7364-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46019

Analysis Batch: 46242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4046-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4046-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-45929/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45929/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4048-A-4-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4048-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4046-1	SS03	Total/NA	Solid	8015B NM	45929
MB 880-45929/1-A	Method Blank	Total/NA	Solid	8015B NM	45929

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

GC Semi VOA (Continued)

Analysis Batch: 46067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-45929/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45929
LCSD 880-45929/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45929
890-4048-A-4-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45929
890-4048-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45929

Analysis Batch: 46125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4046-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4046-1	SS03	Soluble	Solid	DI Leach	
MB 880-45902/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45902/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45902/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4043-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4043-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4046-1	SS03	Soluble	Solid	300.0	45902
MB 880-45902/1-A	Method Blank	Soluble	Solid	300.0	45902
LCS 880-45902/2-A	Lab Control Sample	Soluble	Solid	300.0	45902
LCSD 880-45902/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45902
890-4043-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45902
890-4043-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45902

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

Client Sample ID: SS03
Date Collected: 02/07/23 12:10
Date Received: 02/07/23 13:28

Lab Sample ID: 890-4046-1
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	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/11/23 17:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46242	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46125	02/13/23 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45929	02/09/23 17:28	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46067	02/12/23 20:58	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 18:31	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: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4046-1
SDG: 03D205705

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4046-1	SS03	Solid	02/07/23 12:10	02/07/23 13:28	0.2

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



Environment Testing
Xenoco

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
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

Chain of Custody

Work Order No:

Page _____ on _____
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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, itaicomata@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:		ON STATE F-1		Turn Around		Pres. Code		ANALYSIS REQUEST										Preservative Codes							
Project Number:		68D9057105		☒ Routine ☐ Rush														None: NO		DI Water: H ₂ O					
Project Location:		325413-118.22189		Due Date:														Cool: Cool		MeOH: Me					
Sampler's Name:		Juliana Falcomata		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC		HNO ₃ : HN					
PO #:				Wet Ice:		☒ Yes ☐ No												H ₂ SO ₄ : H ₂		NaOH: Na					
SAMPLE RECEIPT		Temp Blank:		☒ Yes ☐ No		Thermometer ID:		TW007												H ₃ PO ₄ : HP					
Samples Received Intact:		☒ Yes ☐ No		Correction Factor:		-0.3												NaHSO ₄ : NABIS							
Cooler Custody Seals:		Yes		No		N/A												Na ₂ O ₃ : NASO ₃							
Sample Custody Seals:		Yes		No		N/A		Temperature Reading:		2.0												Zn Acetate+NaOH: Zn			
Total Containers:				Corrected Temperature:		1.8												NaOH+Ascorbic Acid: SACP							

[illegible]

Circle Method(s) and Metal(s) to be analyzed	200.8 / 6020:	200.7 / 6010
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 Zr		
TCPLP/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 Xeno. Its affiliates and subcontractors. It assigns trademark terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or exposures incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$65.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, 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
		07.23.13			

Revised Date: 08/25/2020 Rev: 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4046-1

SDG Number: 03D205705

Login Number: 4046

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: 890-4046-1

SDG Number: 03D205705

Login Number: 4046

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/09/23 12:36 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
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- 9
- 10
- 11
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- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/16/2023 6:24:58 PM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER Lea County NM

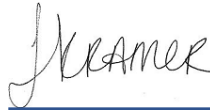
JOB NUMBER

890-3796-1

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
1/16/2023 6:24:58 PM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-3796-1
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	9
QC Sample Results	10
QC Association Summary	14
Lab Chronicle	16
Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
Receipt Checklists	21

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

Definitions/Glossary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
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
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: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

Job ID: 890-3796-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-3796-1

Receipt

The samples were received on 1/10/2023 9:05 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 2.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SW01 (890-3796-1), SW02 (890-3796-2) and SW03 (890-3796-3).

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: SW01 (890-3796-1), SW02 (890-3796-2), (MB 880-43793/1-A) and (880-23434-A-41-F). 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: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

Client Sample ID: SW01

Lab Sample ID: 890-3796-1

Date Collected: 01/06/23 13:25

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 0 - 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 10:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 10:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 10:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 10:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 10:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 10:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	01/11/23 12:47	01/14/23 10:26	1
1,4-Difluorobenzene (Surr)	94		70 - 130	01/11/23 12:47	01/14/23 10:26	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 04:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 04:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 04:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	01/12/23 09:26	01/14/23 04:16	1
o-Terphenyl	134	S1+	70 - 130	01/12/23 09:26	01/14/23 04:16	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	217		5.02	mg/Kg			01/13/23 20:01	1

Client Sample ID: SW02

Lab Sample ID: 890-3796-2

Date Collected: 01/06/23 13:30

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 0 - 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 10:54	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 10:54	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 10:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 10:54	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 10:54	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 10:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	01/11/23 12:47	01/14/23 10:54	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

Client Sample ID: SW02

Lab Sample ID: 890-3796-2

Date Collected: 01/06/23 13:30

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 0 - 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130	01/11/23 12:47	01/14/23 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	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 04:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 04:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 04:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			01/12/23 09:26	01/14/23 04:38	1
o-Terphenyl	135	S1+	70 - 130			01/12/23 09:26	01/14/23 04:38	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	317		5.01	mg/Kg			01/13/23 20:06	1

Client Sample ID: SW03

Lab Sample ID: 890-3796-3

Date Collected: 01/06/23 13:35

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 0 - 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 11:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 11:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 11:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/11/23 12:47	01/14/23 11:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 11:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/11/23 12:47	01/14/23 11:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/11/23 12:47	01/14/23 11:21	1
1,4-Difluorobenzene (Surr)	98		70 - 130	01/11/23 12:47	01/14/23 11:21	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:45	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

Client Sample ID: SW03
Date Collected: 01/06/23 13:35
Date Received: 01/10/23 09:05
Sample Depth: 0 - 3

Lab Sample ID: 890-3796-3
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 05:00	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 05:00	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/14/23 05:00	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	108		70 - 130			01/12/23 09:26	01/14/23 05:00	1	
o-Terphenyl	130		70 - 130			01/12/23 09:26	01/14/23 05:00	1	

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	161		4.98	mg/Kg			01/13/23 20:12	1	

Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3791-A-1-A MS	Matrix Spike	116	95
890-3791-A-1-B MSD	Matrix Spike Duplicate	111	96
890-3796-1	SW01	109	94
890-3796-2	SW02	120	97
890-3796-3	SW03	108	98
LCS 880-43735/1-A	Lab Control Sample	105	102
LCSD 880-43735/2-A	Lab Control Sample Dup	106	105
MB 880-43732/5-A	Method Blank	71	89
MB 880-43735/5-A	Method Blank	75	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23434-A-41-G MS	Matrix Spike	90	96
880-23434-A-41-H MSD	Matrix Spike Duplicate	78	86
890-3796-1	SW01	109	134 S1+
890-3796-2	SW02	110	135 S1+
890-3796-3	SW03	108	130
LCS 880-43793/2-A	Lab Control Sample	107	128
LCSD 880-43793/3-A	Lab Control Sample Dup	105	122
MB 880-43793/1-A	Method Blank	142 S1+	174 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43732

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/11/23 12:26	01/13/23 17:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/11/23 12:26	01/13/23 17:05	1

Lab Sample ID: MB 880-43735/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43735

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/11/23 12:47	01/14/23 06:48	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 06:48	1

Lab Sample ID: LCS 880-43735/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1102		mg/Kg		110	70 - 130
Toluene	0.100	0.09645		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09590		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09743		mg/Kg		97	70 - 130

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1207		mg/Kg		121	70 - 130	9	35

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	9	35
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2215		mg/Kg		111	70 - 130	11	35
o-Xylene	0.100	0.1083		mg/Kg		108	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3791-A-1-A MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1038		mg/Kg		103	70 - 130
Toluene	<0.00201	U	0.101	0.09117		mg/Kg		90	70 - 130
Ethylbenzene	<0.00201	U	0.101	0.08880		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1824		mg/Kg		90	70 - 130
o-Xylene	<0.00201	U	0.101	0.08945		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3791-A-1-B MSD

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43735

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	0.08711		mg/Kg		88	70 - 130	17	35
Toluene	<0.00201	U	0.0990	0.07304		mg/Kg		74	70 - 130	22	35
Ethylbenzene	<0.00201	U	0.0990	0.07264		mg/Kg		73	70 - 130	20	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1486		mg/Kg		75	70 - 130	20	35
o-Xylene	<0.00201	U	0.0990	0.07570		mg/Kg		76	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-43793/1-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43793

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		01/12/23 09:26	01/13/23 19:51	1

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43793/1-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43793

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		01/12/23 09:26	01/13/23 19:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/13/23 19:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130			01/12/23 09:26	01/13/23 19:51	1
o-Terphenyl	174	S1+	70 - 130			01/12/23 09:26	01/13/23 19:51	1

Lab Sample ID: LCS 880-43793/2-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	874.1		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	940.7		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	107		70 - 130				
o-Terphenyl	128		70 - 130				

Lab Sample ID: LCSD 880-43793/3-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43793

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	901.4		mg/Kg		90	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	960.9		mg/Kg		96	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	105		70 - 130						
o-Terphenyl	122		70 - 130						

Lab Sample ID: 880-23434-A-41-G MS

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43793

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	912.3		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1009		mg/Kg		97	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	90		70 - 130						
o-Terphenyl	96		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

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

Lab Sample ID: 880-23434-A-41-H MSD

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43793

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	997	1003		mg/Kg		98	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	894.4		mg/Kg		85	70 - 130	12	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	78		70 - 130								
o-Terphenyl	86		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43788/1-A

Matrix: Solid

Analysis Batch: 43922

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			01/13/23 17:28	1

Lab Sample ID: LCS 880-43788/2-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.1		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-43788/3-A

Matrix: Solid

Analysis Batch: 43922

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	252.7		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3791-A-1-D MS

Matrix: Solid

Analysis Batch: 43922

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	2210		1240	3493		mg/Kg		104	90 - 110

Lab Sample ID: 890-3791-A-1-E MSD

Matrix: Solid

Analysis Batch: 43922

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	2210		1240	3475		mg/Kg		102	90 - 110	1	20

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 43735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3796-1	SW01	Total/NA	Solid	5035	
890-3796-2	SW02	Total/NA	Solid	5035	
890-3796-3	SW03	Total/NA	Solid	5035	
MB 880-43735/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3796-1	SW01	Total/NA	Solid	8021B	43735
890-3796-2	SW02	Total/NA	Solid	8021B	43735
890-3796-3	SW03	Total/NA	Solid	8021B	43735
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
MB 880-43735/5-A	Method Blank	Total/NA	Solid	8021B	43735
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	8021B	43735
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43735
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43735
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43735

Analysis Batch: 44099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3796-1	SW01	Total/NA	Solid	Total BTEX	
890-3796-2	SW02	Total/NA	Solid	Total BTEX	
890-3796-3	SW03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 43793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3796-1	SW01	Total/NA	Solid	8015NM Prep	
890-3796-2	SW02	Total/NA	Solid	8015NM Prep	
890-3796-3	SW03	Total/NA	Solid	8015NM Prep	
MB 880-43793/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43793/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43793/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23434-A-41-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23434-A-41-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3796-1	SW01	Total/NA	Solid	8015B NM	43793
890-3796-2	SW02	Total/NA	Solid	8015B NM	43793
890-3796-3	SW03	Total/NA	Solid	8015B NM	43793
MB 880-43793/1-A	Method Blank	Total/NA	Solid	8015B NM	43793
LCS 880-43793/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43793

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 43852 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-43793/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43793
880-23434-A-41-G MS	Matrix Spike	Total/NA	Solid	8015B NM	43793
880-23434-A-41-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43793

Analysis Batch: 44051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3796-1	SW01	Total/NA	Solid	8015 NM	
890-3796-2	SW02	Total/NA	Solid	8015 NM	
890-3796-3	SW03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3796-1	SW01	Soluble	Solid	DI Leach	
890-3796-2	SW02	Soluble	Solid	DI Leach	
890-3796-3	SW03	Soluble	Solid	DI Leach	
MB 880-43788/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3796-1	SW01	Soluble	Solid	300.0	43788
890-3796-2	SW02	Soluble	Solid	300.0	43788
890-3796-3	SW03	Soluble	Solid	300.0	43788
MB 880-43788/1-A	Method Blank	Soluble	Solid	300.0	43788
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	300.0	43788
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43788
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	43788
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43788

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Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

Client Sample ID: SW01

Lab Sample ID: 890-3796-1

Date Collected: 01/06/23 13:25

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 10:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44099	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44051	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43793	01/12/23 09:26	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/14/23 04:16	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 20:01	CH	EET MID

Client Sample ID: SW02

Lab Sample ID: 890-3796-2

Date Collected: 01/06/23 13:30

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 10:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44099	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44051	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43793	01/12/23 09:26	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/14/23 04:38	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 20:06	CH	EET MID

Client Sample ID: SW03

Lab Sample ID: 890-3796-3

Date Collected: 01/06/23 13:35

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 11:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44099	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44051	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43793	01/12/23 09:26	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/14/23 05:00	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 20:12	CH	EET MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
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: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

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

Protocol References:

- ASTM = ASTM International
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3796-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3796-1	SW01	Solid	01/06/23 13:25	01/10/23 09:05	0 - 3
890-3796-2	SW02	Solid	01/06/23 13:30	01/10/23 09:05	0 - 3
890-3796-3	SW03	Solid	01/06/23 13:35	01/10/23 09:05	0 - 3

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



Environment Testing
Xenco

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

Work Order No.:

www.xenco.com

Page

1 of 2

Chain of Custody

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marlenfeld St Suite 400	Address:	601 N Marlenfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com

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

Project Name:	Oxy State F-1	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:	03D2057051	Due Date:			
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Conner Shore				
PO #:					
SAMPLE RECEIPT	Temp Blank: ☒ Yes ☒ No	Well Ice: ☒ Yes ☒ No			
Samples Received In tact:	Yes ☒ No ☒	Thermometer ID:	11111111		
Cooler Custody Seals:	Yes ☒ No ☒	Correction Factor:	-0.2		
Sample Custody Seals:	Yes ☒ No ☒	Temperature Reading:	2.8		
Total Containers:		Corrected Temperature:	2.14		



890-3796 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	TPH (8015)	Chlorides	BTEX (8021)	ANALYSIS REQUEST	Preservative Codes
SW01	S	1.6.23	1325	0-3'	C	1	X	X	X		None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ SO ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC
SW02	S	1.6.23	1330	0-3'	C	1	X	X	X		
SW03	S	1.6.23	1335	0-3'	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 Mo Ni K Se Ag SiO₂ 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
		1.0.23 905			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3796-1

SDG Number: Lea County NM

Login Number: 3796

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: 890-3796-1

SDG Number: Lea County NM

Login Number: 3796

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 01/11/23 11:43 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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- 11
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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/16/2023 6:24:39 PM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER Lea County NM

JOB NUMBER

890-3795-1

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
1/16/2023 6:24:39 PM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-3795-1
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	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	20

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
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
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: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

Job ID: 890-3795-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-3795-1**

Receipt

The sample was received on 1/10/2023 9:05 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 2.6°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: FS31 (890-3795-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS31 (890-3795-1), (MB 880-43793/1-A) and (880-23434-A-41-F). 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: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

Client Sample ID: FS31

Lab Sample ID: 890-3795-1

Date Collected: 01/05/23 10:35

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/11/23 12:47	01/14/23 09:59	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/11/23 12:47	01/14/23 09:59	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/11/23 12:47	01/14/23 09:59	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/11/23 12:47	01/14/23 09:59	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/11/23 12:47	01/14/23 09:59	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/11/23 12:47	01/14/23 09:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	01/11/23 12:47	01/14/23 09:59	1
1,4-Difluorobenzene (Surr)	93		70 - 130	01/11/23 12:47	01/14/23 09:59	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			01/16/23 16:58	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/12/23 09:26	01/14/23 03:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 09:26	01/14/23 03:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 09:26	01/14/23 03:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	01/12/23 09:26	01/14/23 03:54	1
o-Terphenyl	134	S1+	70 - 130	01/12/23 09:26	01/14/23 03:54	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	553		4.97	mg/Kg			01/13/23 19:55	1

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Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3791-A-1-A MS	Matrix Spike	116	95
890-3791-A-1-B MSD	Matrix Spike Duplicate	111	96
890-3795-1	FS31	104	93
LCS 880-43735/1-A	Lab Control Sample	105	102
LCSD 880-43735/2-A	Lab Control Sample Dup	106	105
MB 880-43732/5-A	Method Blank	71	89
MB 880-43735/5-A	Method Blank	75	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23434-A-41-G MS	Matrix Spike	90	96
880-23434-A-41-H MSD	Matrix Spike Duplicate	78	86
890-3795-1	FS31	111	134 S1+
LCS 880-43793/2-A	Lab Control Sample	107	128
LCSD 880-43793/3-A	Lab Control Sample Dup	105	122
MB 880-43793/1-A	Method Blank	142 S1+	174 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43732

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/11/23 12:26	01/13/23 17:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/11/23 12:26	01/13/23 17:05	1

Lab Sample ID: MB 880-43735/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43735

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/11/23 12:47	01/14/23 06:48	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 06:48	1

Lab Sample ID: LCS 880-43735/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1102		mg/Kg		110	70 - 130
Toluene	0.100	0.09645		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09590		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09743		mg/Kg		97	70 - 130

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1207		mg/Kg		121	70 - 130	9	35

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	9	35
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2215		mg/Kg		111	70 - 130	11	35
o-Xylene	0.100	0.1083		mg/Kg		108	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3791-A-1-A MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1038		mg/Kg		103	70 - 130
Toluene	<0.00201	U	0.101	0.09117		mg/Kg		90	70 - 130
Ethylbenzene	<0.00201	U	0.101	0.08880		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1824		mg/Kg		90	70 - 130
o-Xylene	<0.00201	U	0.101	0.08945		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3791-A-1-B MSD

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43735

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	0.08711		mg/Kg		88	70 - 130	17	35
Toluene	<0.00201	U	0.0990	0.07304		mg/Kg		74	70 - 130	22	35
Ethylbenzene	<0.00201	U	0.0990	0.07264		mg/Kg		73	70 - 130	20	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1486		mg/Kg		75	70 - 130	20	35
o-Xylene	<0.00201	U	0.0990	0.07570		mg/Kg		76	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-43793/1-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43793

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		01/12/23 09:26	01/13/23 19:51	1

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43793/1-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43793

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		01/12/23 09:26	01/13/23 19:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:26	01/13/23 19:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130			01/12/23 09:26	01/13/23 19:51	1
o-Terphenyl	174	S1+	70 - 130			01/12/23 09:26	01/13/23 19:51	1

Lab Sample ID: LCS 880-43793/2-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	874.1		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	940.7		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	107		70 - 130				
o-Terphenyl	128		70 - 130				

Lab Sample ID: LCSD 880-43793/3-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43793

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	901.4		mg/Kg		90	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	960.9		mg/Kg		96	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	105		70 - 130						
o-Terphenyl	122		70 - 130						

Lab Sample ID: 880-23434-A-41-G MS

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43793

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	912.3		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1009		mg/Kg		97	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	90		70 - 130						
o-Terphenyl	96		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

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

Lab Sample ID: 880-23434-A-41-H MSD

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43793

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	997	1003		mg/Kg		98	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	894.4		mg/Kg		85	70 - 130	12	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	78		70 - 130								
o-Terphenyl	86		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43788/1-A

Matrix: Solid

Analysis Batch: 43922

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			01/13/23 17:28	1

Lab Sample ID: LCS 880-43788/2-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.1		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-43788/3-A

Matrix: Solid

Analysis Batch: 43922

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	252.7		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3791-A-1-D MS

Matrix: Solid

Analysis Batch: 43922

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	2210		1240	3493		mg/Kg		104	90 - 110

Lab Sample ID: 890-3791-A-1-E MSD

Matrix: Solid

Analysis Batch: 43922

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	2210		1240	3475		mg/Kg		102	90 - 110	1	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 43735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3795-1	FS31	Total/NA	Solid	5035	
MB 880-43735/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3795-1	FS31	Total/NA	Solid	8021B	43735
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
MB 880-43735/5-A	Method Blank	Total/NA	Solid	8021B	43735
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	8021B	43735
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43735
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43735
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43735

Analysis Batch: 44098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3795-1	FS31	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 43793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3795-1	FS31	Total/NA	Solid	8015NM Prep	
MB 880-43793/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43793/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43793/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23434-A-41-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23434-A-41-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3795-1	FS31	Total/NA	Solid	8015B NM	43793
MB 880-43793/1-A	Method Blank	Total/NA	Solid	8015B NM	43793
LCS 880-43793/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43793
LCSD 880-43793/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43793
880-23434-A-41-G MS	Matrix Spike	Total/NA	Solid	8015B NM	43793
880-23434-A-41-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43793

Analysis Batch: 44050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3795-1	FS31	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 43788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3795-1	FS31	Soluble	Solid	DI Leach	
MB 880-43788/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3795-1	FS31	Soluble	Solid	300.0	43788
MB 880-43788/1-A	Method Blank	Soluble	Solid	300.0	43788
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	300.0	43788
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43788
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	43788
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43788

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

Client Sample ID: FS31

Lab Sample ID: 890-3795-1

Date Collected: 01/05/23 10:35

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 09:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44098	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44050	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43793	01/12/23 09:26	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/14/23 03:54	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 19:55	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: OXY STATE F-1

Job ID: 890-3795-1
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
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Method Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3795-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3795-1	FS31	Solid	01/05/23 10:35	01/10/23 09:05	1.5

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Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marlenfeld St Suite 400	Address:	601 N Marlenfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com

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

Project Name:	Oxy State F-1	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:	03D2057051	Due Date:			
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Conner Shore				
PO #:					
SAMPLE RECEIPT	Temp Blank: ☒ Yes ☒ No	Wet Ice: ☒ Yes ☒ No			
Samples Received Intact:	Yes ☒ No ☒	Thermometer ID: 710007			
Cooler Custody Seals:	Yes ☒ No ☒	Correction Factor: -0.3			
Sample Custody Seals:	Yes ☒ No ☒	Temperature Reading: 2.8			
Total Containers:		Corrected Temperature: 2.8			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	TPH (8015)	Chlorides	BTEX (8021)	ANALYSIS REQUEST	Preservative Codes	Sample Comments
FS31	S	1.5.23	1035	1.5'	C	1	X	X	X		None: NO Cool: Cool HCL: HC H2SO4: H2 H3PO4: HP NaHSO4: NABIS Na2S2O3: NaSO3 Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC	
												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 SiO2 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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		1.10.23 905			

Eurofins Carlsbad

1089 N Canal St.
Carlsbad NM 86220
Phone. 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



eurofins

Environmental Testing

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3795-1

SDG Number: Lea County NM

Login Number: 3795

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: 890-3795-1

SDG Number: Lea County NM

Login Number: 3795

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 01/11/23 12:47 PM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 3/1/2023 2:39:59 PM Revision 1

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER Lea County NM

JOB NUMBER

890-3797-1

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
3/1/2023 2:39:59 PM
Revision 1

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-3797-1
SDG: Lea County NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	31
QC Sample Results	33
QC Association Summary	43
Lab Chronicle	51
Certification Summary	61
Method Summary	62
Sample Summary	63
Chain of Custody	64
Receipt Checklists	67

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

Definitions/Glossary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Job ID: 890-3797-1**Laboratory: Eurofins Carlsbad****Narrative**

Job Narrative
890-3797-1

REVISION

The report being provided is a revision of the original report sent on 1/17/2023. The report (revision 1) is being revised due to Per client email, requesting sample depth edits.

Report revision history

Receipt

The samples were received on 1/10/2023 9:05 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 2.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS13 (890-3797-1), FS14 (890-3797-2), FS16 (890-3797-3), FS17 (890-3797-4), FS18 (890-3797-5), FS19 (890-3797-6), FS21 (890-3797-7), FS22 (890-3797-8), FS24 (890-3797-9), FS25 (890-3797-10), FS26 (890-3797-11), FS27 (890-3797-12), FS28 (890-3797-13), FS29 (890-3797-14), FS30 (890-3797-15), FS32 (890-3797-16), FS33 (890-3797-17), FS34 (890-3797-18), FS35 (890-3797-19), FS36 (890-3797-20), FS37 (890-3797-21), FS38 (890-3797-22), FS39 (890-3797-23), FS40 (890-3797-24), FS41 (890-3797-25), FS42 (890-3797-26), FS43 (890-3797-27), FS44 (890-3797-28), FS45 (890-3797-29) and FS46 (890-3797-30).

GC VOA

Method 8021B: The laboratory control sample (LCS) for preparation batch 880-43913 and analytical batch 880-43959 recovered outside control limits for the following analytes: o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS36 (890-3797-20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-43736 and analytical batch 880-43878 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

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS36 (890-3797-20) and (MB 880-43794/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-43803/1-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

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.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-43789 and 880-43789 and analytical batch 880-43929 were outside control limits. Sample matrix interference and/or non-homogeneity are

Case Narrative

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Job ID: 890-3797-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

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.

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS13

Lab Sample ID: 890-3797-1

Date Collected: 01/06/23 10:00

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *- *1	0.00202	mg/Kg	-	01/11/23 12:53	01/14/23 21:02	1
Toluene	<0.00202	U *- *1	0.00202	mg/Kg	-	01/11/23 12:53	01/14/23 21:02	1
Ethylbenzene	<0.00202	U *- *1	0.00202	mg/Kg	-	01/11/23 12:53	01/14/23 21:02	1
m-Xylene & p-Xylene	<0.00403	U *1	0.00403	mg/Kg	-	01/11/23 12:53	01/14/23 21:02	1
o-Xylene	<0.00202	U *1	0.00202	mg/Kg	-	01/11/23 12:53	01/14/23 21:02	1
Xylenes, Total	<0.00403	U *1	0.00403	mg/Kg	-	01/11/23 12:53	01/14/23 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	01/11/23 12:53	01/14/23 21:02	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/11/23 12:53	01/14/23 21:02	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	-		01/16/23 16:58	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	-		01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg	-	01/12/23 09:29	01/13/23 11:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg	-	01/12/23 09:29	01/13/23 11:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	-	01/12/23 09:29	01/13/23 11:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	01/12/23 09:29	01/13/23 11:01	1
o-Terphenyl	102		70 - 130	01/12/23 09:29	01/13/23 11:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	265	F1	5.00	mg/Kg	-		01/14/23 03:06	1

Client Sample ID: FS14

Lab Sample ID: 890-3797-2

Date Collected: 01/06/23 10:05

Matrix: Solid

Date Received: 01/10/23 09:05

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 *- *1	0.00200	mg/Kg	-	01/11/23 12:53	01/14/23 21:28	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg	-	01/11/23 12:53	01/14/23 21:28	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg	-	01/11/23 12:53	01/14/23 21:28	1
m-Xylene & p-Xylene	<0.00399	U *1	0.00399	mg/Kg	-	01/11/23 12:53	01/14/23 21:28	1
o-Xylene	<0.00200	U *1	0.00200	mg/Kg	-	01/11/23 12:53	01/14/23 21:28	1
Xylenes, Total	<0.00399	U *1	0.00399	mg/Kg	-	01/11/23 12:53	01/14/23 21:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/11/23 12:53	01/14/23 21:28	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS14

Lab Sample ID: 890-3797-2

Date Collected: 01/06/23 10:05

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	01/11/23 12:53	01/14/23 21:28	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 12:07	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 12:07	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 12:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			01/12/23 09:29	01/13/23 12:07	1
o-Terphenyl	123		70 - 130			01/12/23 09:29	01/13/23 12:07	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	278		5.04	mg/Kg			01/14/23 03:25	1

Client Sample ID: FS16

Lab Sample ID: 890-3797-3

Date Collected: 01/06/23 10:10

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 21:54	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 21:54	1
Ethylbenzene	<0.00199	U *- *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 21:54	1
m-Xylene & p-Xylene	<0.00398	U *1	0.00398	mg/Kg		01/11/23 12:53	01/14/23 21:54	1
o-Xylene	<0.00199	U *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 21:54	1
Xylenes, Total	<0.00398	U *1	0.00398	mg/Kg		01/11/23 12:53	01/14/23 21:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	01/11/23 12:53	01/14/23 21:54	1
1,4-Difluorobenzene (Surr)	95		70 - 130	01/11/23 12:53	01/14/23 21:54	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	mg/Kg			01/16/23 16:58	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			01/16/23 16:45	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS16

Lab Sample ID: 890-3797-3

Date Collected: 01/06/23 10:10

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/12/23 09:29	01/13/23 12:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 12:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 12:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			01/12/23 09:29	01/13/23 12:29	1
o-Terphenyl	111		70 - 130			01/12/23 09:29	01/13/23 12:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	285		5.03	mg/Kg			01/14/23 03:31	1

Client Sample ID: FS17

Lab Sample ID: 890-3797-4

Date Collected: 01/06/23 10:15

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U * - *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 22:21	1
Toluene	<0.00199	U * - *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 22:21	1
Ethylbenzene	<0.00199	U * - *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 22:21	1
m-Xylene & p-Xylene	<0.00398	U *1	0.00398	mg/Kg		01/11/23 12:53	01/14/23 22:21	1
o-Xylene	<0.00199	U *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 22:21	1
Xylenes, Total	<0.00398	U *1	0.00398	mg/Kg		01/11/23 12:53	01/14/23 22:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			01/11/23 12:53	01/14/23 22:21	1
1,4-Difluorobenzene (Surr)	92		70 - 130			01/11/23 12:53	01/14/23 22:21	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 12:51	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 12:51	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 12:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			01/12/23 09:29	01/13/23 12:51	1
o-Terphenyl	116		70 - 130			01/12/23 09:29	01/13/23 12:51	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS17

Lab Sample ID: 890-3797-4

Date Collected: 01/06/23 10:15

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	149		5.05	mg/Kg			01/14/23 03:37	1

Client Sample ID: FS18

Lab Sample ID: 890-3797-5

Date Collected: 01/06/23 10:20

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *- *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 22:47	1
Toluene	<0.00199	U *- *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 22:47	1
Ethylbenzene	<0.00199	U *- *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 22:47	1
m-Xylene & p-Xylene	<0.00398	U *1	0.00398	mg/Kg		01/11/23 12:53	01/14/23 22:47	1
o-Xylene	<0.00199	U *1	0.00199	mg/Kg		01/11/23 12:53	01/14/23 22:47	1
Xylenes, Total	<0.00398	U *1	0.00398	mg/Kg		01/11/23 12:53	01/14/23 22:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			01/11/23 12:53	01/14/23 22:47	1
1,4-Difluorobenzene (Surr)	95		70 - 130			01/11/23 12:53	01/14/23 22:47	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			01/16/23 16:58	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 13:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 13:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 13:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			01/12/23 09:29	01/13/23 13:13	1
o-Terphenyl	120		70 - 130			01/12/23 09:29	01/13/23 13:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	363		4.95	mg/Kg			01/14/23 03:43	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS19

Lab Sample ID: 890-3797-6

Date Collected: 01/06/23 10:25

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *- *1	0.00198	mg/Kg		01/11/23 12:53	01/14/23 23:14	1
Toluene	<0.00198	U *- *1	0.00198	mg/Kg		01/11/23 12:53	01/14/23 23:14	1
Ethylbenzene	<0.00198	U *- *1	0.00198	mg/Kg		01/11/23 12:53	01/14/23 23:14	1
m-Xylene & p-Xylene	<0.00396	U *1	0.00396	mg/Kg		01/11/23 12:53	01/14/23 23:14	1
o-Xylene	<0.00198	U *1	0.00198	mg/Kg		01/11/23 12:53	01/14/23 23:14	1
Xylenes, Total	<0.00396	U *1	0.00396	mg/Kg		01/11/23 12:53	01/14/23 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	01/11/23 12:53	01/14/23 23:14	1
1,4-Difluorobenzene (Surr)	97		70 - 130	01/11/23 12:53	01/14/23 23:14	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 13:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 13:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	01/12/23 09:29	01/13/23 13:35	1
o-Terphenyl	123		70 - 130	01/12/23 09:29	01/13/23 13:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	178		5.03	mg/Kg			01/14/23 04:02	1

Client Sample ID: FS21

Lab Sample ID: 890-3797-7

Date Collected: 01/06/23 10:30

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		01/11/23 12:53	01/14/23 23:40	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		01/11/23 12:53	01/14/23 23:40	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		01/11/23 12:53	01/14/23 23:40	1
m-Xylene & p-Xylene	<0.00401	U *1	0.00401	mg/Kg		01/11/23 12:53	01/14/23 23:40	1
o-Xylene	<0.00200	U *1	0.00200	mg/Kg		01/11/23 12:53	01/14/23 23:40	1
Xylenes, Total	<0.00401	U *1	0.00401	mg/Kg		01/11/23 12:53	01/14/23 23:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	01/11/23 12:53	01/14/23 23:40	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS21

Lab Sample ID: 890-3797-7

Date Collected: 01/06/23 10:30

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	01/11/23 12:53	01/14/23 23:40	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 13:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 13:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 13:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			01/12/23 09:29	01/13/23 13:57	1
o-Terphenyl	111		70 - 130			01/12/23 09:29	01/13/23 13:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	400		5.01	mg/Kg			01/14/23 04:08	1

Client Sample ID: FS22

Lab Sample ID: 890-3797-8

Date Collected: 01/05/23 09:55

Matrix: Solid

Date Received: 01/10/23 09:05

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 *- *1	0.00200	mg/Kg		01/11/23 12:53	01/15/23 00:07	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		01/11/23 12:53	01/15/23 00:07	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		01/11/23 12:53	01/15/23 00:07	1
m-Xylene & p-Xylene	<0.00401	U *1	0.00401	mg/Kg		01/11/23 12:53	01/15/23 00:07	1
o-Xylene	<0.00200	U *1	0.00200	mg/Kg		01/11/23 12:53	01/15/23 00:07	1
Xylenes, Total	<0.00401	U *1	0.00401	mg/Kg		01/11/23 12:53	01/15/23 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	01/11/23 12:53	01/15/23 00:07	1
1,4-Difluorobenzene (Surr)	91		70 - 130	01/11/23 12:53	01/15/23 00:07	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:45	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS22

Lab Sample ID: 890-3797-8

Date Collected: 01/05/23 09:55

Matrix: Solid

Date Received: 01/10/23 09:05

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	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 14:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 14:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 14:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			01/12/23 09:29	01/13/23 14:19	1
o-Terphenyl	111		70 - 130			01/12/23 09:29	01/13/23 14:19	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	264		5.00	mg/Kg			01/14/23 04:14	1

Client Sample ID: FS24

Lab Sample ID: 890-3797-9

Date Collected: 01/05/23 10:00

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *- *1	0.00200	mg/Kg		01/11/23 12:53	01/15/23 00:33	1
Toluene	<0.00200	U *- *1	0.00200	mg/Kg		01/11/23 12:53	01/15/23 00:33	1
Ethylbenzene	<0.00200	U *- *1	0.00200	mg/Kg		01/11/23 12:53	01/15/23 00:33	1
m-Xylene & p-Xylene	<0.00399	U *1	0.00399	mg/Kg		01/11/23 12:53	01/15/23 00:33	1
o-Xylene	<0.00200	U *1	0.00200	mg/Kg		01/11/23 12:53	01/15/23 00:33	1
Xylenes, Total	<0.00399	U *1	0.00399	mg/Kg		01/11/23 12:53	01/15/23 00:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130			01/11/23 12:53	01/15/23 00:33	1
1,4-Difluorobenzene (Surr)	88		70 - 130			01/11/23 12:53	01/15/23 00:33	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			01/16/23 16:58	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 14:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 14:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 14:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			01/12/23 09:29	01/13/23 14:42	1
o-Terphenyl	124		70 - 130			01/12/23 09:29	01/13/23 14:42	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS24

Lab Sample ID: 890-3797-9

Date Collected: 01/05/23 10:00

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	264		4.96	mg/Kg			01/14/23 04:20	1

Client Sample ID: FS25

Lab Sample ID: 890-3797-10

Date Collected: 01/06/23 10:35

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *- *1	0.00201	mg/Kg		01/11/23 12:53	01/15/23 01:00	1
Toluene	<0.00201	U *- *1	0.00201	mg/Kg		01/11/23 12:53	01/15/23 01:00	1
Ethylbenzene	<0.00201	U *- *1	0.00201	mg/Kg		01/11/23 12:53	01/15/23 01:00	1
m-Xylene & p-Xylene	<0.00402	U *1	0.00402	mg/Kg		01/11/23 12:53	01/15/23 01:00	1
o-Xylene	<0.00201	U *1	0.00201	mg/Kg		01/11/23 12:53	01/15/23 01:00	1
Xylenes, Total	<0.00402	U *1	0.00402	mg/Kg		01/11/23 12:53	01/15/23 01:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			01/11/23 12:53	01/15/23 01:00	1
1,4-Difluorobenzene (Surr)	76		70 - 130			01/11/23 12:53	01/15/23 01:00	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 15:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 15:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 15:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			01/12/23 09:29	01/13/23 15:04	1
o-Terphenyl	129		70 - 130			01/12/23 09:29	01/13/23 15:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	169		4.96	mg/Kg			01/14/23 04:26	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS26

Lab Sample ID: 890-3797-11

Date Collected: 01/06/23 12:10

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/13/23 14:03	01/16/23 23:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/16/23 23:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/16/23 23:50	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/13/23 14:03	01/16/23 23:50	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		01/13/23 14:03	01/16/23 23:50	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/13/23 14:03	01/16/23 23:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	01/13/23 14:03	01/16/23 23:50	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/13/23 14:03	01/16/23 23:50	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			01/17/23 14:25	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 15:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 15:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	01/12/23 09:29	01/13/23 15:48	1
o-Terphenyl	114		70 - 130	01/12/23 09:29	01/13/23 15:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	205	F1	4.95	mg/Kg			01/14/23 04:33	1

Client Sample ID: FS27

Lab Sample ID: 890-3797-12

Date Collected: 01/05/23 10:20

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/13/23 14:03	01/17/23 02:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/13/23 14:03	01/17/23 02:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/13/23 14:03	01/17/23 02:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/13/23 14:03	01/17/23 02:55	1
o-Xylene	<0.00199	U *	0.00199	mg/Kg		01/13/23 14:03	01/17/23 02:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/13/23 14:03	01/17/23 02:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	01/13/23 14:03	01/17/23 02:55	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS27

Lab Sample ID: 890-3797-12

Date Collected: 01/05/23 10:20

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	82		70 - 130	01/13/23 14:03	01/17/23 02:55	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			01/17/23 14:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 16:10	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 16:10	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/12/23 09:29	01/13/23 16:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			01/12/23 09:29	01/13/23 16:10	1
o-Terphenyl	115		70 - 130			01/12/23 09:29	01/13/23 16:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	323		5.05	mg/Kg			01/14/23 04:51	1

Client Sample ID: FS28

Lab Sample ID: 890-3797-13

Date Collected: 01/06/23 12:15

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/13/23 14:03	01/17/23 03:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:15	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/13/23 14:03	01/17/23 03:15	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:15	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/13/23 14:03	01/17/23 03:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	01/13/23 14:03	01/17/23 03:15	1
1,4-Difluorobenzene (Surr)	95		70 - 130	01/13/23 14:03	01/17/23 03:15	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			01/17/23 14:25	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			01/16/23 16:45	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS28

Date Collected: 01/06/23 12:15

Date Received: 01/10/23 09:05

Sample Depth: 1.5

Lab Sample ID: 890-3797-13

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 16:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 16:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 16:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			01/12/23 09:29	01/13/23 16:32	1
o-Terphenyl	128		70 - 130			01/12/23 09:29	01/13/23 16:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	119		5.03	mg/Kg			01/14/23 04:57	1

Client Sample ID: FS29

Date Collected: 01/05/23 10:25

Date Received: 01/10/23 09:05

Sample Depth: 1.5

Lab Sample ID: 890-3797-14

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/13/23 14:03	01/17/23 03:36	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/13/23 14:03	01/17/23 03:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			01/13/23 14:03	01/17/23 03:36	1
1,4-Difluorobenzene (Surr)	94		70 - 130			01/13/23 14:03	01/17/23 03:36	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			01/17/23 14:25	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 16:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 16:55	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 16:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			01/12/23 09:29	01/13/23 16:55	1
o-Terphenyl	110		70 - 130			01/12/23 09:29	01/13/23 16:55	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS29

Lab Sample ID: 890-3797-14

Date Collected: 01/05/23 10:25

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	147		5.01	mg/Kg			01/14/23 05:16	1

Client Sample ID: FS30

Lab Sample ID: 890-3797-15

Date Collected: 01/05/23 10:30

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/13/23 14:03	01/17/23 03:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:56	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/13/23 14:03	01/17/23 03:56	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		01/13/23 14:03	01/17/23 03:56	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/13/23 14:03	01/17/23 03:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			01/13/23 14:03	01/17/23 03:56	1
1,4-Difluorobenzene (Surr)	91		70 - 130			01/13/23 14:03	01/17/23 03:56	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			01/17/23 14:25	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 17:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 17:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 17:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			01/12/23 09:29	01/13/23 17:17	1
o-Terphenyl	128		70 - 130			01/12/23 09:29	01/13/23 17:17	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	225		5.01	mg/Kg			01/14/23 05:22	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS32

Lab Sample ID: 890-3797-16

Date Collected: 01/06/23 12:20

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/13/23 14:03	01/17/23 04:17	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/13/23 14:03	01/17/23 04:17	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/13/23 14:03	01/17/23 04:17	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/13/23 14:03	01/17/23 04:17	1
o-Xylene	<0.00198	U *	0.00198	mg/Kg		01/13/23 14:03	01/17/23 04:17	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/13/23 14:03	01/17/23 04:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	01/13/23 14:03	01/17/23 04:17	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/13/23 14:03	01/17/23 04:17	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			01/17/23 14:25	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 17:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 17:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	01/12/23 09:29	01/13/23 17:39	1
o-Terphenyl	121		70 - 130	01/12/23 09:29	01/13/23 17:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	152		5.02	mg/Kg			01/14/23 05:28	1

Client Sample ID: FS33

Lab Sample ID: 890-3797-17

Date Collected: 01/05/23 10:55

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/13/23 14:03	01/17/23 04:37	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/13/23 14:03	01/17/23 04:37	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/13/23 14:03	01/17/23 04:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/13/23 14:03	01/17/23 04:37	1
o-Xylene	<0.00199	U *	0.00199	mg/Kg		01/13/23 14:03	01/17/23 04:37	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/13/23 14:03	01/17/23 04:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	01/13/23 14:03	01/17/23 04:37	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS33

Lab Sample ID: 890-3797-17

Date Collected: 01/05/23 10:55

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	84		70 - 130	01/13/23 14:03	01/17/23 04:37	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			01/17/23 14:25	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 18:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 18:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 09:29	01/13/23 18:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			01/12/23 09:29	01/13/23 18:01	1
o-Terphenyl	122		70 - 130			01/12/23 09:29	01/13/23 18:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	370		5.00	mg/Kg			01/14/23 05:34	1

Client Sample ID: FS34

Lab Sample ID: 890-3797-18

Date Collected: 01/05/23 12:25

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/13/23 14:03	01/17/23 04:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 04:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/17/23 04:58	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/13/23 14:03	01/17/23 04:58	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		01/13/23 14:03	01/17/23 04:58	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/13/23 14:03	01/17/23 04:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	01/13/23 14:03	01/17/23 04:58	1
1,4-Difluorobenzene (Surr)	94		70 - 130	01/13/23 14:03	01/17/23 04:58	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			01/17/23 14:25	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			01/16/23 16:45	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS34

Lab Sample ID: 890-3797-18

Date Collected: 01/05/23 12:25

Matrix: Solid

Date Received: 01/10/23 09:05

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	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 18:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 18:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 18:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			01/12/23 09:29	01/13/23 18:23	1
o-Terphenyl	123		70 - 130			01/12/23 09:29	01/13/23 18:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	165		4.99	mg/Kg			01/14/23 05:40	1

Client Sample ID: FS35

Lab Sample ID: 890-3797-19

Date Collected: 01/06/23 12:40

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5

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		01/13/23 14:03	01/17/23 05:18	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/13/23 14:03	01/17/23 05:18	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/13/23 14:03	01/17/23 05:18	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/13/23 14:03	01/17/23 05:18	1
o-Xylene	<0.00201	U *	0.00201	mg/Kg		01/13/23 14:03	01/17/23 05:18	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/13/23 14:03	01/17/23 05:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			01/13/23 14:03	01/17/23 05:18	1
1,4-Difluorobenzene (Surr)	84		70 - 130			01/13/23 14:03	01/17/23 05:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/17/23 14:25	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 18:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 18:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 18:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			01/12/23 09:29	01/13/23 18:45	1
o-Terphenyl	129		70 - 130			01/12/23 09:29	01/13/23 18:45	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS35

Lab Sample ID: 890-3797-19

Date Collected: 01/06/23 12:40

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	103		5.00	mg/Kg			01/14/23 05:46	1

Client Sample ID: FS36

Lab Sample ID: 890-3797-20

Date Collected: 01/06/23 12:45

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/13/23 14:03	01/17/23 05:38	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/13/23 14:03	01/17/23 05:38	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/13/23 14:03	01/17/23 05:38	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/13/23 14:03	01/17/23 05:38	1
o-Xylene	<0.00198	U *	0.00198	mg/Kg		01/13/23 14:03	01/17/23 05:38	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/13/23 14:03	01/17/23 05:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			01/13/23 14:03	01/17/23 05:38	1
1,4-Difluorobenzene (Surr)	66	S1-	70 - 130			01/13/23 14:03	01/17/23 05:38	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			01/17/23 14:25	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			01/16/23 16:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 19:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 19:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 19:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			01/12/23 09:29	01/13/23 19:08	1
o-Terphenyl	133	S1+	70 - 130			01/12/23 09:29	01/13/23 19:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	144		5.04	mg/Kg			01/14/23 05:53	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS37

Lab Sample ID: 890-3797-21

Date Collected: 01/06/23 12:50

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 13:08	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 13:08	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 13:08	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/11/23 12:47	01/14/23 13:08	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 13:08	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/11/23 12:47	01/14/23 13:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	01/11/23 12:47	01/14/23 13:08	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 13:08	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			01/16/23 16:58	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			01/16/23 16:39	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		01/12/23 11:39	01/15/23 11:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 11:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	01/12/23 11:39	01/15/23 11:05	1
o-Terphenyl	108		70 - 130	01/12/23 11:39	01/15/23 11:05	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	263		5.03	mg/Kg			01/14/23 06:42	1

Client Sample ID: FS38

Lab Sample ID: 890-3797-22

Date Collected: 01/05/23 11:30

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 13:34	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 13:34	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 13:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/11/23 12:47	01/14/23 13:34	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 13:34	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/11/23 12:47	01/14/23 13:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	01/11/23 12:47	01/14/23 13:34	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS38

Lab Sample ID: 890-3797-22

Date Collected: 01/05/23 11:30

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 13:34	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/16/23 16:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/12/23 11:39	01/15/23 12:11	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/12/23 11:39	01/15/23 12:11	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/12/23 11:39	01/15/23 12:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130			01/12/23 11:39	01/15/23 12:11	1
o-Terphenyl	128		70 - 130			01/12/23 11:39	01/15/23 12:11	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	121		5.00	mg/Kg			01/14/23 07:01	1

Client Sample ID: FS39

Lab Sample ID: 890-3797-23

Date Collected: 01/05/23 11:35

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 14:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 14:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 14:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 14:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 14:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	01/11/23 12:47	01/14/23 14:01	1
1,4-Difluorobenzene (Surr)	93		70 - 130	01/11/23 12:47	01/14/23 14:01	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			01/16/23 16:58	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			01/16/23 16:39	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS39

Lab Sample ID: 890-3797-23

Date Collected: 01/05/23 11:35

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 12:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 12:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 12:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			01/12/23 11:39	01/15/23 12:34	1
o-Terphenyl	110		70 - 130			01/12/23 11:39	01/15/23 12:34	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	616		5.03	mg/Kg			01/25/23 14:21	1

Client Sample ID: FS40

Lab Sample ID: 890-3797-24

Date Collected: 01/06/23 12:55

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 14:27	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 14:27	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 14:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 14:27	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 14:27	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 14:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130			01/11/23 12:47	01/14/23 14:27	1
1,4-Difluorobenzene (Surr)	95		70 - 130			01/11/23 12:47	01/14/23 14:27	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/16/23 16:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/12/23 11:39	01/15/23 12:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/12/23 11:39	01/15/23 12:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/12/23 11:39	01/15/23 12:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130			01/12/23 11:39	01/15/23 12:56	1
o-Terphenyl	130		70 - 130			01/12/23 11:39	01/15/23 12:56	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS40

Lab Sample ID: 890-3797-24

Date Collected: 01/06/23 12:55

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	136		5.05	mg/Kg			01/14/23 07:13	1

Client Sample ID: FS41

Lab Sample ID: 890-3797-25

Date Collected: 01/06/23 13:00

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 14:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 14:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 14:54	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/11/23 12:47	01/14/23 14:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 14:54	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/11/23 12:47	01/14/23 14:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			01/11/23 12:47	01/14/23 14:54	1
1,4-Difluorobenzene (Surr)	90		70 - 130			01/11/23 12:47	01/14/23 14:54	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			01/16/23 16:58	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			01/16/23 16:39	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		01/12/23 11:39	01/15/23 13:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 13:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 13:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			01/12/23 11:39	01/15/23 13:18	1
o-Terphenyl	110		70 - 130			01/12/23 11:39	01/15/23 13:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	220		4.99	mg/Kg			01/14/23 07:19	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS42

Lab Sample ID: 890-3797-26

Date Collected: 01/06/23 13:05

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 15:20	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 15:20	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 15:20	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/11/23 12:47	01/14/23 15:20	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 15:20	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/11/23 12:47	01/14/23 15:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	01/11/23 12:47	01/14/23 15:20	1
1,4-Difluorobenzene (Surr)	94		70 - 130	01/11/23 12:47	01/14/23 15:20	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:39	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		01/12/23 11:39	01/15/23 13:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 13:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	01/12/23 11:39	01/15/23 13:40	1
o-Terphenyl	106		70 - 130	01/12/23 11:39	01/15/23 13:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	179		5.01	mg/Kg			01/14/23 07:38	1

Client Sample ID: FS43

Lab Sample ID: 890-3797-27

Date Collected: 01/06/23 13:10

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/11/23 12:47	01/14/23 15:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 15:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 15:47	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/11/23 12:47	01/14/23 15:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 15:47	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/11/23 12:47	01/14/23 15:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	01/11/23 12:47	01/14/23 15:47	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS43

Lab Sample ID: 890-3797-27

Date Collected: 01/06/23 13:10

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	01/11/23 12:47	01/14/23 15:47	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:39	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		01/12/23 11:39	01/15/23 14:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 14:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 14:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			01/12/23 11:39	01/15/23 14:02	1
o-Terphenyl	108		70 - 130			01/12/23 11:39	01/15/23 14:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	169		5.00	mg/Kg			01/14/23 07:44	1

Client Sample ID: FS44

Lab Sample ID: 890-3797-28

Date Collected: 01/06/23 13:15

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/11/23 12:47	01/14/23 16:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 16:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 16:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 16:13	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 16:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	01/11/23 12:47	01/14/23 16:13	1
1,4-Difluorobenzene (Surr)	96		70 - 130	01/11/23 12:47	01/14/23 16:13	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			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:39	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS44

Lab Sample ID: 890-3797-28

Date Collected: 01/06/23 13:15

Matrix: Solid

Date Received: 01/10/23 09:05

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	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 14:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 14:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 14:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			01/12/23 11:39	01/15/23 14:23	1
o-Terphenyl	119		70 - 130			01/12/23 11:39	01/15/23 14:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.5		5.02	mg/Kg			01/14/23 07:50	1

Client Sample ID: FS45

Lab Sample ID: 890-3797-29

Date Collected: 01/06/23 13:20

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/11/23 12:47	01/14/23 16:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 16:40	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 16:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 16:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 16:40	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 16:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			01/11/23 12:47	01/14/23 16:40	1
1,4-Difluorobenzene (Surr)	98		70 - 130			01/11/23 12:47	01/14/23 16:40	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/16/23 16:58	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			01/16/23 16:39	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		01/12/23 11:39	01/15/23 14:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 14:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 11:39	01/15/23 14:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			01/12/23 11:39	01/15/23 14:45	1
o-Terphenyl	101		70 - 130			01/12/23 11:39	01/15/23 14:45	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS45

Lab Sample ID: 890-3797-29

Date Collected: 01/06/23 13:20

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	271		5.01	mg/Kg			01/14/23 07:56	1

Client Sample ID: FS46

Lab Sample ID: 890-3797-30

Date Collected: 01/06/23 13:25

Matrix: Solid

Date Received: 01/10/23 09:05

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		01/11/23 12:47	01/14/23 17:06	1
Toluene	<0.00198	U	0.00198	mg/Kg		01/11/23 12:47	01/14/23 17:06	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		01/11/23 12:47	01/14/23 17:06	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		01/11/23 12:47	01/14/23 17:06	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		01/11/23 12:47	01/14/23 17:06	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		01/11/23 12:47	01/14/23 17:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			01/11/23 12:47	01/14/23 17:06	1
1,4-Difluorobenzene (Surr)	94		70 - 130			01/11/23 12:47	01/14/23 17:06	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:39	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		01/12/23 11:39	01/15/23 15:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 15:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 15:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130			01/12/23 11:39	01/15/23 15:08	1
o-Terphenyl	99		70 - 130			01/12/23 11:39	01/15/23 15:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	178		5.00	mg/Kg			01/14/23 08:02	1

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Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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)
890-3797-1	FS13	103	92
890-3797-1 MS	FS13	119	109
890-3797-1 MSD	FS13	109	107
890-3797-2	FS14	108	94
890-3797-3	FS16	113	95
890-3797-4	FS17	108	92
890-3797-5	FS18	116	95
890-3797-6	FS19	126	97
890-3797-7	FS21	113	98
890-3797-8	FS22	116	91
890-3797-9	FS24	128	88
890-3797-10	FS25	105	76
890-3797-11	FS26	99	92
890-3797-12	FS27	79	82
890-3797-13	FS28	98	95
890-3797-14	FS29	101	94
890-3797-15	FS30	97	91
890-3797-16	FS32	108	92
890-3797-17	FS33	125	84
890-3797-18	FS34	102	94
890-3797-19	FS35	103	84
890-3797-20	FS36	95	66 S1-
890-3797-21	FS37	112	90
890-3797-22	FS38	106	90
890-3797-23	FS39	124	93
890-3797-24	FS40	122	95
890-3797-25	FS41	106	90
890-3797-26	FS42	127	94
890-3797-27	FS43	132 S1+	98
890-3797-28	FS44	124	96
890-3797-29	FS45	123	98
890-3797-30	FS46	110	94
890-3828-A-1-B MS	Matrix Spike	97	101
890-3828-A-1-C MSD	Matrix Spike Duplicate	113	98
LCS 880-43735/1-A	Lab Control Sample	105	102
LCS 880-43736/1-A	Lab Control Sample	106	82
LCS 880-43913/1-A	Lab Control Sample	119	104
LCSD 880-43735/2-A	Lab Control Sample Dup	106	105
LCSD 880-43736/2-A	Lab Control Sample Dup	127	90
LCSD 880-43913/2-A	Lab Control Sample Dup	119	100
MB 880-43732/5-A	Method Blank	71	89
MB 880-43735/5-A	Method Blank	75	90
MB 880-43736/5-A	Method Blank	75	87
MB 880-43913/5-A	Method Blank	85	90
MB 880-43969/5-A	Method Blank	83	90

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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)
890-3797-1	FS13	87	102
890-3797-1 MS	FS13	98	100
890-3797-1 MSD	FS13	83	89
890-3797-2	FS14	106	123
890-3797-3	FS16	90	111
890-3797-4	FS17	94	116
890-3797-5	FS18	105	120
890-3797-6	FS19	104	123
890-3797-7	FS21	91	111
890-3797-8	FS22	99	111
890-3797-9	FS24	106	124
890-3797-10	FS25	108	129
890-3797-11	FS26	91	114
890-3797-12	FS27	93	115
890-3797-13	FS28	106	128
890-3797-14	FS29	89	110
890-3797-15	FS30	106	128
890-3797-16	FS32	101	121
890-3797-17	FS33	95	122
890-3797-18	FS34	100	123
890-3797-19	FS35	108	129
890-3797-20	FS36	110	133 S1+
890-3797-21	FS37	98	108
890-3797-21 MS	FS37	82	84
890-3797-21 MSD	FS37	93	92
890-3797-22	FS38	124	128
890-3797-23	FS39	106	110
890-3797-24	FS40	123	130
890-3797-25	FS41	106	110
890-3797-26	FS42	97	106
890-3797-27	FS43	104	108
890-3797-28	FS44	109	119
890-3797-29	FS45	94	101
890-3797-30	FS46	93	99
LCS 880-43794/2-A	Lab Control Sample	106	121
LCS 880-43803/2-A	Lab Control Sample	103	109
LCSD 880-43794/3-A	Lab Control Sample Dup	102	116
LCSD 880-43803/3-A	Lab Control Sample Dup	113	107
MB 880-43794/1-A	Method Blank	164 S1+	189 S1+
MB 880-43803/1-A	Method Blank	172 S1+	175 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43732

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/11/23 12:26	01/13/23 17:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/11/23 12:26	01/13/23 17:05	1

Lab Sample ID: MB 880-43735/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43735

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/11/23 12:47	01/14/23 06:48	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 06:48	1

Lab Sample ID: LCS 880-43735/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1102		mg/Kg		110	70 - 130
Toluene	0.100	0.09645		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09590		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09743		mg/Kg		97	70 - 130

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1207		mg/Kg		121	70 - 130	9	35

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	9	35
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2215		mg/Kg		111	70 - 130	11	35
o-Xylene	0.100	0.1083		mg/Kg		108	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: MB 880-43736/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43736

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:53	01/14/23 20:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:53	01/14/23 20:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:53	01/14/23 20:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:53	01/14/23 20:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:53	01/14/23 20:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:53	01/14/23 20:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/11/23 12:53	01/14/23 20:36	1
1,4-Difluorobenzene (Surr)	87		70 - 130	01/11/23 12:53	01/14/23 20:36	1

Lab Sample ID: LCS 880-43736/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43736

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.06463	*-	mg/Kg		65	70 - 130
Toluene	0.100	0.06657	*-	mg/Kg		67	70 - 130
Ethylbenzene	0.100	0.06757	*-	mg/Kg		68	70 - 130
m-Xylene & p-Xylene	0.200	0.1414		mg/Kg		71	70 - 130
o-Xylene	0.100	0.07230		mg/Kg		72	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: LCSD 880-43736/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43736

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1027	*1	mg/Kg		103	70 - 130	46	35
Toluene	0.100	0.1028	*1	mg/Kg		103	70 - 130	43	35
Ethylbenzene	0.100	0.1029	*1	mg/Kg		103	70 - 130	41	35

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43736/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43736

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	0.200	0.2154	*1	mg/Kg		108	70 - 130	41	35
o-Xylene	0.100	0.1084	*1	mg/Kg		108	70 - 130	40	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	127		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 890-3797-1 MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: FS13

Prep Type: Total/NA

Prep Batch: 43736

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U *- *1	0.100	0.1167		mg/Kg		116	70 - 130
Toluene	<0.00202	U *- *1	0.100	0.1024		mg/Kg		102	70 - 130
Ethylbenzene	<0.00202	U *- *1	0.100	0.1036		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00403	U *1	0.201	0.2128		mg/Kg		106	70 - 130
o-Xylene	<0.00202	U *1	0.100	0.1024		mg/Kg		102	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 890-3797-1 MSD

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: FS13

Prep Type: Total/NA

Prep Batch: 43736

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U *- *1	0.0990	0.1026		mg/Kg		104	70 - 130	13	35
Toluene	<0.00202	U *- *1	0.0990	0.09120		mg/Kg		92	70 - 130	12	35
Ethylbenzene	<0.00202	U *- *1	0.0990	0.08775		mg/Kg		89	70 - 130	17	35
m-Xylene & p-Xylene	<0.00403	U *1	0.198	0.1813		mg/Kg		92	70 - 130	16	35
o-Xylene	<0.00202	U *1	0.0990	0.09014		mg/Kg		91	70 - 130	13	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: MB 880-43913/5-A

Matrix: Solid

Analysis Batch: 43959

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43913

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/16/23 22:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/16/23 22:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/16/23 22:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/13/23 14:03	01/16/23 22:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/13/23 14:03	01/16/23 22:07	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/13/23 14:03	01/16/23 22:07	1

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	01/13/23 14:03	01/16/23 22:07	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/13/23 14:03	01/16/23 22:07	1

Lab Sample ID: LCS 880-43913/1-A

Matrix: Solid

Analysis Batch: 43959

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1043		mg/Kg		104	70 - 130
Toluene	0.100	0.1082		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1054		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2303		mg/Kg		115	70 - 130
o-Xylene	0.100	0.1406	*+	mg/Kg		141	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-43913/2-A

Matrix: Solid

Analysis Batch: 43959

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43913

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09122		mg/Kg		91	70 - 130	13	35
Toluene	0.100	0.09650		mg/Kg		97	70 - 130	11	35
Ethylbenzene	0.100	0.09396		mg/Kg		94	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2079		mg/Kg		104	70 - 130	10	35
o-Xylene	0.100	0.1221		mg/Kg		122	70 - 130	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-3828-A-1-B MS

Matrix: Solid

Analysis Batch: 43959

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43913

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.07974		mg/Kg		80	70 - 130
Toluene	<0.00201	U	0.100	0.08136		mg/Kg		81	70 - 130
Ethylbenzene	<0.00201	U	0.100	0.07176		mg/Kg		72	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1497		mg/Kg		75	70 - 130
o-Xylene	<0.00201	U *+	0.100	0.08631		mg/Kg		86	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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

Lab Sample ID: 890-3828-A-1-C MSD

Matrix: Solid

Analysis Batch: 43959

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43913

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	0.07941		mg/Kg		80	70 - 130	0	35
Toluene	<0.00201	U	0.0990	0.08542		mg/Kg		86	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.08183		mg/Kg		83	70 - 130	13	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1775		mg/Kg		90	70 - 130	17	35
o-Xylene	<0.00201	U *	0.0990	0.1015		mg/Kg		103	70 - 130	16	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-43969/5-A

Matrix: Solid

Analysis Batch: 43959

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43969

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/16/23 09:18	01/16/23 11:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/16/23 09:18	01/16/23 11:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/16/23 09:18	01/16/23 11:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/16/23 09:18	01/16/23 11:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/16/23 09:18	01/16/23 11:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/16/23 09:18	01/16/23 11:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	01/16/23 09:18	01/16/23 11:30	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/16/23 09:18	01/16/23 11:30	1

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

Lab Sample ID: MB 880-43794/1-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43794

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		01/12/23 09:29	01/13/23 08:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 08:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 09:29	01/13/23 08:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	164	S1+	70 - 130	01/12/23 09:29	01/13/23 08:27	1
o-Terphenyl	189	S1+	70 - 130	01/12/23 09:29	01/13/23 08:27	1

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-43794/2-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1064		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1007		mg/Kg		101	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	106		70 - 130				
o-Terphenyl	121		70 - 130				

Lab Sample ID: LCSD 880-43794/3-A

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43794

Report Data: 10/20/2017											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limits
Gasoline Range Organics (GRO)-C6-C10			1000	964.2		mg/Kg		96	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	955.1		mg/Kg		96	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
1-Chlorooctane	102		70 - 130								
o-Terphenyl	116		70 - 130								

Lab Sample ID: 890-3797-1 MS

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: FS13

Prep Type: Total/NA

Prep Batch: 43794

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	963.2		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1083		mg/Kg		105	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	98		70 - 130						
o-Terphenyl	100		70 - 130						

Lab Sample ID: 890-3797-1 MSD

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: FS13

Prep Type: Total/NA

Prep Batch: 43794

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	997	1117		mg/Kg	-	110	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	939.5		mg/Kg		91	70 - 130	14	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	83		70 - 130								

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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

Lab Sample ID: 890-3797-1 MSD

Matrix: Solid

Analysis Batch: 43852

Client Sample ID: FS13

Prep Type: Total/NA

Prep Batch: 43794

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	89		70 - 130

Lab Sample ID: MB 880-43803/1-A

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43803

	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		01/12/23 11:39	01/15/23 08:29	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 08:29	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:39	01/15/23 08:29	1	
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	172	S1+	70 - 130			01/12/23 11:39	01/15/23 08:29	1	
<i>o</i> -Terphenyl	175	S1+	70 - 130			01/12/23 11:39	01/15/23 08:29	1	

Lab Sample ID: LCS 880-43803/2-A

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43803

		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10		1000	903.8		mg/Kg		90	70 - 130	
Diesel Range Organics (Over C10-C28)		1000	1001		mg/Kg		100	70 - 130	
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	103		70 - 130						
<i>o</i> -Terphenyl	109		70 - 130						

Lab Sample ID: LCSD 880-43803/3-A

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43803

		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10		1000	939.8		mg/Kg		94	70 - 130	4	20
Diesel Range Organics (Over C10-C28)		1000	892.5		mg/Kg		89	70 - 130	11	20
	LCSD	LCSD								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	113		70 - 130							
<i>o</i> -Terphenyl	107		70 - 130							

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

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

Lab Sample ID: 890-3797-21 MS

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: FS37

Prep Type: Total/NA

Prep Batch: 43803

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	954.0		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	938.0		mg/Kg		94	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	82		70 - 130						
o-Terphenyl	84		70 - 130						

Lab Sample ID: 890-3797-21 MSD

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: FS37

Prep Type: Total/NA

Prep Batch: 43803

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	997	1082		mg/Kg		108	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1023		mg/Kg		103	70 - 130	9	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	93		70 - 130								
o-Terphenyl	92		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43789/1-A

Matrix: Solid

Analysis Batch: 43929

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			01/14/23 02:48	1

Lab Sample ID: LCS 880-43789/2-A

Matrix: Solid

Analysis Batch: 43929

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	269.7		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-43789/3-A

Matrix: Solid

Analysis Batch: 43929

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	264.3		mg/Kg		106	90 - 110	2	20

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3797-1 MS

Matrix: Solid

Analysis Batch: 43929

Client Sample ID: FS13

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	265	F1	250	547.5	F1	mg/Kg		113	90 - 110		

Lab Sample ID: 890-3797-1 MSD

Matrix: Solid

Analysis Batch: 43929

Client Sample ID: FS13

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	265	F1	250	552.9	F1	mg/Kg		115	90 - 110	1	20

Lab Sample ID: 890-3797-11 MS

Matrix: Solid

Analysis Batch: 43929

Client Sample ID: FS26

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	205	F1	248	506.8	F1	mg/Kg		122	90 - 110		

Lab Sample ID: 890-3797-11 MSD

Matrix: Solid

Analysis Batch: 43929

Client Sample ID: FS26

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	205	F1	248	504.4	F1	mg/Kg		121	90 - 110	0	20

Lab Sample ID: MB 880-43791/1-A

Matrix: Solid

Analysis Batch: 43930

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			01/14/23 06:23	1

Lab Sample ID: LCS 880-43791/2-A

Matrix: Solid

Analysis Batch: 43930

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	271.6		mg/Kg		109	90 - 110		

Lab Sample ID: LCS 880-43791/3-A

Matrix: Solid

Analysis Batch: 43930

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	270.6		mg/Kg		108	90 - 110		

Lab Sample ID: 890-3797-21 MS

Matrix: Solid

Analysis Batch: 43930

Client Sample ID: FS37

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	263		252	534.4		mg/Kg		108	90 - 110		

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-3797-21 MSD

Matrix: Solid

Analysis Batch: 43930

Client Sample ID: FS37

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	263		252	535.5		mg/Kg		108	90 - 110	0	20

Lab Sample ID: MB 880-44664/1-A

Matrix: Solid

Analysis Batch: 44719

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			01/25/23 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 Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%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

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-A-8-B MS

Matrix: Solid

Analysis Batch: 44719

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	13.6	F1	251	325.9	F1	mg/Kg		125	90 - 110

Lab Sample ID: 880-23892-A-8-C MSD

Matrix: Solid

Analysis Batch: 44719

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	13.6	F1	251	327.2	F1	mg/Kg		125	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 43735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-21	FS37	Total/NA	Solid	5035	
890-3797-22	FS38	Total/NA	Solid	5035	
890-3797-23	FS39	Total/NA	Solid	5035	
890-3797-24	FS40	Total/NA	Solid	5035	
890-3797-25	FS41	Total/NA	Solid	5035	
890-3797-26	FS42	Total/NA	Solid	5035	
890-3797-27	FS43	Total/NA	Solid	5035	
890-3797-28	FS44	Total/NA	Solid	5035	
890-3797-29	FS45	Total/NA	Solid	5035	
890-3797-30	FS46	Total/NA	Solid	5035	
MB 880-43735/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 43736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-1	FS13	Total/NA	Solid	5035	
890-3797-2	FS14	Total/NA	Solid	5035	
890-3797-3	FS16	Total/NA	Solid	5035	
890-3797-4	FS17	Total/NA	Solid	5035	
890-3797-5	FS18	Total/NA	Solid	5035	
890-3797-6	FS19	Total/NA	Solid	5035	
890-3797-7	FS21	Total/NA	Solid	5035	
890-3797-8	FS22	Total/NA	Solid	5035	
890-3797-9	FS24	Total/NA	Solid	5035	
890-3797-10	FS25	Total/NA	Solid	5035	
MB 880-43736/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43736/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43736/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3797-1 MS	FS13	Total/NA	Solid	5035	
890-3797-1 MSD	FS13	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-1	FS13	Total/NA	Solid	8021B	43736
890-3797-2	FS14	Total/NA	Solid	8021B	43736
890-3797-3	FS16	Total/NA	Solid	8021B	43736
890-3797-4	FS17	Total/NA	Solid	8021B	43736
890-3797-5	FS18	Total/NA	Solid	8021B	43736
890-3797-6	FS19	Total/NA	Solid	8021B	43736
890-3797-7	FS21	Total/NA	Solid	8021B	43736
890-3797-8	FS22	Total/NA	Solid	8021B	43736
890-3797-9	FS24	Total/NA	Solid	8021B	43736
890-3797-10	FS25	Total/NA	Solid	8021B	43736
890-3797-21	FS37	Total/NA	Solid	8021B	43735
890-3797-22	FS38	Total/NA	Solid	8021B	43735
890-3797-23	FS39	Total/NA	Solid	8021B	43735

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 43878 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-24	FS40	Total/NA	Solid	8021B	43735
890-3797-25	FS41	Total/NA	Solid	8021B	43735
890-3797-26	FS42	Total/NA	Solid	8021B	43735
890-3797-27	FS43	Total/NA	Solid	8021B	43735
890-3797-28	FS44	Total/NA	Solid	8021B	43735
890-3797-29	FS45	Total/NA	Solid	8021B	43735
890-3797-30	FS46	Total/NA	Solid	8021B	43735
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
MB 880-43735/5-A	Method Blank	Total/NA	Solid	8021B	43735
MB 880-43736/5-A	Method Blank	Total/NA	Solid	8021B	43736
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	8021B	43735
LCS 880-43736/1-A	Lab Control Sample	Total/NA	Solid	8021B	43736
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43735
LCSD 880-43736/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43736
890-3797-1 MS	FS13	Total/NA	Solid	8021B	43736
890-3797-1 MSD	FS13	Total/NA	Solid	8021B	43736

Prep Batch: 43913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-11	FS26	Total/NA	Solid	5035	
890-3797-12	FS27	Total/NA	Solid	5035	
890-3797-13	FS28	Total/NA	Solid	5035	
890-3797-14	FS29	Total/NA	Solid	5035	
890-3797-15	FS30	Total/NA	Solid	5035	
890-3797-16	FS32	Total/NA	Solid	5035	
890-3797-17	FS33	Total/NA	Solid	5035	
890-3797-18	FS34	Total/NA	Solid	5035	
890-3797-19	FS35	Total/NA	Solid	5035	
890-3797-20	FS36	Total/NA	Solid	5035	
MB 880-43913/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43913/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43913/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3828-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-3828-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-11	FS26	Total/NA	Solid	8021B	43913
890-3797-12	FS27	Total/NA	Solid	8021B	43913
890-3797-13	FS28	Total/NA	Solid	8021B	43913
890-3797-14	FS29	Total/NA	Solid	8021B	43913
890-3797-15	FS30	Total/NA	Solid	8021B	43913
890-3797-16	FS32	Total/NA	Solid	8021B	43913
890-3797-17	FS33	Total/NA	Solid	8021B	43913
890-3797-18	FS34	Total/NA	Solid	8021B	43913
890-3797-19	FS35	Total/NA	Solid	8021B	43913
890-3797-20	FS36	Total/NA	Solid	8021B	43913
MB 880-43913/5-A	Method Blank	Total/NA	Solid	8021B	43913
MB 880-43969/5-A	Method Blank	Total/NA	Solid	8021B	43969
LCS 880-43913/1-A	Lab Control Sample	Total/NA	Solid	8021B	43913
LCSD 880-43913/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43913

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 43959 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3828-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	43913
890-3828-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43913

Prep Batch: 43969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43969/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 44100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-1	FS13	Total/NA	Solid	Total BTEX	
890-3797-2	FS14	Total/NA	Solid	Total BTEX	
890-3797-3	FS16	Total/NA	Solid	Total BTEX	
890-3797-4	FS17	Total/NA	Solid	Total BTEX	
890-3797-5	FS18	Total/NA	Solid	Total BTEX	
890-3797-6	FS19	Total/NA	Solid	Total BTEX	
890-3797-7	FS21	Total/NA	Solid	Total BTEX	
890-3797-8	FS22	Total/NA	Solid	Total BTEX	
890-3797-9	FS24	Total/NA	Solid	Total BTEX	
890-3797-10	FS25	Total/NA	Solid	Total BTEX	
890-3797-11	FS26	Total/NA	Solid	Total BTEX	
890-3797-12	FS27	Total/NA	Solid	Total BTEX	
890-3797-13	FS28	Total/NA	Solid	Total BTEX	
890-3797-14	FS29	Total/NA	Solid	Total BTEX	
890-3797-15	FS30	Total/NA	Solid	Total BTEX	
890-3797-16	FS32	Total/NA	Solid	Total BTEX	
890-3797-17	FS33	Total/NA	Solid	Total BTEX	
890-3797-18	FS34	Total/NA	Solid	Total BTEX	
890-3797-19	FS35	Total/NA	Solid	Total BTEX	
890-3797-20	FS36	Total/NA	Solid	Total BTEX	
890-3797-21	FS37	Total/NA	Solid	Total BTEX	
890-3797-22	FS38	Total/NA	Solid	Total BTEX	
890-3797-23	FS39	Total/NA	Solid	Total BTEX	
890-3797-24	FS40	Total/NA	Solid	Total BTEX	
890-3797-25	FS41	Total/NA	Solid	Total BTEX	
890-3797-26	FS42	Total/NA	Solid	Total BTEX	
890-3797-27	FS43	Total/NA	Solid	Total BTEX	
890-3797-28	FS44	Total/NA	Solid	Total BTEX	
890-3797-29	FS45	Total/NA	Solid	Total BTEX	
890-3797-30	FS46	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 43794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-1	FS13	Total/NA	Solid	8015NM Prep	
890-3797-2	FS14	Total/NA	Solid	8015NM Prep	
890-3797-3	FS16	Total/NA	Solid	8015NM Prep	
890-3797-4	FS17	Total/NA	Solid	8015NM Prep	
890-3797-5	FS18	Total/NA	Solid	8015NM Prep	
890-3797-6	FS19	Total/NA	Solid	8015NM Prep	
890-3797-7	FS21	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 43794 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-8	FS22	Total/NA	Solid	8015NM Prep	
890-3797-9	FS24	Total/NA	Solid	8015NM Prep	
890-3797-10	FS25	Total/NA	Solid	8015NM Prep	
890-3797-11	FS26	Total/NA	Solid	8015NM Prep	
890-3797-12	FS27	Total/NA	Solid	8015NM Prep	
890-3797-13	FS28	Total/NA	Solid	8015NM Prep	
890-3797-14	FS29	Total/NA	Solid	8015NM Prep	
890-3797-15	FS30	Total/NA	Solid	8015NM Prep	
890-3797-16	FS32	Total/NA	Solid	8015NM Prep	
890-3797-17	FS33	Total/NA	Solid	8015NM Prep	
890-3797-18	FS34	Total/NA	Solid	8015NM Prep	
890-3797-19	FS35	Total/NA	Solid	8015NM Prep	
890-3797-20	FS36	Total/NA	Solid	8015NM Prep	
MB 880-43794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3797-1 MS	FS13	Total/NA	Solid	8015NM Prep	
890-3797-1 MSD	FS13	Total/NA	Solid	8015NM Prep	

Prep Batch: 43803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-21	FS37	Total/NA	Solid	8015NM Prep	
890-3797-22	FS38	Total/NA	Solid	8015NM Prep	
890-3797-23	FS39	Total/NA	Solid	8015NM Prep	
890-3797-24	FS40	Total/NA	Solid	8015NM Prep	
890-3797-25	FS41	Total/NA	Solid	8015NM Prep	
890-3797-26	FS42	Total/NA	Solid	8015NM Prep	
890-3797-27	FS43	Total/NA	Solid	8015NM Prep	
890-3797-28	FS44	Total/NA	Solid	8015NM Prep	
890-3797-29	FS45	Total/NA	Solid	8015NM Prep	
890-3797-30	FS46	Total/NA	Solid	8015NM Prep	
MB 880-43803/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43803/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43803/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3797-21 MS	FS37	Total/NA	Solid	8015NM Prep	
890-3797-21 MSD	FS37	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-1	FS13	Total/NA	Solid	8015B NM	43794
890-3797-2	FS14	Total/NA	Solid	8015B NM	43794
890-3797-3	FS16	Total/NA	Solid	8015B NM	43794
890-3797-4	FS17	Total/NA	Solid	8015B NM	43794
890-3797-5	FS18	Total/NA	Solid	8015B NM	43794
890-3797-6	FS19	Total/NA	Solid	8015B NM	43794
890-3797-7	FS21	Total/NA	Solid	8015B NM	43794
890-3797-8	FS22	Total/NA	Solid	8015B NM	43794
890-3797-9	FS24	Total/NA	Solid	8015B NM	43794
890-3797-10	FS25	Total/NA	Solid	8015B NM	43794
890-3797-11	FS26	Total/NA	Solid	8015B NM	43794
890-3797-12	FS27	Total/NA	Solid	8015B NM	43794

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 43852 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-13	FS28	Total/NA	Solid	8015B NM	43794
890-3797-14	FS29	Total/NA	Solid	8015B NM	43794
890-3797-15	FS30	Total/NA	Solid	8015B NM	43794
890-3797-16	FS32	Total/NA	Solid	8015B NM	43794
890-3797-17	FS33	Total/NA	Solid	8015B NM	43794
890-3797-18	FS34	Total/NA	Solid	8015B NM	43794
890-3797-19	FS35	Total/NA	Solid	8015B NM	43794
890-3797-20	FS36	Total/NA	Solid	8015B NM	43794
MB 880-43794/1-A	Method Blank	Total/NA	Solid	8015B NM	43794
LCS 880-43794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43794
LCSD 880-43794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43794
890-3797-1 MS	FS13	Total/NA	Solid	8015B NM	43794
890-3797-1 MSD	FS13	Total/NA	Solid	8015B NM	43794

Analysis Batch: 43945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-21	FS37	Total/NA	Solid	8015B NM	43803
890-3797-22	FS38	Total/NA	Solid	8015B NM	43803
890-3797-23	FS39	Total/NA	Solid	8015B NM	43803
890-3797-24	FS40	Total/NA	Solid	8015B NM	43803
890-3797-25	FS41	Total/NA	Solid	8015B NM	43803
890-3797-26	FS42	Total/NA	Solid	8015B NM	43803
890-3797-27	FS43	Total/NA	Solid	8015B NM	43803
890-3797-28	FS44	Total/NA	Solid	8015B NM	43803
890-3797-29	FS45	Total/NA	Solid	8015B NM	43803
890-3797-30	FS46	Total/NA	Solid	8015B NM	43803
MB 880-43803/1-A	Method Blank	Total/NA	Solid	8015B NM	43803
LCS 880-43803/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43803
LCSD 880-43803/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43803
890-3797-21 MS	FS37	Total/NA	Solid	8015B NM	43803
890-3797-21 MSD	FS37	Total/NA	Solid	8015B NM	43803

Analysis Batch: 44034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-1	FS13	Total/NA	Solid	8015 NM	
890-3797-2	FS14	Total/NA	Solid	8015 NM	
890-3797-3	FS16	Total/NA	Solid	8015 NM	
890-3797-4	FS17	Total/NA	Solid	8015 NM	
890-3797-5	FS18	Total/NA	Solid	8015 NM	
890-3797-6	FS19	Total/NA	Solid	8015 NM	
890-3797-7	FS21	Total/NA	Solid	8015 NM	
890-3797-8	FS22	Total/NA	Solid	8015 NM	
890-3797-9	FS24	Total/NA	Solid	8015 NM	
890-3797-10	FS25	Total/NA	Solid	8015 NM	
890-3797-11	FS26	Total/NA	Solid	8015 NM	
890-3797-12	FS27	Total/NA	Solid	8015 NM	
890-3797-13	FS28	Total/NA	Solid	8015 NM	
890-3797-14	FS29	Total/NA	Solid	8015 NM	
890-3797-15	FS30	Total/NA	Solid	8015 NM	
890-3797-16	FS32	Total/NA	Solid	8015 NM	
890-3797-17	FS33	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

GC Semi VOA (Continued)

Analysis Batch: 44034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-18	FS34	Total/NA	Solid	8015 NM	
890-3797-19	FS35	Total/NA	Solid	8015 NM	
890-3797-20	FS36	Total/NA	Solid	8015 NM	
890-3797-21	FS37	Total/NA	Solid	8015 NM	
890-3797-22	FS38	Total/NA	Solid	8015 NM	
890-3797-23	FS39	Total/NA	Solid	8015 NM	
890-3797-24	FS40	Total/NA	Solid	8015 NM	
890-3797-25	FS41	Total/NA	Solid	8015 NM	
890-3797-26	FS42	Total/NA	Solid	8015 NM	
890-3797-27	FS43	Total/NA	Solid	8015 NM	
890-3797-28	FS44	Total/NA	Solid	8015 NM	
890-3797-29	FS45	Total/NA	Solid	8015 NM	
890-3797-30	FS46	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-1	FS13	Soluble	Solid	DI Leach	
890-3797-2	FS14	Soluble	Solid	DI Leach	
890-3797-3	FS16	Soluble	Solid	DI Leach	
890-3797-4	FS17	Soluble	Solid	DI Leach	
890-3797-5	FS18	Soluble	Solid	DI Leach	
890-3797-6	FS19	Soluble	Solid	DI Leach	
890-3797-7	FS21	Soluble	Solid	DI Leach	
890-3797-8	FS22	Soluble	Solid	DI Leach	
890-3797-9	FS24	Soluble	Solid	DI Leach	
890-3797-10	FS25	Soluble	Solid	DI Leach	
890-3797-11	FS26	Soluble	Solid	DI Leach	
890-3797-12	FS27	Soluble	Solid	DI Leach	
890-3797-13	FS28	Soluble	Solid	DI Leach	
890-3797-14	FS29	Soluble	Solid	DI Leach	
890-3797-15	FS30	Soluble	Solid	DI Leach	
890-3797-16	FS32	Soluble	Solid	DI Leach	
890-3797-17	FS33	Soluble	Solid	DI Leach	
890-3797-18	FS34	Soluble	Solid	DI Leach	
890-3797-19	FS35	Soluble	Solid	DI Leach	
890-3797-20	FS36	Soluble	Solid	DI Leach	
MB 880-43789/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43789/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43789/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3797-1 MS	FS13	Soluble	Solid	DI Leach	
890-3797-1 MSD	FS13	Soluble	Solid	DI Leach	
890-3797-11 MS	FS26	Soluble	Solid	DI Leach	
890-3797-11 MSD	FS26	Soluble	Solid	DI Leach	

Leach Batch: 43791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-21	FS37	Soluble	Solid	DI Leach	
890-3797-22	FS38	Soluble	Solid	DI Leach	
890-3797-24	FS40	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 43791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-25	FS41	Soluble	Solid	DI Leach	
890-3797-26	FS42	Soluble	Solid	DI Leach	
890-3797-27	FS43	Soluble	Solid	DI Leach	
890-3797-28	FS44	Soluble	Solid	DI Leach	
890-3797-29	FS45	Soluble	Solid	DI Leach	
890-3797-30	FS46	Soluble	Solid	DI Leach	
MB 880-43791/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43791/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCS 880-43791/3-A	Lab Control Sample	Soluble	Solid	DI Leach	
890-3797-21 MS	FS37	Soluble	Solid	DI Leach	
890-3797-21 MSD	FS37	Soluble	Solid	DI Leach	

Analysis Batch: 43929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-1	FS13	Soluble	Solid	300.0	43789
890-3797-2	FS14	Soluble	Solid	300.0	43789
890-3797-3	FS16	Soluble	Solid	300.0	43789
890-3797-4	FS17	Soluble	Solid	300.0	43789
890-3797-5	FS18	Soluble	Solid	300.0	43789
890-3797-6	FS19	Soluble	Solid	300.0	43789
890-3797-7	FS21	Soluble	Solid	300.0	43789
890-3797-8	FS22	Soluble	Solid	300.0	43789
890-3797-9	FS24	Soluble	Solid	300.0	43789
890-3797-10	FS25	Soluble	Solid	300.0	43789
890-3797-11	FS26	Soluble	Solid	300.0	43789
890-3797-12	FS27	Soluble	Solid	300.0	43789
890-3797-13	FS28	Soluble	Solid	300.0	43789
890-3797-14	FS29	Soluble	Solid	300.0	43789
890-3797-15	FS30	Soluble	Solid	300.0	43789
890-3797-16	FS32	Soluble	Solid	300.0	43789
890-3797-17	FS33	Soluble	Solid	300.0	43789
890-3797-18	FS34	Soluble	Solid	300.0	43789
890-3797-19	FS35	Soluble	Solid	300.0	43789
890-3797-20	FS36	Soluble	Solid	300.0	43789
MB 880-43789/1-A	Method Blank	Soluble	Solid	300.0	43789
LCS 880-43789/2-A	Lab Control Sample	Soluble	Solid	300.0	43789
LCSD 880-43789/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43789
890-3797-1 MS	FS13	Soluble	Solid	300.0	43789
890-3797-1 MSD	FS13	Soluble	Solid	300.0	43789
890-3797-11 MS	FS26	Soluble	Solid	300.0	43789
890-3797-11 MSD	FS26	Soluble	Solid	300.0	43789

Analysis Batch: 43930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-21	FS37	Soluble	Solid	300.0	43791
890-3797-22	FS38	Soluble	Solid	300.0	43791
890-3797-24	FS40	Soluble	Solid	300.0	43791
890-3797-25	FS41	Soluble	Solid	300.0	43791
890-3797-26	FS42	Soluble	Solid	300.0	43791
890-3797-27	FS43	Soluble	Solid	300.0	43791
890-3797-28	FS44	Soluble	Solid	300.0	43791

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

HPLC/IC (Continued)

Analysis Batch: 43930 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-29	FS45	Soluble	Solid	300.0	43791
890-3797-30	FS46	Soluble	Solid	300.0	43791
MB 880-43791/1-A	Method Blank	Soluble	Solid	300.0	43791
LCS 880-43791/2-A	Lab Control Sample	Soluble	Solid	300.0	43791
LCS 880-43791/3-A	Lab Control Sample	Soluble	Solid	300.0	43791
890-3797-21 MS	FS37	Soluble	Solid	300.0	43791
890-3797-21 MSD	FS37	Soluble	Solid	300.0	43791

Leach Batch: 44664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-23	FS39	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-A-8-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-23892-A-8-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 44719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3797-23	FS39	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-A-8-B MS	Matrix Spike	Soluble	Solid	300.0	44664
880-23892-A-8-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44664

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS13

Lab Sample ID: 890-3797-1

Date Collected: 01/06/23 10:00

Matrix: Solid

Date Received: 01/10/23 09:05

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	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 21:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 11:01	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 03:06	CH	EET MID

Client Sample ID: FS14

Lab Sample ID: 890-3797-2

Date Collected: 01/06/23 10:05

Matrix: Solid

Date Received: 01/10/23 09:05

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	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 21:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 12:07	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 03:25	CH	EET MID

Client Sample ID: FS16

Lab Sample ID: 890-3797-3

Date Collected: 01/06/23 10:10

Matrix: Solid

Date Received: 01/10/23 09:05

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	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 21:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 12:29	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 03:31	CH	EET MID

Client Sample ID: FS17

Lab Sample ID: 890-3797-4

Date Collected: 01/06/23 10:15

Matrix: Solid

Date Received: 01/10/23 09:05

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	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 22:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS17

Lab Sample ID: 890-3797-4

Date Collected: 01/06/23 10:15

Matrix: Solid

Date Received: 01/10/23 09:05

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			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 12:51	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 03:37	CH	EET MID

Client Sample ID: FS18

Lab Sample ID: 890-3797-5

Date Collected: 01/06/23 10:20

Matrix: Solid

Date Received: 01/10/23 09:05

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	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 22:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 13:13	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 03:43	CH	EET MID

Client Sample ID: FS19

Lab Sample ID: 890-3797-6

Date Collected: 01/06/23 10:25

Matrix: Solid

Date Received: 01/10/23 09:05

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	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 23:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 13:35	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 04:02	CH	EET MID

Client Sample ID: FS21

Lab Sample ID: 890-3797-7

Date Collected: 01/06/23 10:30

Matrix: Solid

Date Received: 01/10/23 09:05

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	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 23:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 13:57	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS21**Date Collected: 01/06/23 10:30****Date Received: 01/10/23 09:05****Lab Sample ID: 890-3797-7****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			4.99 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 04:08	CH	EET MID

Client Sample ID: FS22**Date Collected: 01/05/23 09:55****Date Received: 01/10/23 09:05****Lab Sample ID: 890-3797-8****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			4.99 g	5 mL	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/15/23 00:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 14:19	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 04:14	CH	EET MID

Client Sample ID: FS24**Date Collected: 01/05/23 10:00****Date Received: 01/10/23 09:05****Lab Sample ID: 890-3797-9****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			5.01 g	5 mL	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/15/23 00:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 14:42	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 04:20	CH	EET MID

Client Sample ID: FS25**Date Collected: 01/06/23 10:35****Date Received: 01/10/23 09:05****Lab Sample ID: 890-3797-10****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	43736	01/11/23 12:53	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/15/23 01:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 15:04	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 04:26	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS26

Lab Sample ID: 890-3797-11

Date Collected: 01/06/23 12:10

Matrix: Solid

Date Received: 01/10/23 09:05

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/16/23 23:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 15:48	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 04:33	CH	EET MID

Client Sample ID: FS27

Lab Sample ID: 890-3797-12

Date Collected: 01/05/23 10:20

Matrix: Solid

Date Received: 01/10/23 09:05

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 02:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 16:10	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 04:51	CH	EET MID

Client Sample ID: FS28

Lab Sample ID: 890-3797-13

Date Collected: 01/06/23 12:15

Matrix: Solid

Date Received: 01/10/23 09:05

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 03:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 16:32	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 04:57	CH	EET MID

Client Sample ID: FS29

Lab Sample ID: 890-3797-14

Date Collected: 01/05/23 10:25

Matrix: Solid

Date Received: 01/10/23 09:05

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 03:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS29

Lab Sample ID: 890-3797-14

Date Collected: 01/05/23 10:25

Matrix: Solid

Date Received: 01/10/23 09:05

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			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 16:55	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 05:16	CH	EET MID

Client Sample ID: FS30

Lab Sample ID: 890-3797-15

Date Collected: 01/05/23 10:30

Matrix: Solid

Date Received: 01/10/23 09:05

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 03:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 17:17	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 05:22	CH	EET MID

Client Sample ID: FS32

Lab Sample ID: 890-3797-16

Date Collected: 01/06/23 12:20

Matrix: Solid

Date Received: 01/10/23 09:05

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 04:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 17:39	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 05:28	CH	EET MID

Client Sample ID: FS33

Lab Sample ID: 890-3797-17

Date Collected: 01/05/23 10:55

Matrix: Solid

Date Received: 01/10/23 09:05

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 04:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 18:01	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS33

Date Collected: 01/05/23 10:55

Date Received: 01/10/23 09:05

Lab Sample ID: 890-3797-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 05:34	CH	EET MID

Client Sample ID: FS34

Date Collected: 01/05/23 12:25

Date Received: 01/10/23 09:05

Lab Sample ID: 890-3797-18

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 04:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 18:23	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 05:40	CH	EET MID

Client Sample ID: FS35

Date Collected: 01/06/23 12:40

Date Received: 01/10/23 09:05

Lab Sample ID: 890-3797-19

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	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 05:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 18:45	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 05:46	CH	EET MID

Client Sample ID: FS36

Date Collected: 01/06/23 12:45

Date Received: 01/10/23 09:05

Lab Sample ID: 890-3797-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	43913	01/13/23 14:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43959	01/17/23 05:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/17/23 14:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:45	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43794	01/12/23 09:29	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43852	01/13/23 19:08	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	43789	01/12/23 09:18	KS	EET MID
Soluble	Analysis	300.0		1			43929	01/14/23 05:53	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS37

Lab Sample ID: 890-3797-21

Date Collected: 01/06/23 12:50

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 13:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 11:05	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 06:42	CH	EET MID

Client Sample ID: FS38

Lab Sample ID: 890-3797-22

Date Collected: 01/05/23 11:30

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 13:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 12:11	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 07:01	CH	EET MID

Client Sample ID: FS39

Lab Sample ID: 890-3797-23

Date Collected: 01/05/23 11:35

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 14:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 12:34	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	44664	01/24/23 15:24	KS	EET MID
Soluble	Analysis	300.0		1			44719	01/25/23 14:21	CH	EET MID

Client Sample ID: FS40

Lab Sample ID: 890-3797-24

Date Collected: 01/06/23 12:55

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 14:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS40

Lab Sample ID: 890-3797-24

Date Collected: 01/06/23 12:55

Matrix: Solid

Date Received: 01/10/23 09:05

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			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 12:56	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 07:13	CH	EET MID

Client Sample ID: FS41

Lab Sample ID: 890-3797-25

Date Collected: 01/06/23 13:00

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 14:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 13:18	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 07:19	CH	EET MID

Client Sample ID: FS42

Lab Sample ID: 890-3797-26

Date Collected: 01/06/23 13:05

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 15:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 13:40	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 07:38	CH	EET MID

Client Sample ID: FS43

Lab Sample ID: 890-3797-27

Date Collected: 01/06/23 13:10

Matrix: Solid

Date Received: 01/10/23 09:05

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 15:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 14:02	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Client Sample ID: FS43

Date Collected: 01/06/23 13:10

Date Received: 01/10/23 09:05

Lab Sample ID: 890-3797-27

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 07:44	CH	EET MID

Client Sample ID: FS44

Date Collected: 01/06/23 13:15

Date Received: 01/10/23 09:05

Lab Sample ID: 890-3797-28

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 16:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 14:23	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 07:50	CH	EET MID

Client Sample ID: FS45

Date Collected: 01/06/23 13:20

Date Received: 01/10/23 09:05

Lab Sample ID: 890-3797-29

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	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 16:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 14:45	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 07:56	CH	EET MID

Client Sample ID: FS46

Date Collected: 01/06/23 13:25

Date Received: 01/10/23 09:05

Lab Sample ID: 890-3797-30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 17:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44100	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44034	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43803	01/12/23 11:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 15:08	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43791	01/12/23 09:20	KS	EET MID
Soluble	Analysis	300.0		1			43930	01/14/23 08:02	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
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: OXY STATE F-1

Job ID: 890-3797-1
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

Method Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
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

Eurofins Carlsbad

Sample Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3797-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3797-1	FS13	Solid	01/06/23 10:00	01/10/23 09:05	1
890-3797-2	FS14	Solid	01/06/23 10:05	01/10/23 09:05	1.5'
890-3797-3	FS16	Solid	01/06/23 10:10	01/10/23 09:05	1
890-3797-4	FS17	Solid	01/06/23 10:15	01/10/23 09:05	1
890-3797-5	FS18	Solid	01/06/23 10:20	01/10/23 09:05	1
890-3797-6	FS19	Solid	01/06/23 10:25	01/10/23 09:05	1
890-3797-7	FS21	Solid	01/06/23 10:30	01/10/23 09:05	1
890-3797-8	FS22	Solid	01/05/23 09:55	01/10/23 09:05	1.5'
890-3797-9	FS24	Solid	01/05/23 10:00	01/10/23 09:05	1
890-3797-10	FS25	Solid	01/06/23 10:35	01/10/23 09:05	1.5
890-3797-11	FS26	Solid	01/06/23 12:10	01/10/23 09:05	1.5
890-3797-12	FS27	Solid	01/05/23 10:20	01/10/23 09:05	1.5
890-3797-13	FS28	Solid	01/06/23 12:15	01/10/23 09:05	1.5
890-3797-14	FS29	Solid	01/05/23 10:25	01/10/23 09:05	1.5
890-3797-15	FS30	Solid	01/05/23 10:30	01/10/23 09:05	1.5
890-3797-16	FS32	Solid	01/06/23 12:20	01/10/23 09:05	1.5
890-3797-17	FS33	Solid	01/05/23 10:55	01/10/23 09:05	1.5
890-3797-18	FS34	Solid	01/05/23 12:25	01/10/23 09:05	1.5
890-3797-19	FS35	Solid	01/06/23 12:40	01/10/23 09:05	1.5
890-3797-20	FS36	Solid	01/06/23 12:45	01/10/23 09:05	1.5
890-3797-21	FS37	Solid	01/06/23 12:50	01/10/23 09:05	3
890-3797-22	FS38	Solid	01/05/23 11:30	01/10/23 09:05	3
890-3797-23	FS39	Solid	01/05/23 11:35	01/10/23 09:05	3
890-3797-24	FS40	Solid	01/06/23 12:55	01/10/23 09:05	3
890-3797-25	FS41	Solid	01/06/23 13:00	01/10/23 09:05	3
890-3797-26	FS42	Solid	01/06/23 13:05	01/10/23 09:05	3
890-3797-27	FS43	Solid	01/06/23 13:10	01/10/23 09:05	1.5
890-3797-28	FS44	Solid	01/06/23 13:15	01/10/23 09:05	1.5
890-3797-29	FS45	Solid	01/06/23 13:20	01/10/23 09:05	1.5
890-3797-30	FS46	Solid	01/06/23 13:25	01/10/23 09:05	1.5



Environment Testing
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Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 3

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marlenfeld St Suite 400	Address:	601 N Marlenfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com

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:	Oxy State F-1	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:	03D2057051	Due Date:			
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Conner Shore				
PO #:					
SAMPLE RECEIPT	Temp Blank: ☒ Yes ☒ No	Wet Ice: ☒ Yes ☒ No			
Samples Received In tact:	☒ Yes ☒ No	Thermometer ID: 11111111			
Cooler Custody Seals:	Yes ☒ No ☒ N/A	Correction Factor: -0.2			
Sample Custody Seals:	Yes ☒ No ☒ N/A	Temperature Reading: 2.8			
Total Containers:		Corrected Temperature: 2.10			



890-3797 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	TPH (8015)	Chlorides	BTEX (8021)	ANALYSIS REQUEST	Preservative Codes
FS13	S	1.6.23	1000	1'	C	1	X	X	X		None: NO DI Water: H ₂ O
FS14	S	1.6.23	1005	1'	C	1	X	X	X		Cool: Cool MeOH: Me
FS16	S	1.6.23	1010	1'	C	1	X	X	X		HCL: HC HNO ₃ : HN
FS17	S	1.6.23	1015	1'	C	1	X	X	X		H ₂ SO ₄ : H ₂ NaOH: Na
FS18	S	1.6.23	1020	1'	C	1	X	X	X		H ₃ PO ₄ : HP NaHSO ₄ : NABIS
FS19	S	1.6.23	1025	1'	C	1	X	X	X		Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn
FS21	S	1.6.23	1030	1'	C	1	X	X	X		NaOH+Ascorbic Acid: SAPC
FS22	S	1.5.23	955	1'	C	1	X	X	X		
FS24	S	1.5.23	1000	1'	C	1	X	X	X		
FS25	S	1.6.23	1035	1.5'	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 SiO₂ 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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<i>[Signature]</i>	<i>[Signature]</i>	10:28 905	<i>[Signature]</i>	<i>[Signature]</i>	1:10:23 2023



Environment Testing
Xenco

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Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No.:

www.xenco.com Page 2 of 3

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com

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:	Oxy State F-1	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:	03D2057051	Due Date:			
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Conner Shore				
PO #:					
SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:			
Cooler Custody Seals:	Yes No	Correction Factor:			
Sample Custody Seals:	Yes No	Temperature Reading:			
Total Containers:		Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	TPH (8015)	Chlorides	BTEX (8021)	ANALYSIS REQUEST	Preservative Codes
FS26	S	1.6.23	1210	1.5'	C	1	X	X	X		None: NO DI Water: H ₂ O
FS27	S	1.5.23	1020	1.5'	C	1	X	X	X		Cool: Cool MeOH: Me
FS28	S	1.6.23	1215	1.5'	C	1	X	X	X		HCL: HC HNO ₃ : HN
FS29	S	1.5.23	1025	1.5'	C	1	X	X	X		H ₂ SO ₄ : H ₂ NaOH: Na
FS30	S	1.5.23	1030	1.5'	C	1	X	X	X		H ₃ PO ₄ : HP
FS32	S	1.6.23	1220	1.5'	C	1	X	X	X		NaHSO ₄ : NABIS
FS33	S	1.5.23	1055	1.5'	C	1	X	X	X		Na ₂ S ₂ O ₃ : NaSO ₃
FS34	S	1.5.23	1225	1.5'	C	1	X	X	X		Zn Acetate+NaOH: Zn
FS35	S	1.6.23	1240	1.5'	C	1	X	X	X		NaOH+Ascorbic Acid: SASC
FS36	S	1.6.23	1245	1.5'	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 Mo Ni K Se Ag SiO₂ 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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El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No:

www.xenco.com Page 5 of 5

of W

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield 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:		Oxy State F-1		Turn Around				Preservative Codes	
Project Number:		03D2057051		☒ Routine ☐ Rush				None: NO DI Water: H ₂ O	
Project Location:		Lea County, NM		Due Date:				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:		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	
Parameters						Pres. Code			
015)									
les									
8021)									

[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 Zr
TCPLP/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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Revised Date 08/25/2020 Rev. 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3797-1

SDG Number: Lea County NM

Login Number: 3797**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: 890-3797-1

SDG Number: Lea County NM

Login Number: 3797**List Number: 2****Creator: Teel, Brianna****List Source: Eurofins Midland****List Creation: 01/11/23 11:43 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
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- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/13/2023 7:33:02 PM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER 03D205705

JOB NUMBER

890-4044-1

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 7:33:02 PM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-4044-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
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
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: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

Job ID: 890-4044-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4044-1****Receipt**

The sample was received on 2/7/2023 1:28 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS02 (890-4044-1).

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: Surrogate recovery for the following samples were outside control limits: SS02 (890-4044-1), (890-4049-A-1-B), (890-4049-A-1-C MS) and (890-4049-A-1-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: LCS biased low. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-45928/2-A)

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 880-45928 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

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45902 and analytical batch 880-45920 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: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

Client Sample ID: SS02

Lab Sample ID: 890-4044-1

Date Collected: 02/07/23 12:05

Matrix: Solid

Date Received: 02/07/23 13:28

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		02/10/23 14:34	02/12/23 23:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 23:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 23:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 14:34	02/12/23 23:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:34	02/12/23 23:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 14:34	02/12/23 23:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	02/10/23 14:34	02/12/23 23:10	1
1,4-Difluorobenzene (Surr)	111		70 - 130	02/10/23 14:34	02/12/23 23:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			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 *- *1	49.9	mg/Kg		02/09/23 17:25	02/12/23 20:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U *- *1	49.9	mg/Kg		02/09/23 17:25	02/12/23 20:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:25	02/12/23 20:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	2	S1-	70 - 130	02/09/23 17:25	02/12/23 20:37	1
o-Terphenyl	0.4	S1-	70 - 130	02/09/23 17:25	02/12/23 20:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.7		5.00	mg/Kg			02/09/23 18:19	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

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-A-1-B MS	Matrix Spike	109	99
890-4035-A-1-C MSD	Matrix Spike Duplicate	108	96
890-4044-1	SS02	124	111
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)
890-4044-1	SS02	2 S1-	0.4 S1-
890-4049-A-1-C MS	Matrix Spike	2 S1-	0.4 S1-
890-4049-A-1-D MSD	Matrix Spike Duplicate	2 S1-	0.6 S1-
LCS 880-45928/2-A	Lab Control Sample	81	83
LCSD 880-45928/3-A	Lab Control Sample Dup	93	100
MB 880-45928/1-A	Method Blank	87	105
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

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	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-A-1-B MS

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike

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: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

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

Lab Sample ID: 890-4035-A-1-B MS

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike

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-A-1-C MSD

Matrix: Solid

Analysis Batch: 46074

Client Sample ID: Matrix Spike Duplicate

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 880-45928/1-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45928

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 17:25	02/12/23 09:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:25	02/12/23 09:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:25	02/12/23 09:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	02/09/23 17:25	02/12/23 09:21	1
o-Terphenyl	105		70 - 130	02/09/23 17:25	02/12/23 09:21	1

Lab Sample ID: LCS 880-45928/2-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45928

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	628.6	*-	mg/Kg		63	70 - 130
Diesel Range Organics (Over C10-C28)	1000	649.0	*-	mg/Kg		65	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

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

Lab Sample ID: LCS 880-45928/2-A
Matrix: Solid
Analysis Batch: 46064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45928

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: LCSD 880-45928/3-A
Matrix: Solid
Analysis Batch: 46064

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45928

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	886.7	*1	mg/Kg		89	70 - 130	34	20
Diesel Range Organics (Over C10-C28)	1000	848.7	*1	mg/Kg		85	70 - 130	27	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-4049-A-1-C MS
Matrix: Solid
Analysis Batch: 46064

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45928

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 *- *1	998	<49.9	U F1	mg/Kg		0	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *- *1	998	<49.9	U F1	mg/Kg		0.2	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	2	S1-	70 - 130
o-Terphenyl	0.4	S1-	70 - 130

Lab Sample ID: 890-4049-A-1-D MSD
Matrix: Solid
Analysis Batch: 46064

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45928

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 *- *1	997	<49.9	U F1	mg/Kg		1	70 - 130	NC	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *- *1	997	<49.9	U F1	mg/Kg		0.3	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	2	S1-	70 - 130
o-Terphenyl	0.6	S1-	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45902/1-A

Matrix: Solid

Analysis Batch: 45920

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			02/09/23 17:42	1

Lab Sample ID: LCS 880-45902/2-A

Matrix: Solid

Analysis Batch: 45920

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	232.7		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-45902/3-A

Matrix: Solid

Analysis Batch: 45920

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	232.8		mg/Kg		93	90 - 110	0	20

Lab Sample ID: 890-4043-A-1-B MS

Matrix: Solid

Analysis Batch: 45920

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	<4.98	U F1	249	226.8	F1	mg/Kg		89	90 - 110

Lab Sample ID: 890-4043-A-1-C MSD

Matrix: Solid

Analysis Batch: 45920

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	<4.98	U F1	249	227.7		mg/Kg		90	90 - 110	0	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

GC VOA

Prep Batch: 46011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4044-1	SS02	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-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4035-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4044-1	SS02	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-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46011
890-4035-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46011

Analysis Batch: 46098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4044-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4044-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-45928/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45928/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45928/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4049-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4049-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4044-1	SS02	Total/NA	Solid	8015B NM	45928
MB 880-45928/1-A	Method Blank	Total/NA	Solid	8015B NM	45928
LCS 880-45928/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45928
LCSD 880-45928/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45928
890-4049-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45928
890-4049-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45928

Analysis Batch: 46214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4044-1	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4044-1	SS02	Soluble	Solid	DI Leach	
MB 880-45902/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45902/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45902/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

HPLC/IC (Continued)

Leach Batch: 45902 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4043-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4043-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4044-1	SS02	Soluble	Solid	300.0	45902
MB 880-45902/1-A	Method Blank	Soluble	Solid	300.0	45902
LCS 880-45902/2-A	Lab Control Sample	Soluble	Solid	300.0	45902
LCSD 880-45902/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45902
890-4043-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45902
890-4043-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45902

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

Client Sample ID: SS02
Date Collected: 02/07/23 12:05
Date Received: 02/07/23 13:28

Lab Sample ID: 890-4044-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	46011	02/10/23 14:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46074	02/12/23 23:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46098	02/13/23 09:13	MNR	EET MID
Total/NA	Analysis	8015 NM		1			46214	02/13/23 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45928	02/09/23 17:25	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46064	02/12/23 20:37	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 18:19	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: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

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: OXY STATE F-1

Job ID: 890-4044-1
SDG: 03D205705

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4044-1	SS02	Solid	02/07/23 12:05	02/07/23 13:28	0.2

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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

Chain of Custody

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, jtalcomata@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:	OKstate F-1	Turn Around	
Project Number:	03B2005705	☒ Routine ☐ Rush	
Project Location:	37501B, -10B, 22639	Due Date:	
Sampler's Name:	Juliana Falcomata	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			
SAMPLE RECEIPT	Temp Blank:	☒ Yes ☐ No	Wet Ice:
Samples Received Intact:	☒ Yes ☐ No	Thermometer ID:	112005
Cooler Custody Seals:	Yes ☐ No ☐ N/A	Correction Factor:	-0.0
Sample Custody Seals:	Yes ☐ No ☒ N/A	Temperature Reading:	2.0
Total Containers:		Corrected Temperature:	1.8
Parameters		Pres. Code	
RIDES (EPA: 300.0)			
015)			
8021			
ANALYSIS REQUEST			
			
890-4044 Chain of Custody			
Preservative Codes			
None: NO	DI Water: H ₂ O		
Cool: Cool	MeOH: Me		
HCL: HC	HNO ₃ : HN		
H ₂ SO ₄ : H ₂	NaOH: Na		
H ₃ PO ₄ : HP			
NaHSO ₄ : NABIS			
Na ₂ S ₂ O ₃ : NASO ₃			
Zn Acetate+NaOH: Zn			
NaOH+Ascorbic Acid: SASC			

[illegible]

Total	200.7 / 6010	200.8, 6020:
Circle Method(s) and Metal(s) to be analyzed	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 Zr
	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 with 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 with Eurofins Xenco.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		2-7-23 1328			

Revised Form 6026-07-01 Rev. 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4044-1

SDG Number: 03D205705

Login Number: 4044

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: 890-4044-1

SDG Number: 03D205705

Login Number: 4044

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/09/23 12:36 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

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- 2
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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/5/2023 12:28:00 PM

JOB DESCRIPTION

OXY STATE F-1
SDG NUMBER 03D2057051

JOB NUMBER

890-3717-1

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
1/5/2023 12:28:00 PM

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

Client: Ensolum
Project/Site: OXY STATE F-1

Laboratory Job ID: 890-3717-1
SDG: 03D2057051

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: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

Job ID: 890-3717-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-3717-1
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Receipt

The sample was received on 12/27/2022 1:34 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 1.2°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: FS28 (890-3717-1).

GC VOA

Method 8021B: 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 880-42898 and analytical batch 880-42933. The associated laboratory control sample (LCS) met acceptance criteria.

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

GC Semi VOA

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.

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

Client Sample ID: FS28

Lab Sample ID: 890-3717-1

Date Collected: 12/21/22 13:25

Matrix: Solid

Date Received: 12/27/22 13:34

Sample Depth: 12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/29/22 13:35	12/31/22 20:47	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/29/22 13:35	12/31/22 20:47	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/29/22 13:35	12/31/22 20:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/29/22 13:35	12/31/22 20:47	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/29/22 13:35	12/31/22 20:47	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/29/22 13:35	12/31/22 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	12/29/22 13:35	12/31/22 20:47	1
1,4-Difluorobenzene (Surr)	111		70 - 130	12/29/22 13:35	12/31/22 20:47	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			01/03/23 09:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	592		50.0	mg/Kg			01/05/23 12:50	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		01/04/23 11:55	01/05/23 03:01	1
Diesel Range Organics (Over C10-C28)	499		50.0	mg/Kg		01/04/23 11:55	01/05/23 03:01	1
Oil Range Organics (Over C28-C36)	93.3		50.0	mg/Kg		01/04/23 11:55	01/05/23 03:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130			01/04/23 11:55	01/05/23 03:01	1
o-Terphenyl	125		70 - 130			01/04/23 11:55	01/05/23 03:01	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	421		4.96	mg/Kg			12/31/22 03:33	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

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)
880-23052-A-81-B MS	Matrix Spike	99	110
880-23052-A-81-C MSD	Matrix Spike Duplicate	102	111
890-3717-1	FS28	108	111
LCS 880-42898/1-A	Lab Control Sample	98	108
LCSD 880-42898/2-A	Lab Control Sample Dup	97	110
MB 880-42894/5-A	Method Blank	94	104
MB 880-42898/5-A	Method Blank	94	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)
880-23272-A-1-F MS	Matrix Spike	107	103
880-23272-A-1-G MSD	Matrix Spike Duplicate	109	106
890-3717-1	FS28	130	125
LCS 880-43158/2-A	Lab Control Sample	87	87
LCSD 880-43158/3-A	Lab Control Sample Dup	88	89
MB 880-43158/1-A	Method Blank	109	123
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-42894/5-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42894

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:11	12/31/22 01:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/29/22 13:11	12/31/22 01:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	12/29/22 13:11	12/31/22 01:40	1
1,4-Difluorobenzene (Surr)	104		70 - 130	12/29/22 13:11	12/31/22 01:40	1

Lab Sample ID: MB 880-42898/5-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 42898

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/29/22 13:35	12/31/22 13:19	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/29/22 13:35	12/31/22 13:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	12/29/22 13:35	12/31/22 13:19	1
1,4-Difluorobenzene (Surr)	108		70 - 130	12/29/22 13:35	12/31/22 13:19	1

Lab Sample ID: LCS 880-42898/1-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1101		mg/Kg		110	70 - 130
Toluene	0.100	0.09919		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09418		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1909		mg/Kg		95	70 - 130
o-Xylene	0.100	0.09308		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-42898/2-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09527		mg/Kg		95	70 - 130	14	35

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

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

Lab Sample ID: LCSD 880-42898/2-A

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08669		mg/Kg		87	70 - 130	13	35
Ethylbenzene	0.100	0.08293		mg/Kg		83	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.1683		mg/Kg		84	70 - 130	13	35
o-Xylene	0.100	0.08294		mg/Kg		83	70 - 130	12	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 880-23052-A-81-B MS

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130
Toluene	<0.00202	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130
Ethylbenzene	<0.00202	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.198	<0.00396	U F1	mg/Kg		0	70 - 130
o-Xylene	<0.00202	U F1	0.0990	<0.00198	U F1	mg/Kg		0.4	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 880-23052-A-81-C MSD

Matrix: Solid

Analysis Batch: 42933

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 42898

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.0992	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	<0.00202	U F1	0.0992	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00202	U F1	0.0992	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00403	U F1	0.198	<0.00397	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00202	U F1	0.0992	<0.00198	U F1	mg/Kg		0.4	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

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

Lab Sample ID: MB 880-43158/1-A

Matrix: Solid

Analysis Batch: 43110

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43158

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		01/04/23 11:55	01/04/23 20:37	1

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

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

Lab Sample ID: MB 880-43158/1-A

Matrix: Solid

Analysis Batch: 43110

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43158

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		01/04/23 11:55	01/04/23 20:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/04/23 11:55	01/04/23 20:37	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			01/04/23 11:55	01/04/23 20:37	1
o-Terphenyl	123		70 - 130			01/04/23 11:55	01/04/23 20:37	1

Lab Sample ID: LCS 880-43158/2-A

Matrix: Solid

Analysis Batch: 43110

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43158

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	819.5		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	1000	853.8		mg/Kg		85	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	87		70 - 130				
o-Terphenyl	87		70 - 130				

Lab Sample ID: LCSD 880-43158/3-A

Matrix: Solid

Analysis Batch: 43110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43158

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	813.3		mg/Kg		81	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	844.6		mg/Kg		84	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	88		70 - 130						
o-Terphenyl	89		70 - 130						

Lab Sample ID: 880-23272-A-1-F MS

Matrix: Solid

Analysis Batch: 43110

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43158

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	936.3		mg/Kg		91	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1134		mg/Kg		111	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	107		70 - 130						
o-Terphenyl	103		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

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

Lab Sample ID: 880-23272-A-1-G MSD

Matrix: Solid

Analysis Batch: 43110

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43158

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	932.2		mg/Kg		90	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1153		mg/Kg		112	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	109		70 - 130								
o-Terphenyl	106		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-42868/1-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/31/22 02:51	1

Lab Sample ID: LCS 880-42868/2-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	263.9		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-42868/3-A

Matrix: Solid

Analysis Batch: 42948

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	256.2		mg/Kg		102	90 - 110	3	20

Lab Sample ID: 890-3713-A-1-B MS

Matrix: Solid

Analysis Batch: 42948

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	<5.05	U	253	266.0		mg/Kg		105	90 - 110

Lab Sample ID: 890-3713-A-1-C MSD

Matrix: Solid

Analysis Batch: 42948

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	<5.05	U	253	258.4		mg/Kg		102	90 - 110	3	20

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

GC VOA

Prep Batch: 42894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-42894/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 42898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3717-1	FS28	Total/NA	Solid	5035	
MB 880-42898/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-42898/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-42898/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-23052-A-81-B MS	Matrix Spike	Total/NA	Solid	5035	
880-23052-A-81-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 42933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3717-1	FS28	Total/NA	Solid	8021B	42898
MB 880-42894/5-A	Method Blank	Total/NA	Solid	8021B	42894
MB 880-42898/5-A	Method Blank	Total/NA	Solid	8021B	42898
LCS 880-42898/1-A	Lab Control Sample	Total/NA	Solid	8021B	42898
LCSD 880-42898/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	42898
880-23052-A-81-B MS	Matrix Spike	Total/NA	Solid	8021B	42898
880-23052-A-81-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	42898

Analysis Batch: 43058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3717-1	FS28	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 43110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3717-1	FS28	Total/NA	Solid	8015B NM	43158
MB 880-43158/1-A	Method Blank	Total/NA	Solid	8015B NM	43158
LCS 880-43158/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43158
LCSD 880-43158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43158
880-23272-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	43158
880-23272-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43158

Prep Batch: 43158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3717-1	FS28	Total/NA	Solid	8015NM Prep	
MB 880-43158/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43158/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23272-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23272-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3717-1	FS28	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

HPLC/IC

Leach Batch: 42868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3717-1	FS28	Soluble	Solid	DI Leach	
MB 880-42868/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-42868/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-42868/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3713-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3713-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 42948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3717-1	FS28	Soluble	Solid	300.0	42868
MB 880-42868/1-A	Method Blank	Soluble	Solid	300.0	42868
LCS 880-42868/2-A	Lab Control Sample	Soluble	Solid	300.0	42868
LCSD 880-42868/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	42868
890-3713-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	42868
890-3713-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	42868

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

Client Sample ID: FS28
Date Collected: 12/21/22 13:25
Date Received: 12/27/22 13:34

Lab Sample ID: 890-3717-1
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	42898	12/29/22 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	42933	12/31/22 20:47	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			43058	01/03/23 09:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43263	01/05/23 12:50	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43158	01/04/23 11:55	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43110	01/05/23 03:01	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	42868	12/29/22 10:52	KS	EET MID
Soluble	Analysis	300.0		1			42948	12/31/22 03:33	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: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

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: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: OXY STATE F-1

Job ID: 890-3717-1
SDG: 03D2057051

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3717-1	FS28	Solid	12/21/22 13:25	12/27/22 13:34	12

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



Environment Testing

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

Chain of Custody

Work Order No:

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Page 10

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	3122 Nat'l Parks Highway	Address:	3122 Nat'l Parks Highway
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	kjennings@ensolum.com

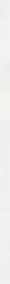
Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐	
State of Project: NM	
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other: _____	

Project Name:		OXY STATE F-1		Turn Around		Pres. Code		ANALYSIS REQUEST										Preservative Codes											
Project Number:		03D2057051		☒ Routine ☐ Rush														None: NO											
Project Location:		32.379909, -103.198780		Due Date:														Cool: Cool											
Sampler's Name:		Julianna Falcomata		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC											
PO #:																		H ₂ SO ₄ : H ₂											
SAMPLE RECEIPT		Temp Blank:		☒ Yes ☐ No		Wet Ice:		☒ Yes ☐ No												H ₃ PO ₄ : HP									
Samples Received Intact		☒ Yes ☐ No		Thermometer ID:		17W007												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:		1.4										Zn Acetate+NaOH: Zn									
Total Containers:				Corrected Temperature:		1.2												NaOH+Ascorbic Acid: SAPC											

[illegible]

Circle Method(s) and Metal(s) to be analyzed		200.8 / 602.0:		200.7 / 6010	
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	Il
			Sn	U	V
			Zr		
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 Xeno. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno 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 Xeno, a minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Refiniquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		10-27-2013			

Revised Date: 08/25/2020 Rev. 202

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3717-1

SDG Number: 03D2057051

Login Number: 3717

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: 890-3717-1

SDG Number: 03D2057051

Login Number: 3717

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 12/29/22 11:42 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
- 4
- 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 2/13/2023 7:38:01 PM

JOB DESCRIPTION

OXY STATE F-2
SDG NUMBER 03D205705

JOB NUMBER

890-4049-1

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 7:38:01 PM

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

Client: Ensolum
Project/Site: OXY STATE F-2

Laboratory Job ID: 890-4049-1
SDG: 03D205705

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	18
Certification Summary	20
Method Summary	21
Sample Summary	22
Chain of Custody	23
Receipt Checklists	24

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

Definitions/Glossary

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
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
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: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Job ID: 890-4049-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-4049-1****Receipt**

The samples were received on 2/7/2023 1:28 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 1.8°C

Receipt Exceptions

The following were received and analyzed from an unpreserved bulk soil jar: PH03A (890-4049-1), PH03E (890-4049-2), PH04A (890-4049-3), PH04E (890-4049-4), PH05A (890-4049-5) and PH05E (890-4049-6).

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC):
890-4049 JAR states PH01A @1' 08:55 2-7-23 COC states PH03A@1' 08:55 2-7-23 BASED OFF THE DEPTH, TIME AND DATE THESE ARE THE SAME SAMPLES

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-46016 and analytical batch 880-46059 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

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH03A (890-4049-1), PH03E (890-4049-2), PH04A (890-4049-3), PH04E (890-4049-4), PH05A (890-4049-5), PH05E (890-4049-6), (890-4049-A-1-C MS) and (890-4049-A-1-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: LCS biased low. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-45928/2-A)

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 880-45928 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

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45902 and analytical batch 880-45920 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: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Client Sample ID: PH03A

Lab Sample ID: 890-4049-1

Date Collected: 02/07/23 08:55

Matrix: Solid

Date Received: 02/07/23 13:28

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		02/10/23 14:55	02/11/23 17:25	1
Toluene	<0.00199	U *	0.00199	mg/Kg		02/10/23 14:55	02/11/23 17:25	1
Ethylbenzene	<0.00199	U *	0.00199	mg/Kg		02/10/23 14:55	02/11/23 17:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 14:55	02/11/23 17:25	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:55	02/11/23 17:25	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 14:55	02/11/23 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	02/10/23 14:55	02/11/23 17:25	1
1,4-Difluorobenzene (Surr)	91		70 - 130	02/10/23 14:55	02/11/23 17:25	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			02/13/23 19:39	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			02/13/23 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	<50.0	U F1 *- *1	50.0	mg/Kg		02/09/23 17:25	02/12/23 12:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *- *1	50.0	mg/Kg		02/09/23 17:25	02/12/23 12:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:25	02/12/23 12:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	2	S1-	70 - 130	02/09/23 17:25	02/12/23 12:39	1
o-Terphenyl	0.6	S1-	70 - 130	02/09/23 17:25	02/12/23 12:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.9		5.00	mg/Kg			02/09/23 18:37	1

Client Sample ID: PH03E

Lab Sample ID: 890-4049-2

Date Collected: 02/07/23 09:15

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 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		02/10/23 14:55	02/11/23 17:45	1
Toluene	<0.00199	U *	0.00199	mg/Kg		02/10/23 14:55	02/11/23 17:45	1
Ethylbenzene	<0.00199	U *	0.00199	mg/Kg		02/10/23 14:55	02/11/23 17:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 14:55	02/11/23 17:45	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:55	02/11/23 17:45	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 14:55	02/11/23 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	02/10/23 14:55	02/11/23 17:45	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Client Sample ID: PH03E

Lab Sample ID: 890-4049-2

Date Collected: 02/07/23 09:15

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107		70 - 130	02/10/23 14:55	02/11/23 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			02/13/23 19:39	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			02/13/23 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 *- *1	49.9	mg/Kg		02/09/23 17:25	02/12/23 13:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U *- *1	49.9	mg/Kg		02/09/23 17:25	02/12/23 13:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:25	02/12/23 13:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	2	S1-	70 - 130			02/09/23 17:25	02/12/23 13:44	1
o-Terphenyl	0.5	S1-	70 - 130			02/09/23 17:25	02/12/23 13:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	174		4.97	mg/Kg			02/09/23 18:56	1

Client Sample ID: PH04A

Lab Sample ID: 890-4049-3

Date Collected: 02/07/23 09:45

Matrix: Solid

Date Received: 02/07/23 13:28

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		02/10/23 14:55	02/11/23 18:05	1
Toluene	<0.00200	U *-	0.00200	mg/Kg		02/10/23 14:55	02/11/23 18:05	1
Ethylbenzene	<0.00200	U *-	0.00200	mg/Kg		02/10/23 14:55	02/11/23 18:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/10/23 14:55	02/11/23 18:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 18:05	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/10/23 14:55	02/11/23 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	02/10/23 14:55	02/11/23 18:05	1
1,4-Difluorobenzene (Surr)	108		70 - 130	02/10/23 14:55	02/11/23 18:05	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 19:39	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			02/13/23 17:59	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Client Sample ID: PH04A

Lab Sample ID: 890-4049-3

Date Collected: 02/07/23 09:45

Matrix: Solid

Date Received: 02/07/23 13:28

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 *- *1	50.0	mg/Kg		02/09/23 17:25	02/12/23 14:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U *- *1	50.0	mg/Kg		02/09/23 17:25	02/12/23 14:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:25	02/12/23 14:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	11	S1-	70 - 130			02/09/23 17:25	02/12/23 14:06	1
o-Terphenyl	6	S1-	70 - 130			02/09/23 17:25	02/12/23 14:06	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.5		4.99	mg/Kg			02/09/23 19:02	1

Client Sample ID: PH04E

Lab Sample ID: 890-4049-4

Date Collected: 02/07/23 10:10

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 5

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		02/10/23 14:55	02/11/23 18:26	1
Toluene	<0.00201	U *-	0.00201	mg/Kg		02/10/23 14:55	02/11/23 18:26	1
Ethylbenzene	<0.00201	U *-	0.00201	mg/Kg		02/10/23 14:55	02/11/23 18:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/10/23 14:55	02/11/23 18:26	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/10/23 14:55	02/11/23 18:26	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/10/23 14:55	02/11/23 18:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130			02/10/23 14:55	02/11/23 18:26	1
1,4-Difluorobenzene (Surr)	109		70 - 130			02/10/23 14:55	02/11/23 18:26	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			02/13/23 19:39	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			02/13/23 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	<50.0	U *- *1	50.0	mg/Kg		02/09/23 17:25	02/12/23 14:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U *- *1	50.0	mg/Kg		02/09/23 17:25	02/12/23 14:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:25	02/12/23 14:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	3	S1-	70 - 130			02/09/23 17:25	02/12/23 14:28	1
o-Terphenyl	0.6	S1-	70 - 130			02/09/23 17:25	02/12/23 14:28	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Client Sample ID: PH04E

Lab Sample ID: 890-4049-4

Date Collected: 02/07/23 10:10

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	354		5.02	mg/Kg			02/09/23 19:08	1

Client Sample ID: PH05A

Lab Sample ID: 890-4049-5

Date Collected: 02/07/23 10:35

Matrix: Solid

Date Received: 02/07/23 13:28

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		02/10/23 14:55	02/11/23 18:46	1
Toluene	<0.00200	U *	0.00200	mg/Kg		02/10/23 14:55	02/11/23 18:46	1
Ethylbenzene	<0.00200	U *	0.00200	mg/Kg		02/10/23 14:55	02/11/23 18:46	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/10/23 14:55	02/11/23 18:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 18:46	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/10/23 14:55	02/11/23 18:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			02/10/23 14:55	02/11/23 18:46	1
1,4-Difluorobenzene (Surr)	105		70 - 130			02/10/23 14:55	02/11/23 18:46	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			02/13/23 19:39	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			02/13/23 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 *- *1	49.9	mg/Kg		02/09/23 17:25	02/12/23 14:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U *- *1	49.9	mg/Kg		02/09/23 17:25	02/12/23 14:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:25	02/12/23 14:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	1	S1-	70 - 130			02/09/23 17:25	02/12/23 14:49	1
o-Terphenyl	0.5	S1-	70 - 130			02/09/23 17:25	02/12/23 14:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.6		4.95	mg/Kg			02/09/23 19:14	1

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Client Sample Results

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Client Sample ID: PH05E

Lab Sample ID: 890-4049-6

Date Collected: 02/07/23 10:55

Matrix: Solid

Date Received: 02/07/23 13:28

Sample Depth: 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		02/10/23 14:55	02/11/23 19:06	1
Toluene	<0.00199	U *	0.00199	mg/Kg		02/10/23 14:55	02/11/23 19:06	1
Ethylbenzene	<0.00199	U *	0.00199	mg/Kg		02/10/23 14:55	02/11/23 19:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/10/23 14:55	02/11/23 19:06	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/10/23 14:55	02/11/23 19:06	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/10/23 14:55	02/11/23 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	02/10/23 14:55	02/11/23 19:06	1
1,4-Difluorobenzene (Surr)	108		70 - 130	02/10/23 14:55	02/11/23 19:06	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			02/13/23 19:39	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			02/13/23 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 * *1	49.9	mg/Kg		02/09/23 17:25	02/12/23 15:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U * *1	49.9	mg/Kg		02/09/23 17:25	02/12/23 15:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 17:25	02/12/23 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	3	S1-	70 - 130	02/09/23 17:25	02/12/23 15:12	1
o-Terphenyl	0.7	S1-	70 - 130	02/09/23 17:25	02/12/23 15:12	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.9		5.01	mg/Kg			02/09/23 19:20	1

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Surrogate Summary

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

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)
890-4047-A-1-C MS	Matrix Spike	113	112
890-4047-A-1-D MSD	Matrix Spike Duplicate	109	112
890-4049-1	PH03A	114	91
890-4049-2	PH03E	125	107
890-4049-3	PH04A	124	108
890-4049-4	PH04E	127	109
890-4049-5	PH05A	123	105
890-4049-6	PH05E	118	108
LCS 880-46016/1-A	Lab Control Sample	108	110
LCSD 880-46016/2-A	Lab Control Sample Dup	114	110
MB 880-46016/5-A	Method Blank	111	105
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)
890-4049-1	PH03A	2 S1-	0.6 S1-
890-4049-1 MS	PH03A	2 S1-	0.4 S1-
890-4049-1 MSD	PH03A	2 S1-	0.6 S1-
890-4049-2	PH03E	2 S1-	0.5 S1-
890-4049-3	PH04A	11 S1-	6 S1-
890-4049-4	PH04E	3 S1-	0.6 S1-
890-4049-5	PH05A	1 S1-	0.5 S1-
890-4049-6	PH05E	3 S1-	0.7 S1-
LCS 880-45928/2-A	Lab Control Sample	81	83
LCSD 880-45928/3-A	Lab Control Sample Dup	93	100
MB 880-45928/1-A	Method Blank	87	105
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46016/5-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46016

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 14:55	02/11/23 16:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	02/10/23 14:55	02/11/23 16:15	1
1,4-Difluorobenzene (Surr)	105		70 - 130	02/10/23 14:55	02/11/23 16:15	1

Lab Sample ID: LCS 880-46016/1-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07008		mg/Kg		70	70 - 130
Toluene	0.100	0.06866	*-	mg/Kg		69	70 - 130
Ethylbenzene	0.100	0.06746	*-	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	0.200	0.1444		mg/Kg		72	70 - 130
o-Xylene	0.100	0.07197		mg/Kg		72	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-46016/2-A

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07747		mg/Kg		77	70 - 130	10	35
Toluene	0.100	0.07237		mg/Kg		72	70 - 130	5	35
Ethylbenzene	0.100	0.07187		mg/Kg		72	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1528		mg/Kg		76	70 - 130	6	35
o-Xylene	0.100	0.07577		mg/Kg		76	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-4047-A-1-C MS

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.0990	0.1079		mg/Kg		109	70 - 130
Toluene	<0.00201	U *-	0.0990	0.1062		mg/Kg		107	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

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

Lab Sample ID: 890-4047-A-1-C MS

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U *-	0.0990	0.1065		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.198	0.2259		mg/Kg		114	70 - 130
o-Xylene	<0.00201	U	0.0990	0.1081		mg/Kg		109	70 - 130

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

Lab Sample ID: 890-4047-A-1-D MSD

Matrix: Solid

Analysis Batch: 46059

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.1140		mg/Kg		114	70 - 130	6	35
Toluene	<0.00201	U *-	0.0998	0.1074		mg/Kg		108	70 - 130	1	35
Ethylbenzene	<0.00201	U *-	0.0998	0.1067		mg/Kg		107	70 - 130	0	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2247		mg/Kg		113	70 - 130	1	35
o-Xylene	<0.00201	U	0.0998	0.1069		mg/Kg		107	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

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

Lab Sample ID: MB 880-45928/1-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45928

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 17:25	02/12/23 09:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/09/23 17:25	02/12/23 09:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 17:25	02/12/23 09:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	02/09/23 17:25	02/12/23 09:21	1
o-Terphenyl	105		70 - 130	02/09/23 17:25	02/12/23 09:21	1

Lab Sample ID: LCS 880-45928/2-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45928

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	628.6	*-	mg/Kg		63	70 - 130
Diesel Range Organics (Over C10-C28)	1000	649.0	*-	mg/Kg		65	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

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

Lab Sample ID: LCS 880-45928/2-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 45928

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: LCSD 880-45928/3-A

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 45928

			Spike	LCSD	LCSD				%Rec		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	886.7	*1	mg/Kg		89	70 - 130	34	20	
Diesel Range Organics (Over C10-C28)			1000	848.7	*1	mg/Kg		85	70 - 130	27	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-4049-1 MS

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: PH03A

Prep Type: Total/NA

Prep Batch: 45928

	Sample	Sample	Spike	MS	MS				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 *- *1	998	<49.9	U F1	mg/Kg		0	70 - 130			
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *- *1	998	<49.9	U F1	mg/Kg		0.2	70 - 130			

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	2	S1-	70 - 130
o-Terphenyl	0.4	S1-	70 - 130

Lab Sample ID: 890-4049-1 MSD

Matrix: Solid

Analysis Batch: 46064

Client Sample ID: PH03A

Prep Type: Total/NA

Prep Batch: 45928

	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 F1 *- *1	997	<49.9	U F1	mg/Kg		1	70 - 130	NC	20	
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *- *1	997	<49.9	U F1	mg/Kg		0.3	70 - 130	3	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	2	S1-	70 - 130
o-Terphenyl	0.6	S1-	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45902/1-A

Matrix: Solid

Analysis Batch: 45920

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			02/09/23 17:42	1

Lab Sample ID: LCS 880-45902/2-A

Matrix: Solid

Analysis Batch: 45920

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	232.7		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-45902/3-A

Matrix: Solid

Analysis Batch: 45920

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	232.8		mg/Kg		93	90 - 110	0	20

Lab Sample ID: 890-4043-A-1-B MS

Matrix: Solid

Analysis Batch: 45920

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	<4.98	U F1	249	226.8	F1	mg/Kg		89	90 - 110

Lab Sample ID: 890-4043-A-1-C MSD

Matrix: Solid

Analysis Batch: 45920

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	<4.98	U F1	249	227.7		mg/Kg		90	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

GC VOA

Prep Batch: 46016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4049-1	PH03A	Total/NA	Solid	5035	
890-4049-2	PH03E	Total/NA	Solid	5035	
890-4049-3	PH04A	Total/NA	Solid	5035	
890-4049-4	PH04E	Total/NA	Solid	5035	
890-4049-5	PH05A	Total/NA	Solid	5035	
890-4049-6	PH05E	Total/NA	Solid	5035	
MB 880-46016/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46016/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46016/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4047-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-4047-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4049-1	PH03A	Total/NA	Solid	8021B	46016
890-4049-2	PH03E	Total/NA	Solid	8021B	46016
890-4049-3	PH04A	Total/NA	Solid	8021B	46016
890-4049-4	PH04E	Total/NA	Solid	8021B	46016
890-4049-5	PH05A	Total/NA	Solid	8021B	46016
890-4049-6	PH05E	Total/NA	Solid	8021B	46016
MB 880-46016/5-A	Method Blank	Total/NA	Solid	8021B	46016
LCS 880-46016/1-A	Lab Control Sample	Total/NA	Solid	8021B	46016
LCSD 880-46016/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46016
890-4047-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	46016
890-4047-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46016

Analysis Batch: 46243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4049-1	PH03A	Total/NA	Solid	Total BTEX	
890-4049-2	PH03E	Total/NA	Solid	Total BTEX	
890-4049-3	PH04A	Total/NA	Solid	Total BTEX	
890-4049-4	PH04E	Total/NA	Solid	Total BTEX	
890-4049-5	PH05A	Total/NA	Solid	Total BTEX	
890-4049-6	PH05E	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4049-1	PH03A	Total/NA	Solid	8015NM Prep	
890-4049-2	PH03E	Total/NA	Solid	8015NM Prep	
890-4049-3	PH04A	Total/NA	Solid	8015NM Prep	
890-4049-4	PH04E	Total/NA	Solid	8015NM Prep	
890-4049-5	PH05A	Total/NA	Solid	8015NM Prep	
890-4049-6	PH05E	Total/NA	Solid	8015NM Prep	
MB 880-45928/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45928/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45928/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4049-1 MS	PH03A	Total/NA	Solid	8015NM Prep	
890-4049-1 MSD	PH03A	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

GC Semi VOA

Analysis Batch: 46064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4049-1	PH03A	Total/NA	Solid	8015B NM	45928
890-4049-2	PH03E	Total/NA	Solid	8015B NM	45928
890-4049-3	PH04A	Total/NA	Solid	8015B NM	45928
890-4049-4	PH04E	Total/NA	Solid	8015B NM	45928
890-4049-5	PH05A	Total/NA	Solid	8015B NM	45928
890-4049-6	PH05E	Total/NA	Solid	8015B NM	45928
MB 880-45928/1-A	Method Blank	Total/NA	Solid	8015B NM	45928
LCS 880-45928/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45928
LCSD 880-45928/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45928
890-4049-1 MS	PH03A	Total/NA	Solid	8015B NM	45928
890-4049-1 MSD	PH03A	Total/NA	Solid	8015B NM	45928

Analysis Batch: 46210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4049-1	PH03A	Total/NA	Solid	8015 NM	
890-4049-2	PH03E	Total/NA	Solid	8015 NM	
890-4049-3	PH04A	Total/NA	Solid	8015 NM	
890-4049-4	PH04E	Total/NA	Solid	8015 NM	
890-4049-5	PH05A	Total/NA	Solid	8015 NM	
890-4049-6	PH05E	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4049-1	PH03A	Soluble	Solid	DI Leach	
890-4049-2	PH03E	Soluble	Solid	DI Leach	
890-4049-3	PH04A	Soluble	Solid	DI Leach	
890-4049-4	PH04E	Soluble	Solid	DI Leach	
890-4049-5	PH05A	Soluble	Solid	DI Leach	
890-4049-6	PH05E	Soluble	Solid	DI Leach	
MB 880-45902/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45902/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45902/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4043-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4043-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4049-1	PH03A	Soluble	Solid	300.0	45902
890-4049-2	PH03E	Soluble	Solid	300.0	45902
890-4049-3	PH04A	Soluble	Solid	300.0	45902
890-4049-4	PH04E	Soluble	Solid	300.0	45902
890-4049-5	PH05A	Soluble	Solid	300.0	45902
890-4049-6	PH05E	Soluble	Solid	300.0	45902
MB 880-45902/1-A	Method Blank	Soluble	Solid	300.0	45902
LCS 880-45902/2-A	Lab Control Sample	Soluble	Solid	300.0	45902
LCSD 880-45902/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45902
890-4043-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45902
890-4043-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45902

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Client Sample ID: PH03A

Lab Sample ID: 890-4049-1

Date Collected: 02/07/23 08:55

Matrix: Solid

Date Received: 02/07/23 13:28

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	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/11/23 17:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46243	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46210	02/13/23 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45928	02/09/23 17:25	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46064	02/12/23 12:39	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 18:37	CH	EET MID

Client Sample ID: PH03E

Lab Sample ID: 890-4049-2

Date Collected: 02/07/23 09:15

Matrix: Solid

Date Received: 02/07/23 13:28

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	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/11/23 17:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46243	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46210	02/13/23 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45928	02/09/23 17:25	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46064	02/12/23 13:44	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 18:56	CH	EET MID

Client Sample ID: PH04A

Lab Sample ID: 890-4049-3

Date Collected: 02/07/23 09:45

Matrix: Solid

Date Received: 02/07/23 13:28

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	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/11/23 18:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46243	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46210	02/13/23 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45928	02/09/23 17:25	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46064	02/12/23 14:06	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 19:02	CH	EET MID

Client Sample ID: PH04E

Lab Sample ID: 890-4049-4

Date Collected: 02/07/23 10:10

Matrix: Solid

Date Received: 02/07/23 13:28

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	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/11/23 18:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46243	02/13/23 19:39	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Client Sample ID: PH04E

Lab Sample ID: 890-4049-4

Date Collected: 02/07/23 10:10

Matrix: Solid

Date Received: 02/07/23 13:28

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			46210	02/13/23 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45928	02/09/23 17:25	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46064	02/12/23 14:28	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 19:08	CH	EET MID

Client Sample ID: PH05A

Lab Sample ID: 890-4049-5

Date Collected: 02/07/23 10:35

Matrix: Solid

Date Received: 02/07/23 13:28

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	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/11/23 18:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46243	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46210	02/13/23 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45928	02/09/23 17:25	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46064	02/12/23 14:49	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 19:14	CH	EET MID

Client Sample ID: PH05E

Lab Sample ID: 890-4049-6

Date Collected: 02/07/23 10:55

Matrix: Solid

Date Received: 02/07/23 13:28

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	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/11/23 19:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46243	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46210	02/13/23 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45928	02/09/23 17:25	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46064	02/12/23 15:12	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	45902	02/09/23 14:14	KS	EET MID
Soluble	Analysis	300.0		1			45920	02/09/23 19:20	CH	EET MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

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: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

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

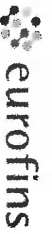
Sample Summary

Client: Ensolum
Project/Site: OXY STATE F-2

Job ID: 890-4049-1
SDG: 03D205705

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4049-1	PH03A	Solid	02/07/23 08:55	02/07/23 13:28	1
890-4049-2	PH03E	Solid	02/07/23 09:15	02/07/23 13:28	5
890-4049-3	PH04A	Solid	02/07/23 09:45	02/07/23 13:28	1
890-4049-4	PH04E	Solid	02/07/23 10:10	02/07/23 13:28	5
890-4049-5	PH05A	Solid	02/07/23 10:35	02/07/23 13:28	1
890-4049-6	PH05E	Solid	02/07/23 10:55	02/07/23 13:28	5

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



Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, jfalcomata@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:	Midland TX-2	Turn Around	☒ Routine ☐ Rush	Pres. Code	
Project Number:	03805705	Due Date:			
Project Location:	325013 - 03-22-039	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Juliana Falcomata				
PO #:					
SAMPLE RECEIPT		Temp Blank:	☒ Yes ☐ No	Wet Ice:	☒ Yes ☐ No
Samples Received Intact:	☒ Yes ☐ No	Thermometer ID:	11111111		
Cooler Custody Seals:	☒ Yes ☐ No	Correction Factor:	-0.2		
Sample Custody Seals:	☒ Yes ☐ No	Temperature Reading:	2.0		
Total Containers:		Corrected Temperature:	1.8		
Parameters					
CHLORIDES (EPA: 300.0)					
TPH (8015)					
BTX (8021)					
ANALYSIS REQUEST					
Preservative Codes					
None: NO DI Water: H ₂ O					
Cool: Cool MeOH: Me					
HCL: HC HNO ₃ : HN					
H ₂ SO ₄ : H ₂ NaOH: Na					
H ₃ PO ₄ : HP					
NaHSO ₄ : NABIS					
Na ₂ S ₂ O ₃ : NaSO ₃					
Zn Acetate+NaOH: Zn					
NaOH+Ascorbic Acid: SAPC					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Sample Comments
PH03A	S	02/07/23	0855	1'	G	1	
PH03E	S	02/07/23	0915	1'	G	1	
PH04A	S	02/07/23	0945	1'	G	1	
PH04E	S	02/07/23	1010	1'	G	1	
PH05A	S	02/07/23	1035	1'	G	1	
PH05E	S	02/07/23	1055	1'	G	1	

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr 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
		02-07-23 1525			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4049-1

SDG Number: 03D205705

Login Number: 4049

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: 890-4049-1

SDG Number: 03D205705

Login Number: 4049

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/09/23 12:36 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	



APPENDIX D

Lithologic Soil Sampling Logs

 ENSOLUM		Sample Name: PH01		Date: 2/6/23				
		Site Name: OXY State F-1						
		Incident Number: NAPP2235375291						
		Job Number: 03E2057051						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.501228, -103.226290			Logged By: Julianna		Method: Mechanical Equipment			
			Hole Diameter: N/A		Total Depth: 5'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Dry	1,276	137.5	Yes		0.2	0		0-1.5': reddish-brown Silty Sand (m.) with some gravel, poorly-graded sand, no plasticity, odor 1.5-4': reddish-brown Clayey Sand (m.), poorly-graded sand, low plasticity, no odor 4'-TD: reddish-brown Silty Sand (m.), poorly-graded sand, no plasticity, no odor
Dry	924	22.5	No	PH01A	1	1	SM	
Dry	773	18.7	No		2	2	SC	
Dry	1,002	16.9	No	PH01C	3	3	SC	
Dry	4,468	12.5	No		4	4	SC	
Dry	3,427	1.9	No	PH01E	5	5	SM	
						Total Depth (TD)		

					Sample Name: PH02		Date: 2/6/23	
					Site Name: OXY State F-1			
					Incident Number: NAPP2235375291			
					Job Number: 03E2057051			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: Julianna		Method: Mechanical Equipment	
Coordinates: 32.501276, -103.226317					Hole Diameter: N/A		Total Depth: 5'	
Comments: Field screening conducted with Low Range HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water; no correction factor included. "BDL" - Below Detection Limit (<168 ppm)								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Dry	BDL	0.1	No	PH02A	1	1	SM	0-2': reddish-brown Silty Sand (m.) with some gravel, poorly-graded sand, no plasticity, no odor 2-3.5': reddish-brown Clayey Sand (m.), poorly-graded sand, low plasticity, no odor 3.5'-TD: reddish-brown Silty Sand (m.), poorly-graded sand, no plasticity, no odor
Dry	BDL	0.6	No		2	2	SM	
Dry	459	0.2	No		3	3	SC	
Dry	BDL	0.2	No		4	4	SM	
Dry	BDL	0	No	PH02E	5	5	SM	
Total Depth (TD)								

					Sample Name: PH03		Date: 2/7/23	
					Site Name: OXY State F-1			
					Incident Number: NAPP2235375291			
					Job Number: 03E2057051			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: Julianna		Method: Mechanical Equipment	
Coordinates: 32.501172, -103.226235					Hole Diameter: N/A		Total Depth: 5'	
Comments: Field screening conducted with Low Range HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water; no correction factor included. "BDL" - Below Detection Limit (<168 ppm)								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
No	BDL	0.2	No	PH03A	1	1	SM	0-1.5': reddish-brown Silty Sand (m.), poorly-graded sand, no plasticity, no odor 1.5'-TD: reddish-brown Clayey Sand (m.), poorly-graded sand, low plasticity, no odor
No	BDL	0.3	No		2	2	SC	
No	246	0.2	No		3	3	SC	
No	582	0.1	No		4	4	SC	
No	246	0	No	PH03E	5	5	SC	
Total Depth (TD)								

					Sample Name: PH04		Date: 2/7/23	
					Site Name: OXY State F-1			
					Incident Number: NAPP2235375291			
					Job Number: 03E2057051			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: Julianna		Method: Mechanical Equipment	
Coordinates: 32.501018, -103.226305					Hole Diameter: N/A		Total Depth: 5'	
Comments: Field screening conducted with Low Range HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water; no correction factor included. "BDL" - Below Detection Limit (<168 ppm)								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
No	BDL	0.2	No	PH04A	1	1	SC	0-3.5': reddish-brown Clayey Sand (m.), poorly-graded sand, low plasticity, no odor 3': SC with some gravel 3.5'-TD: reddish-brown Silty Sand (m.) with some gravel, poorly-graded sand, no plasticity, odor
No	BDL	0.1	No		2	2	SC	
No	448	0	No		3	3	SC	
No	526	0	No		4	4	SM	
No	448	0	No	PH04E	5	5	SM	
Total Depth (TD)								

					Sample Name: PH05		Date: 2/7/23	
					Site Name: OXY State F-1			
					Incident Number: NAPP2235375291			
					Job Number: 03E2057051			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: Julianna		Method: Mechanical Equipment	
Coordinates: 32.501222, -103.226453					Hole Diameter: N/A		Total Depth: 5'	
Comments: Field screening conducted with Low Range HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water; no correction factor included. "BDL" - Below Detection Limit (<168 ppm)								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
No	BDL	0	No	PH05A	1	1	SM	0-3.5': reddish-brown Silty Sand (m.) with some gravel, poorly-graded sand, no plasticity, odor 3.5'-TD: reddish-brown Clayey Sand (m.) poorly-graded sand, low plasticity, no odor
No	582	0	No		2	2	SM	
No	BDL	0	No		3	3	SM	
No	BDL	0	No		4	4	SC	
No	BDL	0	No	PH05E	5	5	SC	
Total Depth (TD)								



APPENDIX E

NMOCD Notifications

From: [Enviro. OCD. EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Nobui. Jennifer. EMNRD](#); [Bratcher. Michael. EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/30/2023)
Date: Monday, January 30, 2023 10:18:04 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

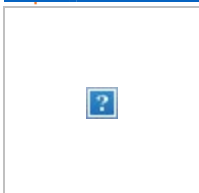
[**EXTERNAL EMAIL**]

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 8:54:04 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

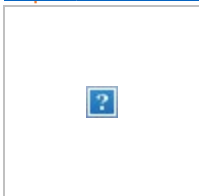
[**EXTERNAL EMAIL**]

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: [Bratcher, Michael, EMNRD](#); [Nobui, Jennifer, EMNRD](#)
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/02/2023)
Date: Friday, December 30, 2022 10:40:40 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

[**EXTERNAL EMAIL**]

Good morning Kalei,

Please be aware that notification requirements are **two business days**, per rule. Please proceed on your schedule. Also, please include this, and all correspondence, in the closure report to insure inclusion in the project file.

Thank you,
Jocelyn

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, December 30, 2022 10:25 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Hadlie Green <hgreen@ensolum.com>; Josh Adams <jadams@ensolum.com>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 01/02/2023)

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 2, 2023.

- Ruby Federal/ NAPP2231448981

- SEMU Eumont 117/ NAPP2231946665
- Oxy State F-1 / NAPP2235375291
- Jalmat 170 / NAPP2233946698
- 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	NAPP2235375291
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) NAPP2235375291
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.50113 Longitude -103.22639
(NAD 83 in decimal degrees to 5 decimal places)

Site Name OXY State F-1	Site Type
Date Release Discovered December 3, 2022	API# (if applicable) 30-025-26802

Unit Letter	Section	Township	Range	County
U	01	21S	36E	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) 118 bbls	Volume Recovered (bbls) 110 bbls
☒ Produced Water	Volume Released (bbls) 236 bbls	Volume Recovered (bbls) 90 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

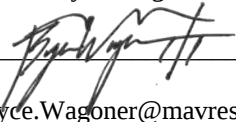
The release was caused by tank overflow. The release occurred on and off-pad. The source of the release has been stopped and the impacted area has been secured. Initial response and removal of saturated soil from the release area has been completed.

Incident ID	NAPP2235375291
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? Release greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notice was given by Kalei Jennings with Ensolum on behalf of Maverick Permian via email on December 4, 2022 at 2:54 PM to ocd.enviro@emnrd.nm.gov .	

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>12/19/2022</u>
email: <u>Bryce.Wagoner@mavresources.com</u>	Telephone: <u>928-241-1862</u>
<u>OCD Only</u>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>12/20/2022</u>

NAPP2235375291

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 (ft²)	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	90.0	45.0	4.0	4.0	0.35	4050.0	0.1	60.1	21.03	39.05
Rectangle B	60.0	45.0	3.0	4.0	0.30	2700.0	0.1	30.0	9.01	21.03
Rectangle C	55.0	35.0	3.00	4.00	0.30	1925.000	0.063	21.416	1.34	14.99
Rectangle D	75.0	35.0	3.00	4.00	0.30	2625.000	0.063	29.203	1.83	20.44
Rectangle E	30.0	25.0	2.00	4.00	0.30	750.000	0.042	5.563	0.23	3.89
Total Volume (bbls):								146.29	33.43	99.40

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 (ft²)	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	100.0	37.0	5.0	0.4	0.40	3700.0	274.4	109.8	43.91	65.9
Rectangle B	170.0	25.0	4.0	0.3	0.40	4250.0	252.2	75.7	30.26	45.4
Rectangle C	40.0	30.0	3.0	0.2	0.30	1200.0	53.4	10.7	3.20	7.5
Rectangle D	30.0	15.0	3.0	0.1	0.30	450.0	20.0	2.0	0.60	1.4
Rectangle E	65.0	25.0	3.0	0.1	0.30	1625.0	72.3	7.2	2.17	5.1
Rectangle F	30.0	25.0	2.0	0.1	0.3	750.0	22.3	2.2	0.67	1.6
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):								207.56	80.81	126.75

TOTAL RELEASE VOLUME (bbls):	353.8
------------------------------	-------

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 168594

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 168594
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	12/20/2022

Incident ID	NAPP2235375291
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>51 - 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

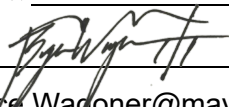
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, 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	NAPP2235375291
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 WagonerTitle: Permian HSE Specialist IISignature: Date: 3/3/2023email: Bryce.Wagoner@mavresources.comTelephone: (928) 241-1862**OCD Only**Received by: Jocelyn HarimonDate: 03/06/2023

Incident ID	NAPP2235375291
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.

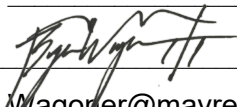
Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ 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: 3/3/2023

email: Bryce.Wagoner@mavresources.com

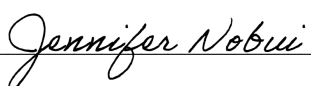
Telephone: (928) 241-1862

OCD Only

Received by: Jocelyn Harimon

Date: 03/06/2023

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: 03/14/2023

Printed Name: Jennifer Nobui

Title: Environmental Specialist A

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 193102

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 193102
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	3/14/2023