APPROVED

ENSOLUM

April 14, 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
Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01)
Incident Number NAPP2230752440
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01) (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of crude oil into the pasture adjacent to the Site. Based on field observations, excavation activities, and laboratory analytical results from soil sampling events, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting no further action for Incident Number NAPP2230752440.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit K, Section 33, Township 17 South, Range 35 East, in Lea County, New Mexico (32.789981°, -103.464201°) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On October 25, 2022, a flowline failure resulted in the release of approximately 7.1 barrels (bbls) of crude oil water into the adjacent pasture. A vacuum truck was immediately dispatched and recovered approximately 5 bbls of fluid. Maverick reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) and submitted a Release Notification Form C-141 (Form C-141) on November 3, 2022. The release was assigned Incident Number NAPP2230752440.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be between 51 feet and 100 feet below ground surface (bgs) based on regional groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well L-04880, located approximately 246 feet southwest of the Site. The groundwater well has a reported depth to groundwater

of 90 feet bgs. Ground surface elevation at the groundwater well location is 3,953 feet above mean sea level (amsl), which is approximately 2 feet lower in elevation than the Site.

Three other wells within 0.6 miles of the Site have reported depths to groundwater between 51 feet and 100 feet bgs. The groundwater well with the most recent depth to groundwater is United States Geological Survey (USGS) well 324708103270401, located approximately 0.58 miles east of the Site. The groundwater well has a reported depth to groundwater from December 1990 of 66.94 feet bgs. Ground surface elevation at the groundwater well location is 3,939 feet above mean sea level (amsl), which is approximately 12 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a playa, located approximately 2,144 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 less than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On October 27, 2022, Site assessment activities were conducted to evaluate the release based on information provided on the Form C-141 and visual observations. Four soil samples (SS01 through SS04) were collected within the observed soil stained area, defined as the release extent, a depth of 0.5 feet bgs. In addition, four delineation soil samples (SS05 through SS08) were collected around the release extent at a depth of 0.5 feet bgs, to assess the lateral extent of the release The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation of the Site visit is included in a photographic log in Appendix B.

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

Laboratory analytical results for soil samples SS02 and SS03 indicated TPH concentrations exceeded the applicable Site Closure Criteria. Laboratory analytical results for preliminary soil samples SS01 and SS04 and lateral delineation soil samples SS05 through SS08 indicated all COC concentrations were compliant with the applicable Site Closure Criteria. Based on visible staining within the release area and laboratory analytical results, excavation activities appeared to be warranted.

EXCAVATION AND LABORATORY ANALYTICAL RESULTS

On January 20, 2023, Ensolum personnel were at the Site to oversee excavation activities. Impacted soil was excavated as indicated by visible staining and laboratory analytical results for soil samples SS02 and SS03. Excavation activities were performed using a backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride.

Following removal of the 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 FS08 were collected from the floor of the excavation at a depth of 1-foot bgs. Due to the shallow depth of the excavation, sidewalls were included in the floor samples. The excavation confirmation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation confirmation soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 3. Photographic documentation of the excavation is included in Appendix B.

Laboratory analytical results for excavation confirmation sample FS03, and FS05 through FS08 indicated all COC concentrations were compliant with the applicable Site Closure Criteria. Laboratory analytical results for excavation confirmation samples FS01, FS02, and FS04 indicate TPH concentrations exceeded Site Closure Criteria.

Ensolum personnel returned to the Site on February 6, 2023, to oversee excavation activities to remove additional soil from the floor of the excavation in the vicinity of confirmation floor soil samples FS01, FS02, and FS04. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to a total depth of 1.5 feet bgs. Upon completion of excavation activities, 5-point composite soil samples FS01A, FS02A, and FS04A were collected from the floor of the excavation at a depth of 1.5 feet bgs. The soil samples were collected, handled, and analyzed following the same procedure described above.

Laboratory analytical results for soil samples FS01A, FS02A, and FS04A indicated all COC concentrations were compliant with Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

The excavation area measured approximately 1,600 square feet. A total of approximately 75 cubic yards of impacted soil was removed, transported, and properly disposed of at R360 Environmental Solutions in Hobbs, New Mexico.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the October 25, 2022, release of crude oil. Laboratory analytical results for the final excavation confirmation soil samples indicated concentrations of all COCs were compliant with the Site Closure Criteria. Based on the laboratory analytical results, no further remediation was required. Maverick will backfill the excavation with material purchased locally, recontour the Site to match pre-existing site conditions and re-seed the disturbed area with the appropriate BLM seed mixture during the next possible growing season for optimal vegetation growth.

Maverick believes the remedial actions are protective of human health, the environment, and groundwater. As such, Maverick respectfully requests closure for Incident Number NAPP2230752440. The Final C-141 is included in Appendix E.

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

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Scientist

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 2	Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
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	NMOCD Sampling Notifications
Appendix E	Final C-141

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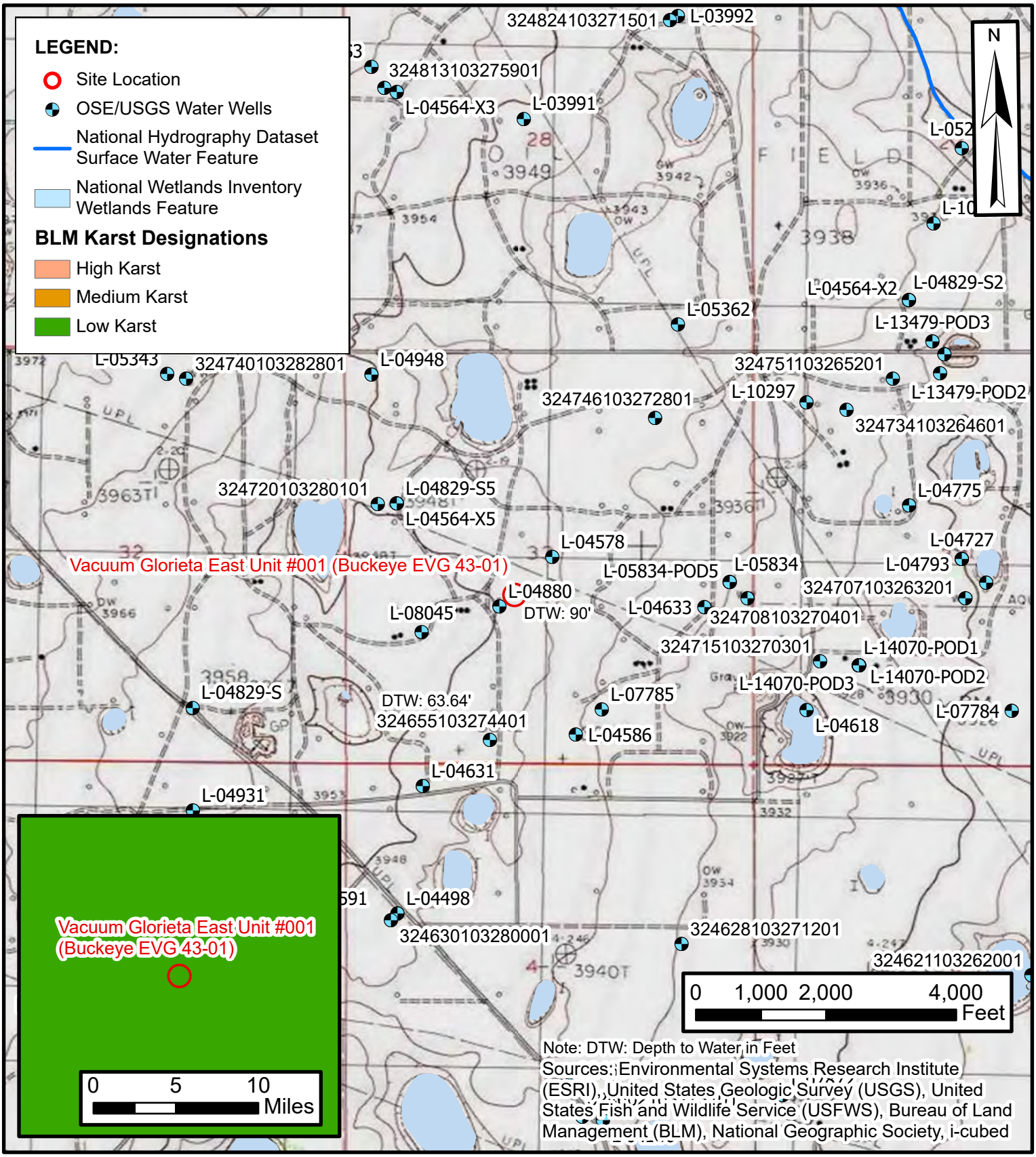
FIGURES



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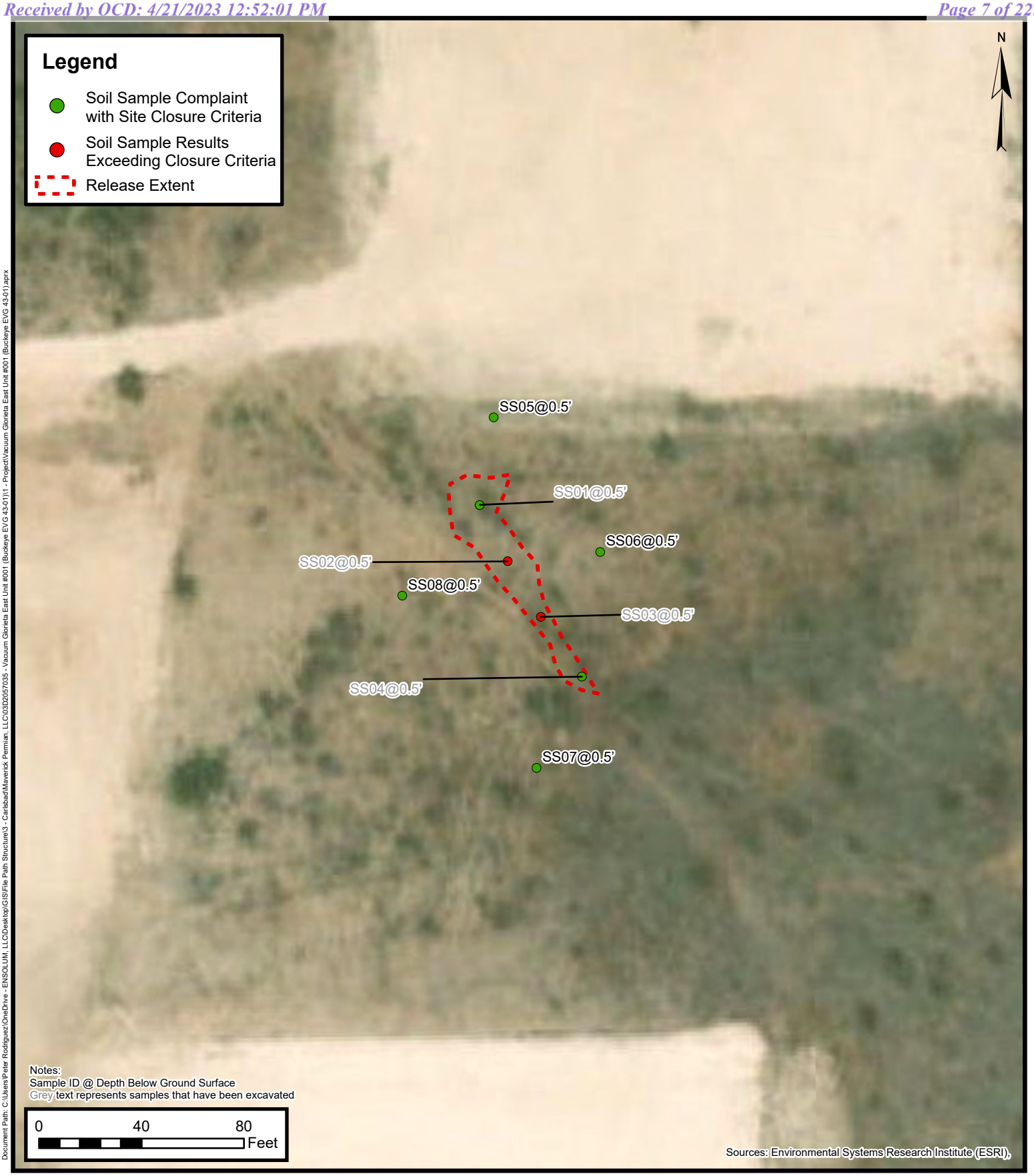
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Maverick Permian, LLC
Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01)
Incident Number: NAPP2230752440
Unit K, Sec 33, T17S, R35E
Lea County, New Mexico

FIGURE
1



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Environmental, Engineering and Hydrogeologic Consultants

Soil Sample Locations

MAVERICK PERMIAN, LLC
VACUUM GLORIETA EAST UNIT #001 (BUCKEYE EVG 43-01)
Incident Number: NAPP2230752440
Unit K, Sec 33, T17S, R35E
Lea County, New Mexico

FIGURE
2

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Environmental, Engineering and Hydrogeologic Consultants

Excavation Soil Sample Locations

MAVERICK PERMIAN, LLC
VACUUM GLORIETA EAST UNIT #001 (BUCKEYE EVG 43-01)
Incident Number: NAPP2230752440
Unit K, Sec 33, T17S, R35E
Lea County, New Mexico

FIGURE
3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01)
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**NE**	**100**	**600**
Soil Samples Locations										
SS01	10/27/2022	0.5	0.0119	0.655	<49.8	70.6	<49.8	70.6	70.6	62.6
SS02	10/27/2022	0.5	0.138	2.67	<49.9	275	<49.9	275	**275**	58.3
SS03	10/27/2022	0.5	0.0464	0.455	<50.0	124	<50.0	124	**124**	42.5
SS04	10/27/2022	0.5	<0.00998	0.240	<50.0	<50.0	<50.0	<50.0	<50.0	39.5
SS05	03/08/2023	0.5	<0.00198	0.00828	<49.9	<49.9	<49.9	<49.9	<49.9	6.01
SS06	03/08/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<4.96
SS07	03/08/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.98
SS08	03/08/2023	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5.16
Excavation Soil Samples										
FS01	01/20/2023	1	<0.00199	<0.00398	<49.9	140	<49.9	140	140	107
FS01A	02/06/2023	1.5	<0.00199	<0.00398	<49.9	<49.9	<49.10	<49.11	<49.12	178
FS02	01/20/2023	1	<0.00200	<0.00399	<49.9	213	<49.9	213	213	94.7
FS02A	02/06/2023	1.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	81.4
FS03	01/20/2023	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	18.6
FS04	01/20/2023	1	<0.00200	<0.00401	<49.9	127	<49.9	127	127	13.9
FS04A	02/06/2023	1.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	16.4
FS05	01/20/2023	1	<0.00202	0.101	<50.0	<50.0	<50.0	<50.0	<50.0	180
FS06	01/20/2023	1	<0.00200	0.0303	<50.0	<50.0	<50.0	<50.0	<50.0	126
FS07	01/20/2023	1	<0.00199	0.0415	<50.0	<50.0	<50.0	<50.0	<50.0	61.9
FS08	01/20/2023	1	0.00225	0.0566	<49.8	<49.8	<49.8	<49.8	<49.8	75.0

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMAC: New Mexico Administrative Code
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
*Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable*
Grey text represents samples that have been excavated

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APPENDIX A

Referenced Well Records

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: L 04880 **Subbasin:** L **Cross Reference:** -

Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Owner: HONDO DRILLING COMPANY

Contact: JOHN W SHERMAN

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	500393	72121	1962-04-19	PMT	LOG	L 04880 (T) EXPIRED	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
L 04880		Shallow	2	3		33	17S	35E	643757	3629002*	SHELL "T" LEASE

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Form WR-23

SANTA FE

STATE ENGINEER OFFICE

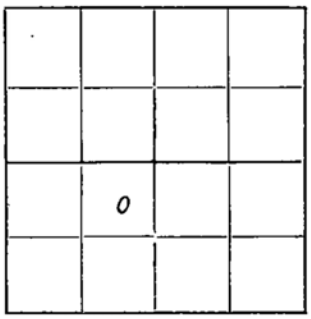
SHELL "T" LEASE

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest 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 1A and Section 5 need be completed.

500393

Section 1



(Plat of 640 acres)

(A) Owner of well HONDO DRILLING COMPANY

Street and Number P.O. Box 116

City MIDLAND State TEXAS

Well was drilled under Permit No. L-4880 and is located in the ¼ NE ¼ SW ¼ of Section 33 Twp. 17 S Rge. 35 E

(B) Drilling Contractor Abbott Brothers License No. WD-46

Street and Number Box 637

City Hobbs State New Mexico

Drilling was commenced April 18 19

Drilling was completed April 18 19 62

Elevation at top of casing in feet above sea level ..... Total depth of well 145

State whether well is shallow or artesian shallow Depth to water upon completion 90

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	90	145	55	water sand
2				
3				
4				
5				

STATE ENGINEER OFFICE SANTA FE, N. M. 1962 JUN -1 AM 8:51

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
7	20	10	0	145	145	none	90	145

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor ..... License No. .....

Street and Number ..... City ..... State .....

Tons of Clay used ..... Tons of Roughage used ..... Type of roughage .....

Plugging method used ..... Date Plugged ..... 19 .....

Plugging approved by:

..... Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received STATE ENGINEER OFFICE ROSWELL, N. M. DISTRICT II 1962 MAY 28 AM 8:24

File No. L-4880 Use O.W.D. Location No. 17.35.33.320

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	1	1		soil
1	21	20		caliche
21	90	69		sand
90	145	55		water sand

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Murrell Abbott

Well Driller

Form WR-23

SANTA FE

STATE ENGINEER OFFICE WELL "T" Lease

Plugging WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest 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 1A and Section 5 need be completed.

Section 1

	0		

(Plat of 640 acres)

(A) Owner of well HONDO DRILLING COMPANY

Street and Number P.O. BOX 116

City MIDLAND State TEXAS

Well was drilled under Permit No. L-4880 and is located in the ____ ¼ NE ¼ SW ¼ of Section 33 Twp. 17 S Rge. 35 E

(B) Drilling Contractor ____ License No. ____

Street and Number ____

City ____ State ____

Drilling was commenced ____ 19__

Drilling was completed ____ 19__

Elevation at top of casing in feet above sea level ____ Total depth of well ____

State whether well is shallow or artesian ____ Depth to water upon completion ____

Section 2

PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation
	From	To		
1				
2				
3				
4				
5				

1962 JUL -9 AM 8:59
STATE ENGINEER OFFICE
SANTA FE, N. M.

Section 3

RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth		Feet	Type Shoe	Perforations	
			Top	Bottom			From	To

Section 4

RECORD OF MUDDING AND CEMENTING

Depth in Feet		Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
From	To				

Section 5

PLUGGING RECORD

Name of Plugging Contractor ABBOTT BROTHERS License No. WD-46

Street and Number P.O. Box 637 City Hobbs State New Mexico

Tons of Clay used ____ Tons of Roughage used ____ Type of roughage ____

Plugging method used Wet conc. plug over rubble fill Date Plugged June 14 1962

Plugging approved by:

James [signature]

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug		No. of Sacks Used
	From	To	
1	2	5	3

FOR USE OF STATE ENGINEER ONLY

Date Received STATE ENGINEER OFFICE ✓
DISTRICT II
ROSWELL, N. M.
1962 JUL -6 AM 8:19

File No. L-4880 Use O.W.D. Location No. 17.35.33.320

(11)P - H

Section 6

LOG OF WELL

Depth in Feet		Thickness in Feet	Color	Type of Material Encountered
From	To			

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Murrell Abbott

Well Driller

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- See the Water Data for the Nation Blog for the latest news and updates.

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 324655103274401

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

USGS 324655103274401 17S.35E.33.343421

Lea County, New Mexico
Latitude 32°47'05", Longitude 103°27'53" NAD27
Land-surface elevation 3,945.00 feet above NGVD29
The depth of the well is 126 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1961-03-24		D	62610		3885.85	NGVD29	1	Z		
1961-03-24		D	62611		3887.34	NAVD88	1	Z		
1961-03-24		D	72019	59.15			1	Z		
1966-03-17		D	62610		3886.03	NGVD29	1	Z		
1966-03-17		D	62611		3887.52	NAVD88	1	Z		
1966-03-17		D	72019	58.97			1	Z		
1971-02-12		D	62610		3885.27	NGVD29	1	Z		
1971-02-12		D	62611		3886.76	NAVD88	1	Z		
1971-02-12		D	72019	59.73			1	Z		
1976-03-04		D	62610		3883.74	NGVD29	1	Z		
1976-03-04		D	62611		3885.23	NAVD88	1	Z		
1976-03-04		D	72019	61.26			1	Z		
1981-01-21		D	62610		3881.36	NGVD29	1	Z		
1981-01-21		D	62611		3882.85	NAVD88	1	Z		
1981-01-21		D	72019	63.64			1	Z		

Explanation

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

National Water Information System: Web Interface

USGS Water Resources

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

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

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 324708103270401

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

USGS 324708103270401 17S.35E.33.422442

Lea County, New Mexico
Latitude 32°47'23", Longitude 103°27'14" NAD27
Land-surface elevation 3,935.00 feet above NGVD29
The depth of the well is 234 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1986-01-16		D	62610		3870.92	NGVD29	1	Z			A
1986-01-16		D	62611		3872.39	NAVD88	1	Z			A
1986-01-16		D	72019	64.08			1	Z			A
1990-12-20		D	62610		3868.06	NGVD29	1	Z			A
1990-12-20		D	62611		3869.53	NAVD88	1	Z			A
1990-12-20		D	72019	66.94			1	Z			A

Explanation

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

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	L 04578				33	17S	35E	643962	3629198*

Driller License:	99	**Driller Company:**	O.R. MUSSELWHITE WATER WELL SE		
Driller Name:					
Drill Start Date:	01/12/1961	**Drill Finish Date:**	01/14/1961	**Plug Date:**	01/14/1961
Log File Date:	01/17/1961	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	6.63	**Depth Well:**	126 feet	**Depth Water:**	60 feet

Water Bearing Stratifications:	Top	Bottom	Description
	90	126	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	66	126

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

Form WR-23 SANTA FE   STATE ENGINEER OFFICE   495261

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest 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 1A and Section 5 need be completed.

Section 1

(A) Owner of well Shoenfeld- Hunter & Kitch Drlg. Co.
Street and Number Box 952
City Odessa, State Texas
Well was drilled under Permit No. L-4578 and is located in the 1980 ft. from west line, 330 ft from south line ¼ ¼ ¼ of Section 33 Twp. 17S Rge. 35E
(B) Drilling Contractor O. R. Musslewhite License No. WD99
Street and Number Box 56
City Hobbs, State New Mexico
Drilling was commenced Jan. 12, 1961
Drilling was completed Jan. 14, 1961

(Plat of 640 acres)

Elevation at top of casing in feet above sea level unkown Total depth of well 126
State whether well is shallow or artesian shallow Depth to water upon completion 60

STATE ENGINEER OFFICE SANTA FE, N.M. 1961 JAN 24 AM 8:32

Section 2

PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	90	126	36	Sand & sand rock, broken
2				
3				
4				
5				

Section 3

RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
6 5/8	15	None	0	126	126	None	66	126

Section 4

RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5

PLUGGING RECORD

Name of Plugging Contractor ______ License No. ______
Street and Number ______ City ______ State ______
Tons of Clay used ______ Tons of Roughage used ______ Type of roughage ______
Plugging method used ______ Date Plugged ______ 19____
Plugging approved by: Cement Plugs were placed as follows:

______
Basin Supervisor

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received STATE ENGINEER OFFICE DISTRICT II ROSWELL, N. MEX. 1961 JUN 17 AM 8:23

File No. L-4578 Use O.W.D. Location No. 17.35.33.340

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	1	1	Black	Soil & rock
1	32	31	White	Caliche & rock
32	50	18	Grey	Sandy shale
50	54	4	"	Sand rock
54	126	72	Red	Sand & sand rock, broken

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

O. R. Musselwhite
Well Driller

STATE ENGINEER OFFICE

496261

SANTA FE

Plugging WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest 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 1A and Section 5 need be completed.

Section 1

1980 ft. from W. line & 330 ft. from S line			

(Plat of 640 acres)

(A) Owner of well Schoenfeld Hunter Kitch Drlg. Co.

Street and Number Box 952

City Odessa, State Texas

Well was drilled under Permit No. L-4578 and is located in the ¼ of Section 33 Twp. 17S Rge. 35E

(B) Drilling Contractor License No.

Street and Number

City State

Drilling was commenced 19

Drilling was completed 19

Elevation at top of casing in feet above sea level Total depth of well

State whether well is shallow or artesian Depth to water upon completion

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1				
2				
3				
4				
5				

1961 NOV 13 AM 8:40
STATE ENGINEER OFFICE
SANTA FE, N. MEX.

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor O. R. Musslewhite License No. WD99

Street and Number Box 56 City Hobbs, State New Mexico

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Weld plate on casing Date Plugged Jan. 13, 19 61

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received NOV 10 AM 8:11 1961

STATE ENGINEER OFFICE
DISTRICT II
ROSWELL, N. MEX.

File No. L-4578 Use O. W. D Location No. 17.35.33.340

Section 6

LOG OF WELL

Depth in Feet		Thickness in Feet	Color	Type of Material Encountered
From	To			

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driller

Form WR-23

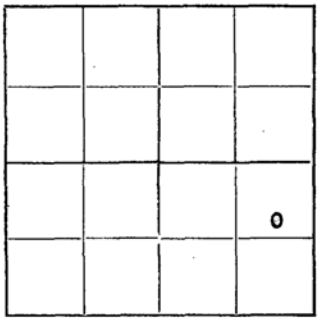
STATE ENGINEER OFFICE [redacted]UM ABO

[redacted]LL STATE "T" No. 7

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest 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 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well HONDO DRILLING COMPANY

Street and Number P.O. Box 116

City Midland State Texas

Well was drilled under Permit No. L-4633 and is located in the S½ ¼ NE ¼ SE ¼ of Section 33 Twp. 17 South Rge. 35 East

(B) Drilling Contractor Abbott Brothers License No. WD-46

Street and Number P.O. Box 637

City Hobbs State New Mexico

Drilling was commenced April 20 19

Drilling was completed April 20 19 61

Elevation at top of casing in feet above sea level Total depth of well 130

State whether well is shallow or artesian shallow Depth to water upon completion 65

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	65	130	65	water sand
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
6 5/8	17	10	0	100	100	open	65	100

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

1961 MAY -2 AM 8:25
STATE ENGINEER OFFICE
SANTA FE, N. M.

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received STATE ENGINEER OFFICE DISTRICT II HOBBS, N. MEX. APR 27 AM 7:45 1961

File No. L-4633 Use O.W.D. Location No. 17.35.33.424

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	1	1		soil
1	19	18		caliche
19	65	46		sand
65	130	65		water sand

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Murrell Abbott Jr

Well Driller

Form WR-23

STATE ENGINEER OFFICE

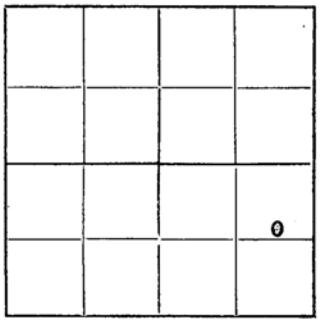
SANTA FE

Plugging WELL RECORD

44578

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest 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 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well HONDO DRILLING COMPANY

Street and Number Box 116

City Midland State Texas

Well was drilled under Permit No. L-4633 and is located in the S½ ¼ NE ¼ SE ¼ of Section 33 Twp. 17 S Rge. 35 E

(B) Drilling Contractor License No.

Street and Number

City State

Drilling was commenced 19

Drilling was completed 19

Elevation at top of casing in feet above sea level Total depth of well

State whether well is shallow or artesian Depth to water upon completion

STATE ENGINEER OFFICE
SANTA FE, N. M.
JUN 28 AM 8:49
1961

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1				
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor Abbott Brothers License No. WD-46

Street and Number Box 637 City Hobbs State New Mexico

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Wet conc. plug over rubble fill Date Plugged June 9 19 61

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used
1	3	6	4

FOR USE OF STATE ENGINEER ONLY

Date Received

ROSWELL, N. MEX.
DISTRICT II
STATE ENGINEER OFFICE
JUN 22 AM 8:11
1961

File No. L-4633 Use O.W.D. Location No. 17.35.33.424

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Well Driller

ENSOLUM

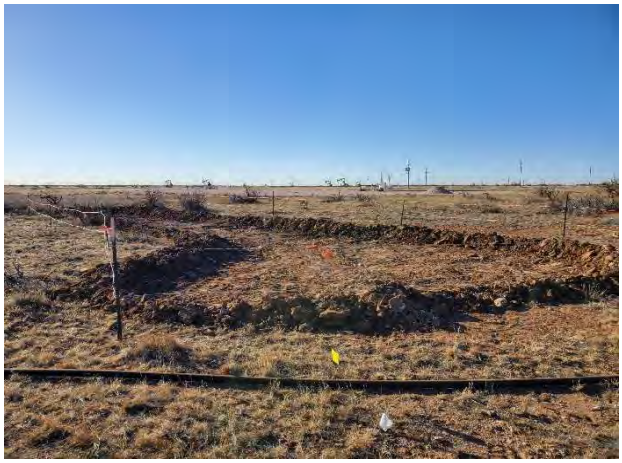
APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
Maverick Permian, LLC
Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01)
Incident Number NAPP2230752440

Photograph 1 Date: 10/27/2022
Description: Release area prior to excavation



Photograph 2 Date: 01/20/2023
Description: Excavation activities

Photograph 3 Date: 02/06/2023
Description: Final excavation extent

Photograph 4 Date: 02/06/2023
Description: Final excavation extent

ENSOLUM

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3329-1
Laboratory Sample Delivery Group: 03D2057035
Client Project/Site: EVG 43-01

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/3/2022 4:17:44 PM

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

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

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

Client: Ensolum
Project/Site: EVG 43-01

Laboratory Job ID: 890-3329-1
SDG: 03D2057035

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Job ID: 890-3329-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3329-1

Receipt
The samples were received on 10/28/2022 12:18 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 5.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3329-1), SS02 (890-3329-2), SS03 (890-3329-3) and SS04 (890-3329-4).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-38465 and analytical batch 880-38581 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-3329-1), SS02 (890-3329-2) and SS04 (890-3329-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-20981-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-3322-A-2-D MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-38325 and analytical batch 880-38323 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

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: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Client Sample ID: SS01

Lab Sample ID: 890-3329-1
Matrix: Solid
Date Collected: 10/27/22 12:00
Date Received: 10/28/22 12:18
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0119**		0.00996		mg/Kg		11/02/22 15:00	11/03/22 13:22	5
Toluene	**0.144**		0.00996		mg/Kg		11/02/22 15:00	11/03/22 13:22	5
Ethylbenzene	**0.198**		0.00996		mg/Kg		11/02/22 15:00	11/03/22 13:22	5
m-Xylene & p-Xylene	**0.181**		0.0199		mg/Kg		11/02/22 15:00	11/03/22 13:22	5
o-Xylene	**0.120**		0.00996		mg/Kg		11/02/22 15:00	11/03/22 13:22	5
Xylenes, Total	**0.301**		0.0199		mg/Kg		11/02/22 15:00	11/03/22 13:22	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*157*	*S1+*	*70 - 130*	*11/02/22 15:00*	*11/03/22 13:22*	*5*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/02/22 15:00*	*11/03/22 13:22*	*5*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.655**		0.0199		mg/Kg			11/03/22 16:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.6**		49.8		mg/Kg			11/02/22 10:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 13:32	1
Diesel Range Organics (Over C10-C28)	**70.6**		49.8		mg/Kg		11/01/22 08:49	11/01/22 13:32	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/01/22 08:49	11/01/22 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*11/01/22 08:49*	*11/01/22 13:32*	*1*
o-Terphenyl	*90*		*70 - 130*	*11/01/22 08:49*	*11/01/22 13:32*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**62.6**		4.95		mg/Kg			11/01/22 23:44	1

Client Sample ID: SS02

Lab Sample ID: 890-3329-2
Matrix: Solid
Date Collected: 10/27/22 12:05
Date Received: 10/28/22 12:18
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.138**		0.0199		mg/Kg		11/02/22 15:00	11/03/22 13:43	10
Toluene	**0.194**		0.0199		mg/Kg		11/02/22 15:00	11/03/22 13:43	10
Ethylbenzene	**1.11**		0.0199		mg/Kg		11/02/22 15:00	11/03/22 13:43	10
m-Xylene & p-Xylene	**0.745**		0.0398		mg/Kg		11/02/22 15:00	11/03/22 13:43	10
o-Xylene	**0.481**		0.0199		mg/Kg		11/02/22 15:00	11/03/22 13:43	10
Xylenes, Total	**1.23**		0.0398		mg/Kg		11/02/22 15:00	11/03/22 13:43	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*156*	*S1+*	*70 - 130*	*11/02/22 15:00*	*11/03/22 13:43*	*10*

Client Sample Results

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Client Sample ID: SS02

Lab Sample ID: 890-3329-2
Matrix: Solid
Date Collected: 10/27/22 12:05
Date Received: 10/28/22 12:18
Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*11/02/22 15:00*	*11/03/22 13:43*	*10*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**2.67**		0.0398	mg/Kg			11/03/22 16:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**275**		49.9	mg/Kg			11/02/22 10:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		11/01/22 08:49	11/01/22 13:54	1
Diesel Range Organics (Over C10-C28)	**275**		49.9	mg/Kg		11/01/22 08:49	11/01/22 13:54	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/01/22 08:49	11/01/22 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*82*		*70 - 130*	*11/01/22 08:49*	*11/01/22 13:54*	*1*
o-Terphenyl	*85*		*70 - 130*	*11/01/22 08:49*	*11/01/22 13:54*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58.3**		4.99	mg/Kg			11/01/22 23:49	1

Client Sample ID: SS03

Lab Sample ID: 890-3329-3
Matrix: Solid
Date Collected: 10/27/22 12:10
Date Received: 10/28/22 12:18
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0464**		0.0101	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
Toluene	**0.0584**		0.0101	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
Ethylbenzene	**0.136**		0.0101	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
m-Xylene & p-Xylene	**0.122**		0.0202	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
o-Xylene	**0.0921**		0.0101	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
Xylenes, Total	**0.214**		0.0202	mg/Kg		11/02/22 15:00	11/03/22 14:03	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*11/02/22 15:00*	*11/03/22 14:03*	*5*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*11/02/22 15:00*	*11/03/22 14:03*	*5*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.455**		0.0202	mg/Kg			11/03/22 16:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**124**		50.0	mg/Kg			11/02/22 10:14	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Client Sample ID: SS03

Lab Sample ID: 890-3329-3
Matrix: Solid
Date Collected: 10/27/22 12:10
Date Received: 10/28/22 12:18
Sample Depth: 0.5

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		11/01/22 08:49	11/01/22 14:15	1
Diesel Range Organics (Over C10-C28)	**124**		50.0		mg/Kg		11/01/22 08:49	11/01/22 14:15	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/22 08:49	11/01/22 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*11/01/22 08:49*	*11/01/22 14:15*	*1*
o-Terphenyl	*93*		*70 - 130*	*11/01/22 08:49*	*11/01/22 14:15*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.5**		4.97		mg/Kg			11/01/22 23:54	1

Client Sample ID: SS04

Lab Sample ID: 890-3329-4
Matrix: Solid
Date Collected: 10/27/22 12:10
Date Received: 10/28/22 12:18
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00998	U	0.00998		mg/Kg		11/02/22 15:00	11/03/22 14:24	5
Toluene	**0.0536**		0.00998		mg/Kg		11/02/22 15:00	11/03/22 14:24	5
Ethylbenzene	**0.0639**		0.00998		mg/Kg		11/02/22 15:00	11/03/22 14:24	5
m-Xylene & p-Xylene	**0.0617**		0.0200		mg/Kg		11/02/22 15:00	11/03/22 14:24	5
o-Xylene	**0.0610**		0.00998		mg/Kg		11/02/22 15:00	11/03/22 14:24	5
Xylenes, Total	**0.123**		0.0200		mg/Kg		11/02/22 15:00	11/03/22 14:24	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*151*	*S1+*	*70 - 130*	*11/02/22 15:00*	*11/03/22 14:24*	*5*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*11/02/22 15:00*	*11/03/22 14:24*	*5*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.240**		0.0200		mg/Kg			11/03/22 16:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/02/22 10:14	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/01/22 08:49	11/01/22 14:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/22 08:49	11/01/22 14:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/22 08:49	11/01/22 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*11/01/22 08:49*	*11/01/22 14:37*	*1*
o-Terphenyl	*89*		*70 - 130*	*11/01/22 08:49*	*11/01/22 14:37*	*1*

Client Sample Results

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Client Sample ID: SS04
Date Collected: 10/27/22 12:10
Date Received: 10/28/22 12:18
Sample Depth: 0.5

Lab Sample ID: 890-3329-4
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.5		4.95		mg/Kg			11/02/22 00:09	1

Surrogate Summary

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-20981-A-1-B MS	Matrix Spike	91	93
880-20981-A-1-C MSD	Matrix Spike Duplicate	46 S1-	71
890-3329-1	SS01	157 S1+	111
890-3329-2	SS02	156 S1+	112
890-3329-3	SS03	116	84
890-3329-4	SS04	151 S1+	110
LCS 880-38465/1-A	Lab Control Sample	95	99
LCSD 880-38465/2-A	Lab Control Sample Dup	98	94
MB 880-38465/5-A	Method Blank	98	91

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3322-A-2-D MS	Matrix Spike	73	69 S1-
890-3322-A-2-E MSD	Matrix Spike Duplicate	90	85
890-3329-1	SS01	86	90
890-3329-2	SS02	82	85
890-3329-3	SS03	90	93
890-3329-4	SS04	84	89
LCS 880-38325/2-A	Lab Control Sample	112	120
LCSD 880-38325/3-A	Lab Control Sample Dup	121	128
MB 880-38325/1-A	Method Blank	77	83

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-38465/5-A
Matrix: Solid
Analysis Batch: 38581

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38465

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/22 15:00	11/03/22 10:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/22 15:00	11/03/22 10:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/22 15:00	11/03/22 10:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/02/22 15:00	11/03/22 10:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/22 15:00	11/03/22 10:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/02/22 15:00	11/03/22 10:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/02/22 15:00*	*11/03/22 10:56*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*11/02/22 15:00*	*11/03/22 10:56*	*1*

Lab Sample ID: LCS 880-38465/1-A
Matrix: Solid
Analysis Batch: 38581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38465

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07921		mg/Kg		79	70 - 130		
Toluene			0.100	0.08140		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.08324		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1632		mg/Kg		82	70 - 130		
o-Xylene			0.100	0.09295		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-38465/2-A
Matrix: Solid
Analysis Batch: 38581

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38465

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08528		mg/Kg		85	70 - 130	7	35
Toluene			0.100	0.08804		mg/Kg		88	70 - 130	8	35
Ethylbenzene			0.100	0.09032		mg/Kg		90	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1781		mg/Kg		89	70 - 130	9	35
o-Xylene			0.100	0.1002		mg/Kg		100	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 880-20981-A-1-B MS
Matrix: Solid
Analysis Batch: 38581

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U F2 F1	0.0990	0.07448		mg/Kg		74	70 - 130		
Toluene	<0.00202	U F1	0.0990	0.07129		mg/Kg		72	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

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

Lab Sample ID: 880-20981-A-1-B MS
Matrix: Solid
Analysis Batch: 38581

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U F2 F1	0.0990	0.06359	F1	mg/Kg		64	70 - 130
m-Xylene & p-Xylene	0.00417	F2 F1	0.198	0.1265	F1	mg/Kg		62	70 - 130
o-Xylene	<0.00202	U F2 F1	0.0990	0.06683	F1	mg/Kg		67	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-20981-A-1-C MSD
Matrix: Solid
Analysis Batch: 38581

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38465

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F2 F1	0.0994	0.03522	F2 F1	mg/Kg		34	70 - 130	72	35
Toluene	<0.00202	U F1	0.0994	0.05260	F1	mg/Kg		53	70 - 130	30	35
Ethylbenzene	<0.00202	U F2 F1	0.0994	0.03748	F2 F1	mg/Kg		38	70 - 130	52	35
m-Xylene & p-Xylene	0.00417	F2 F1	0.199	0.06178	F2 F1	mg/Kg		29	70 - 130	69	35
o-Xylene	<0.00202	U F2 F1	0.0994	0.03257	F2 F1	mg/Kg		33	70 - 130	69	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*46*	*S1-*	*70 - 130*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*

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

Lab Sample ID: MB 880-38325/1-A
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 38325

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/01/22 08:49	11/01/22 09:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/01/22 08:49	11/01/22 09:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/01/22 08:49	11/01/22 09:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*11/01/22 08:49*	*11/01/22 09:56*	*1*
o-Terphenyl	*83*		*70 - 130*	*11/01/22 08:49*	*11/01/22 09:56*	*1*

Lab Sample ID: LCS 880-38325/2-A
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38325

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1179		mg/Kg		118	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1120		mg/Kg		112	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

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

Lab Sample ID: LCS 880-38325/2-A
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 38325

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: LCSD 880-38325/3-A
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 38325

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1081		mg/Kg		108	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1234		mg/Kg		123	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	128		70 - 130

Lab Sample ID: 890-3322-A-2-D MS
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 38325

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	997	1043		mg/Kg		102	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1 F2	997	809.2		mg/Kg		77	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: 890-3322-A-2-E MSD
Matrix: Solid
Analysis Batch: 38323

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 38325

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	999	899.6		mg/Kg		88	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1 F2	999	1022	F2	mg/Kg		98	70 - 130	23	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	85		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38262/1-A
Matrix: Solid
Analysis Batch: 38428

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/01/22 22:29	1

Lab Sample ID: LCS 880-38262/2-A
Matrix: Solid
Analysis Batch: 38428

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	262.5		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-38262/3-A
Matrix: Solid
Analysis Batch: 38428

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	265.5		mg/Kg		106	90 - 110	1	20

Lab Sample ID: 890-3329-3 MS
Matrix: Solid
Analysis Batch: 38428

Client Sample ID: SS03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	42.5		249	301.4		mg/Kg		104	90 - 110		

Lab Sample ID: 890-3329-3 MSD
Matrix: Solid
Analysis Batch: 38428

Client Sample ID: SS03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	42.5		249	297.0		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

GC VOA

Prep Batch: 38465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3329-1	SS01	Total/NA	Solid	5035	
890-3329-2	SS02	Total/NA	Solid	5035	
890-3329-3	SS03	Total/NA	Solid	5035	
890-3329-4	SS04	Total/NA	Solid	5035	
MB 880-38465/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-38465/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-38465/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20981-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-20981-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 38581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3329-1	SS01	Total/NA	Solid	8021B	38465
890-3329-2	SS02	Total/NA	Solid	8021B	38465
890-3329-3	SS03	Total/NA	Solid	8021B	38465
890-3329-4	SS04	Total/NA	Solid	8021B	38465
MB 880-38465/5-A	Method Blank	Total/NA	Solid	8021B	38465
LCS 880-38465/1-A	Lab Control Sample	Total/NA	Solid	8021B	38465
LCSD 880-38465/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	38465
880-20981-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	38465
880-20981-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	38465

Analysis Batch: 38671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3329-1	SS01	Total/NA	Solid	Total BTEX	
890-3329-2	SS02	Total/NA	Solid	Total BTEX	
890-3329-3	SS03	Total/NA	Solid	Total BTEX	
890-3329-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 38323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3329-1	SS01	Total/NA	Solid	8015B NM	38325
890-3329-2	SS02	Total/NA	Solid	8015B NM	38325
890-3329-3	SS03	Total/NA	Solid	8015B NM	38325
890-3329-4	SS04	Total/NA	Solid	8015B NM	38325
MB 880-38325/1-A	Method Blank	Total/NA	Solid	8015B NM	38325
LCS 880-38325/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	38325
LCSD 880-38325/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	38325
890-3322-A-2-D MS	Matrix Spike	Total/NA	Solid	8015B NM	38325
890-3322-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	38325

Prep Batch: 38325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3329-1	SS01	Total/NA	Solid	8015NM Prep	
890-3329-2	SS02	Total/NA	Solid	8015NM Prep	
890-3329-3	SS03	Total/NA	Solid	8015NM Prep	
890-3329-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-38325/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-38325/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

GC Semi VOA (Continued)

Prep Batch: 38325 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-38325/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3322-A-2-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3322-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 38466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3329-1	SS01	Total/NA	Solid	8015 NM	
890-3329-2	SS02	Total/NA	Solid	8015 NM	
890-3329-3	SS03	Total/NA	Solid	8015 NM	
890-3329-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 38262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3329-1	SS01	Soluble	Solid	DI Leach	
890-3329-2	SS02	Soluble	Solid	DI Leach	
890-3329-3	SS03	Soluble	Solid	DI Leach	
890-3329-4	SS04	Soluble	Solid	DI Leach	
MB 880-38262/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-38262/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-38262/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3329-3 MS	SS03	Soluble	Solid	DI Leach	
890-3329-3 MSD	SS03	Soluble	Solid	DI Leach	

Analysis Batch: 38428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3329-1	SS01	Soluble	Solid	300.0	38262
890-3329-2	SS02	Soluble	Solid	300.0	38262
890-3329-3	SS03	Soluble	Solid	300.0	38262
890-3329-4	SS04	Soluble	Solid	300.0	38262
MB 880-38262/1-A	Method Blank	Soluble	Solid	300.0	38262
LCS 880-38262/2-A	Lab Control Sample	Soluble	Solid	300.0	38262
LCSD 880-38262/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	38262
890-3329-3 MS	SS03	Soluble	Solid	300.0	38262
890-3329-3 MSD	SS03	Soluble	Solid	300.0	38262

Lab Chronicle

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Client Sample ID: SS01
Date Collected: 10/27/22 12:00
Date Received: 10/28/22 12:18

Lab Sample ID: 890-3329-1
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	38465	11/02/22 15:00	MNR	EET MID
Total/NA	Analysis	8021B		5	5 mL	5 mL	38581	11/03/22 13:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38671	11/03/22 16:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			38466	11/02/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 13:32	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38262	10/31/22 10:26	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:44	CH	EET MID

Client Sample ID: SS02
Date Collected: 10/27/22 12:05
Date Received: 10/28/22 12:18

Lab Sample ID: 890-3329-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	38465	11/02/22 15:00	MNR	EET MID
Total/NA	Analysis	8021B		10	5 mL	5 mL	38581	11/03/22 13:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38671	11/03/22 16:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			38466	11/02/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 13:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	38262	10/31/22 10:26	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:49	CH	EET MID

Client Sample ID: SS03
Date Collected: 10/27/22 12:10
Date Received: 10/28/22 12:18

Lab Sample ID: 890-3329-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	38465	11/02/22 15:00	MNR	EET MID
Total/NA	Analysis	8021B		5	5 mL	5 mL	38581	11/03/22 14:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38671	11/03/22 16:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			38466	11/02/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 14:15	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	38262	10/31/22 10:26	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:54	CH	EET MID

Client Sample ID: SS04
Date Collected: 10/27/22 12:10
Date Received: 10/28/22 12:18

Lab Sample ID: 890-3329-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	38465	11/02/22 15:00	MNR	EET MID
Total/NA	Analysis	8021B		5	5 mL	5 mL	38581	11/03/22 14:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38671	11/03/22 16:34	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Client Sample ID: SS04

Date Collected: 10/27/22 12:10
Date Received: 10/28/22 12:18

Lab Sample ID: 890-3329-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			38466	11/02/22 10:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	38325	11/01/22 08:49	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	38323	11/01/22 14:37	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	38262	10/31/22 10:26	CH	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/02/22 00:09	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: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

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: EVG 43-01

Job ID: 890-3329-1
SDG: 03D2057035

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3329-1	SS01	Solid	10/27/22 12:00	10/28/22 12:18	0.5
890-3329-2	SS02	Solid	10/27/22 12:05	10/28/22 12:18	0.5
890-3329-3	SS03	Solid	10/27/22 12:10	10/28/22 12:18	0.5
890-3329-4	SS04	Solid	10/27/22 12:10	10/28/22 12:18	0.5

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 National Parks Hwy	Address:	3122 National Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	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:	EVG 43-01	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057035	Due Date:	
Project Location:		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:	TM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.2
Total Containers:		Corrected Temperature:	5.0

ANALYSIS REQUEST

Preservative Codes

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

890-3329 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS01	S	10/27/2022	12:00	0.5'	Grab	1		x	x	x
SS02	S	10/27/2022	12:05	0.5'	Grab	1		x	x	x
SS03	S	10/27/2022	12:10	0.5'	Grab	1		x	x	x
SS04	S	10/27/2022	12:10	0.5'	Grab	1		x	x	x

Sample Comments

Incident ID:
Cost Center:
AFE:

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Amanda La Estrada	10/28/22 12	PC		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3329-1
SDG Number: 03D2057035

Login Number: 3329
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: 890-3329-1
SDG Number: 03D2057035

Login Number: 3329
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/31/22 09:20 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/21/2023 2:23:20 PM

JOB DESCRIPTION

Maverick Buckeye 43-01
SDG NUMBER Lea County NM

JOB NUMBER

890-4271-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

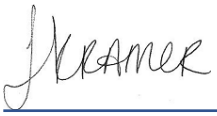
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Laboratory Job ID: 890-4271-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

Job ID: 890-4271-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4271-1

Receipt
The sample was received on 3/10/2023 8:59 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 4.4°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS08 (890-4271-1).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48750 and analytical batch 880-48814 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-48469 and analytical batch 880-48421 was outside the upper control limits.

Method 8015MOD_NM: Diesel range hydrocarbons biased high in LCS. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-48469/2-A)

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48591 and 880-48591 and analytical batch 880-49126 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated samples are: (890-4272-A-1-B), (890-4272-A-1-C MS) and (890-4272-A-1-E MSD).

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

Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

Client Sample ID: SS08

Date Collected: 03/08/23 14:20
Date Received: 03/10/23 08:59
Sample Depth: 0.5

Lab Sample ID: 890-4271-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 08:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 08:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 08:13	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/16/23 12:22	03/18/23 08:13	1
o-Xylene	**0.00225**		0.00200		mg/Kg		03/16/23 12:22	03/18/23 08:13	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/16/23 12:22	03/18/23 08:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*03/16/23 12:22*	*03/18/23 08:13*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/16/23 12:22*	*03/18/23 08:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			03/19/23 17:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/21/23 09:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/13/23 12:10	03/13/23 19:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		03/13/23 12:10	03/13/23 19:10	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/13/23 12:10	03/13/23 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/13/23 12:10*	*03/13/23 19:10*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/13/23 12:10*	*03/13/23 19:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.16**		4.99		mg/Kg			03/20/23 02:46	1

Surrogate Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
880-25777-A-1-A MS	Matrix Spike	84	85										
880-25777-A-1-B MSD	Matrix Spike Duplicate	99	88										
890-4271-1	SS08	80	95										
LCS 880-48750/1-A	Lab Control Sample	105	103										
LCSD 880-48750/2-A	Lab Control Sample Dup	107	103										
MB 880-48749/5-A	Method Blank	91	90										
MB 880-48750/5-A	Method Blank	95	88										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
880-25807-A-1-C MS	Matrix Spike	112	91										
880-25807-A-1-D MSD	Matrix Spike Duplicate	109	89										
890-4271-1	SS08	95	99										
LCS 880-48469/2-A	Lab Control Sample	99	99										
LCSD 880-48469/3-A	Lab Control Sample Dup	107	109										
MB 880-48469/1-A	Method Blank	133 S1+	133 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48749/5-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48749

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/16/23 12:20	03/17/23 13:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*03/16/23 12:20*	*03/17/23 13:32*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/16/23 12:20*	*03/17/23 13:32*	*1*

Lab Sample ID: MB 880-48750/5-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48750

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/16/23 12:22	03/18/23 01:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/16/23 12:22*	*03/18/23 01:07*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*03/16/23 12:22*	*03/18/23 01:07*	*1*

Lab Sample ID: LCS 880-48750/1-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09818		mg/Kg		98	70 - 130		
Toluene			0.100	0.09577		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09030		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1837		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09359		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-48750/2-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09542		mg/Kg		95	70 - 130	3	35

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-48750/2-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09418		mg/Kg		94	70 - 130	2	35
Ethylbenzene			0.100	0.09008		mg/Kg		90	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1828		mg/Kg		91	70 - 130	0	35
o-Xylene			0.100	0.09319		mg/Kg		93	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-25777-A-1-A MS
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48750

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.0998	0.03377	F1	mg/Kg		34	70 - 130
Toluene	<0.00201	U F1	0.0998	0.03745	F1	mg/Kg		38	70 - 130
Ethylbenzene	<0.00201	U F1	0.0998	0.02988	F1	mg/Kg		30	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.05821	F1	mg/Kg		29	70 - 130
o-Xylene	<0.00201	U F1	0.0998	0.03159	F1	mg/Kg		32	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: 880-25777-A-1-B MSD
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 48750

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.03954	F1	mg/Kg		40	70 - 130	16	35
Toluene	<0.00201	U F1	0.0990	0.04026	F1	mg/Kg		41	70 - 130	7	35
Ethylbenzene	<0.00201	U F1	0.0990	0.03408	F1	mg/Kg		34	70 - 130	13	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	0.06759	F1	mg/Kg		34	70 - 130	15	35
o-Xylene	<0.00201	U F1	0.0990	0.03588	F1	mg/Kg		36	70 - 130	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

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

Lab Sample ID: MB 880-48469/1-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48469

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-48469/1-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48469

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		03/13/23 08:40	03/13/23 08:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*03/13/23 08:40*	*03/13/23 08:55*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*03/13/23 08:40*	*03/13/23 08:55*	*1*

Lab Sample ID: LCS 880-48469/2-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48469

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	742.1		mg/Kg		74	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1373	*+	mg/Kg		137	70 - 130		

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

Lab Sample ID: LCSD 880-48469/3-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48469

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	907.2		mg/Kg		91	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	1286		mg/Kg		129	70 - 130	7	20

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

Lab Sample ID: 880-25807-A-1-C MS
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48469

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	858.5		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *+	998	932.0		mg/Kg		89	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

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

Lab Sample ID: 880-25807-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 48421 — **Prep Batch: 48469**

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	842.2		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *+	999	916.1		mg/Kg		87	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-48591/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/20/23 01:26	1

Lab Sample ID: LCS 880-48591/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	268.8		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-48591/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	268.7		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-4272-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<4.98	U F1	249	281.0	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 890-4272-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

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	280.1	F1	mg/Kg		111	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

GC VOA

Prep Batch: 48749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-48749/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 48750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4271-1	SS08	Total/NA	Solid	5035	
MB 880-48750/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48750/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48750/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25777-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-25777-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 48814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4271-1	SS08	Total/NA	Solid	8021B	48750
MB 880-48749/5-A	Method Blank	Total/NA	Solid	8021B	48749
MB 880-48750/5-A	Method Blank	Total/NA	Solid	8021B	48750
LCS 880-48750/1-A	Lab Control Sample	Total/NA	Solid	8021B	48750
LCSD 880-48750/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48750
880-25777-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	48750
880-25777-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	48750

Analysis Batch: 48939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4271-1	SS08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 48421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4271-1	SS08	Total/NA	Solid	8015B NM	48469
MB 880-48469/1-A	Method Blank	Total/NA	Solid	8015B NM	48469
LCS 880-48469/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	48469
LCSD 880-48469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	48469
880-25807-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	48469
880-25807-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	48469

Prep Batch: 48469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4271-1	SS08	Total/NA	Solid	8015NM Prep	
MB 880-48469/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-48469/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-48469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-25807-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-25807-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4271-1	SS08	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 48591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4271-1	SS08	Soluble	Solid	DI Leach	
MB 880-48591/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-48591/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-48591/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4272-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4272-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 49126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4271-1	SS08	Soluble	Solid	300.0	48591
MB 880-48591/1-A	Method Blank	Soluble	Solid	300.0	48591
LCS 880-48591/2-A	Lab Control Sample	Soluble	Solid	300.0	48591
LCSD 880-48591/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	48591
890-4272-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	48591
890-4272-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	48591

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

Client Sample ID: SS08

Date Collected: 03/08/23 14:20
Date Received: 03/10/23 08:59

Lab Sample ID: 890-4271-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	48750	03/16/23 12:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48814	03/18/23 08:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48939	03/19/23 17:50	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49094	03/21/23 09:46	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	48469	03/13/23 12:10	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48421	03/13/23 19:10	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	48591	03/14/23 11:19	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49126	03/20/23 02:46	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
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: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4271-1	SS08	Solid	03/08/23 14:20	03/10/23 08:59	0.5

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	Maverick Buckeye 43-01	Turn Around	
Project Number:	03D2057035	☑ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TDM 007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	4.6
Total Containers:		Corrected Temperature:	4.4

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2S0_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

ANALYSIS REQUEST

Parameters

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021	Sample Comments
SS08	S	3/8/2023	14:20	0.5'	Grab	1		X	X	X	
											NAPP2230752440

890-4271 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DN	M. O'Dell	3.10.23 2859			
3	Amanda Stutz		4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4271-1
SDG Number: Lea County NM

Login Number: 4271
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	Refer to job narrative
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4271-1
SDG Number: Lea County NM

Login Number: 4271
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/13/23 08:24 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/21/2023 2:24:00 PM

JOB DESCRIPTION

Maverick Buckeye 43-01
SDG NUMBER Lea County NM

JOB NUMBER

890-4272-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

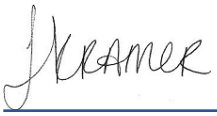
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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3/21/2023 2:24:00 PM

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

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Laboratory Job ID: 890-4272-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-4272-1
Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

Job ID: 890-4272-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4272-1

Receipt
The sample was received on 3/10/2023 8:59 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 4.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS07 (890-4272-1).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48750 and analytical batch 880-48814 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-48469 and analytical batch 880-48421 was outside the upper control limits.

Method 8015MOD_NM: Diesel range hydrocarbons biased high in LCS. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-48469/2-A)

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48591 and 880-48591 and analytical batch 880-49126 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated samples are: SS07 (890-4272-1), (890-4272-A-1-C MS) and (890-4272-A-1-E MSD).

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

Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

Client Sample ID: SS07

Date Collected: 03/08/23 14:10
Date Received: 03/10/23 08:59
Sample Depth: 0.5'

Lab Sample ID: 890-4272-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/16/23 12:22	03/18/23 08:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/16/23 12:22	03/18/23 08:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/16/23 12:22	03/18/23 08:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/16/23 12:22	03/18/23 08:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/16/23 12:22	03/18/23 08:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/16/23 12:22	03/18/23 08:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*03/16/23 12:22*	*03/18/23 08:33*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/16/23 12:22*	*03/18/23 08:33*	*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			03/19/23 17:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/20/23 09:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/13/23 12:10	03/13/23 19:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		03/13/23 12:10	03/13/23 19:33	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/13/23 12:10	03/13/23 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/13/23 12:10*	*03/13/23 19:33*	*1*
o-Terphenyl	*112*		*70 - 130*	*03/13/23 12:10*	*03/13/23 19:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U F1	4.98		mg/Kg			03/20/23 02:51	1

Surrogate Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-25777-A-1-A MS	Matrix Spike	84	85										
880-25777-A-1-B MSD	Matrix Spike Duplicate	99	88										
890-4272-1	SS07	82	97										
LCS 880-48750/1-A	Lab Control Sample	105	103										
LCSD 880-48750/2-A	Lab Control Sample Dup	107	103										
MB 880-48749/5-A	Method Blank	91	90										
MB 880-48750/5-A	Method Blank	95	88										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-25807-A-1-C MS	Matrix Spike	112	91										
880-25807-A-1-D MSD	Matrix Spike Duplicate	109	89										
890-4272-1	SS07	110	112										
LCS 880-48469/2-A	Lab Control Sample	99	99										
LCSD 880-48469/3-A	Lab Control Sample Dup	107	109										
MB 880-48469/1-A	Method Blank	133 S1+	133 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48749/5-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48749

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/16/23 12:20	03/17/23 13:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*03/16/23 12:20*	*03/17/23 13:32*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/16/23 12:20*	*03/17/23 13:32*	*1*

Lab Sample ID: MB 880-48750/5-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48750

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/16/23 12:22	03/18/23 01:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/16/23 12:22*	*03/18/23 01:07*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*03/16/23 12:22*	*03/18/23 01:07*	*1*

Lab Sample ID: LCS 880-48750/1-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09818		mg/Kg		98	70 - 130		
Toluene			0.100	0.09577		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09030		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1837		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09359		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-48750/2-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09542		mg/Kg		95	70 - 130	3	35

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-48750/2-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09418		mg/Kg		94	70 - 130	2	35
Ethylbenzene			0.100	0.09008		mg/Kg		90	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1828		mg/Kg		91	70 - 130	0	35
o-Xylene			0.100	0.09319		mg/Kg		93	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-25777-A-1-A MS
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48750

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.0998	0.03377	F1	mg/Kg		34	70 - 130
Toluene	<0.00201	U F1	0.0998	0.03745	F1	mg/Kg		38	70 - 130
Ethylbenzene	<0.00201	U F1	0.0998	0.02988	F1	mg/Kg		30	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.05821	F1	mg/Kg		29	70 - 130
o-Xylene	<0.00201	U F1	0.0998	0.03159	F1	mg/Kg		32	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: 880-25777-A-1-B MSD
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 48750

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.03954	F1	mg/Kg		40	70 - 130	16	35
Toluene	<0.00201	U F1	0.0990	0.04026	F1	mg/Kg		41	70 - 130	7	35
Ethylbenzene	<0.00201	U F1	0.0990	0.03408	F1	mg/Kg		34	70 - 130	13	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	0.06759	F1	mg/Kg		34	70 - 130	15	35
o-Xylene	<0.00201	U F1	0.0990	0.03588	F1	mg/Kg		36	70 - 130	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

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

Lab Sample ID: MB 880-48469/1-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48469

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-48469/1-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48469

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		03/13/23 08:40	03/13/23 08:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*03/13/23 08:40*	*03/13/23 08:55*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*03/13/23 08:40*	*03/13/23 08:55*	*1*

Lab Sample ID: LCS 880-48469/2-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48469

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	742.1		mg/Kg		74	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1373	*+	mg/Kg		137	70 - 130		

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

Lab Sample ID: LCSD 880-48469/3-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48469

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	907.2		mg/Kg		91	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	1286		mg/Kg		129	70 - 130	7	20

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

Lab Sample ID: 880-25807-A-1-C MS
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48469

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	858.5		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *+	998	932.0		mg/Kg		89	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

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

Lab Sample ID: 880-25807-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 48421 — **Prep Batch: 48469**

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	842.2		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *+	999	916.1		mg/Kg		87	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-48591/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/20/23 01:26	1

Lab Sample ID: LCS 880-48591/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	268.8		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-48591/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	268.7		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-4272-1 MS — **Client Sample ID: SS07**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<4.98	U F1	249	281.0	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 890-4272-1 MSD — **Client Sample ID: SS07**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

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	280.1	F1	mg/Kg		111	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

GC VOA

Prep Batch: 48749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-48749/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 48750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-1	SS07	Total/NA	Solid	5035	
MB 880-48750/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48750/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48750/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25777-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-25777-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 48814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-1	SS07	Total/NA	Solid	8021B	48750
MB 880-48749/5-A	Method Blank	Total/NA	Solid	8021B	48749
MB 880-48750/5-A	Method Blank	Total/NA	Solid	8021B	48750
LCS 880-48750/1-A	Lab Control Sample	Total/NA	Solid	8021B	48750
LCSD 880-48750/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48750
880-25777-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	48750
880-25777-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	48750

Analysis Batch: 48939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-1	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 48421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-1	SS07	Total/NA	Solid	8015B NM	48469
MB 880-48469/1-A	Method Blank	Total/NA	Solid	8015B NM	48469
LCS 880-48469/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	48469
LCSD 880-48469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	48469
880-25807-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	48469
880-25807-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	48469

Prep Batch: 48469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-1	SS07	Total/NA	Solid	8015NM Prep	
MB 880-48469/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-48469/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-48469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-25807-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-25807-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 48952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-1	SS07	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 48591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-1	SS07	Soluble	Solid	DI Leach	
MB 880-48591/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-48591/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-48591/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4272-1 MS	SS07	Soluble	Solid	DI Leach	
890-4272-1 MSD	SS07	Soluble	Solid	DI Leach	

Analysis Batch: 49126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-1	SS07	Soluble	Solid	300.0	48591
MB 880-48591/1-A	Method Blank	Soluble	Solid	300.0	48591
LCS 880-48591/2-A	Lab Control Sample	Soluble	Solid	300.0	48591
LCSD 880-48591/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	48591
890-4272-1 MS	SS07	Soluble	Solid	300.0	48591
890-4272-1 MSD	SS07	Soluble	Solid	300.0	48591

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

Client Sample ID: SS07

Date Collected: 03/08/23 14:10
Date Received: 03/10/23 08:59

Lab Sample ID: 890-4272-1

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	48750	03/16/23 12:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48814	03/18/23 08:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48939	03/19/23 17:50	AJ	EET MID
Total/NA	Analysis	8015 NM		1			48952	03/20/23 09:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	48469	03/13/23 12:10	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48421	03/13/23 19:33	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	48591	03/14/23 11:19	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49126	03/20/23 02:51	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
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: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4272-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4272-1	SS07	Solid	03/08/23 14:10	03/10/23 08:59	0.5'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	Maverick Buckeye 43-01	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057035	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	4.6
Total Containers:		Corrected Temperature:	4.4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
SS07	S	3/8/2023	14:10	0.5'	Grab	1		X	X	X

Parameters

890-4272 Chain of Custody

Preservative Codes

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

Sample Comments

NAPP2230752440

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DN	M. O'Dell		2		
3	Amanda Stout	3-10-23 0859			
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4272-1
SDG Number: Lea County NM

Login Number: 4272
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	Refer to job narrative
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4272-1
SDG Number: Lea County NM

Login Number: 4272
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/13/23 08:24 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/21/2023 2:24:51 PM

JOB DESCRIPTION

Maverick Buckeye 43-01
SDG NUMBER Lea County NM

JOB NUMBER

890-4273-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

Eurofins Carlsbad

Job Notes

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

Authorization

Generated
3/21/2023 2:24:51 PM

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

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Laboratory Job ID: 890-4273-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-4273-1
Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

Job ID: 890-4273-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4273-1

Receipt
The sample was received on 3/10/2023 8:59 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 4.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-4273-1).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48750 and analytical batch 880-48814 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-48469 and analytical batch 880-48421 was outside the upper control limits.

Method 8015MOD_NM: Diesel range hydrocarbons biased high in LCS. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-48469/2-A)

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48591 and 880-48591 and analytical batch 880-49126 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated samples are: SS06 (890-4273-1), (890-4272-A-1-B), (890-4272-A-1-C MS) and (890-4272-A-1-E MSD).

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

Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

Client Sample ID: SS06

Date Collected: 03/08/23 14:00
Date Received: 03/10/23 08:59
Sample Depth: 0.5'

Lab Sample ID: 890-4273-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/16/23 12:22	03/18/23 09:22	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/16/23 12:22	03/18/23 09:22	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/16/23 12:22	03/18/23 09:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/16/23 12:22	03/18/23 09:22	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/16/23 12:22	03/18/23 09:22	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/16/23 12:22	03/18/23 09:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*03/16/23 12:22*	*03/18/23 09:22*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*03/16/23 12:22*	*03/18/23 09:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			03/19/23 17:50	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/21/23 09:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/13/23 12:10	03/13/23 19:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0		mg/Kg		03/13/23 12:10	03/13/23 19:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/13/23 12:10	03/13/23 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*03/13/23 12:10*	*03/13/23 19:55*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/13/23 12:10*	*03/13/23 19:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96		mg/Kg			03/20/23 03:06	1

Surrogate Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-25777-A-1-A MS	Matrix Spike	84	85										
880-25777-A-1-B MSD	Matrix Spike Duplicate	99	88										
890-4273-1	SS06	96	89										
LCS 880-48750/1-A	Lab Control Sample	105	103										
LCSD 880-48750/2-A	Lab Control Sample Dup	107	103										
MB 880-48749/5-A	Method Blank	91	90										
MB 880-48750/5-A	Method Blank	95	88										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-25807-A-1-C MS	Matrix Spike	112	91										
880-25807-A-1-D MSD	Matrix Spike Duplicate	109	89										
890-4273-1	SS06	93	99										
LCS 880-48469/2-A	Lab Control Sample	99	99										
LCSD 880-48469/3-A	Lab Control Sample Dup	107	109										
MB 880-48469/1-A	Method Blank	133 S1+	133 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48749/5-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48749

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:20	03/17/23 13:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/16/23 12:20	03/17/23 13:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*03/16/23 12:20*	*03/17/23 13:32*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*03/16/23 12:20*	*03/17/23 13:32*	*1*

Lab Sample ID: MB 880-48750/5-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48750

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/16/23 12:22	03/18/23 01:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/16/23 12:22	03/18/23 01:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/16/23 12:22*	*03/18/23 01:07*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*03/16/23 12:22*	*03/18/23 01:07*	*1*

Lab Sample ID: LCS 880-48750/1-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09818		mg/Kg		98	70 - 130		
Toluene			0.100	0.09577		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09030		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1837		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09359		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-48750/2-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09542		mg/Kg		95	70 - 130	3	35

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-48750/2-A
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48750

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09418		mg/Kg		94	70 - 130	2	35
Ethylbenzene			0.100	0.09008		mg/Kg		90	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1828		mg/Kg		91	70 - 130	0	35
o-Xylene			0.100	0.09319		mg/Kg		93	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-25777-A-1-A MS
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48750

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1	0.0998	0.03377	F1	mg/Kg		34	70 - 130
Toluene	<0.00201	U F1	0.0998	0.03745	F1	mg/Kg		38	70 - 130
Ethylbenzene	<0.00201	U F1	0.0998	0.02988	F1	mg/Kg		30	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.05821	F1	mg/Kg		29	70 - 130
o-Xylene	<0.00201	U F1	0.0998	0.03159	F1	mg/Kg		32	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: 880-25777-A-1-B MSD
Matrix: Solid
Analysis Batch: 48814

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 48750

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.03954	F1	mg/Kg		40	70 - 130	16	35
Toluene	<0.00201	U F1	0.0990	0.04026	F1	mg/Kg		41	70 - 130	7	35
Ethylbenzene	<0.00201	U F1	0.0990	0.03408	F1	mg/Kg		34	70 - 130	13	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	0.06759	F1	mg/Kg		34	70 - 130	15	35
o-Xylene	<0.00201	U F1	0.0990	0.03588	F1	mg/Kg		36	70 - 130	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

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

Lab Sample ID: MB 880-48469/1-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48469

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-48469/1-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48469

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		03/13/23 08:40	03/13/23 08:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*03/13/23 08:40*	*03/13/23 08:55*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*03/13/23 08:40*	*03/13/23 08:55*	*1*

Lab Sample ID: LCS 880-48469/2-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48469

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	742.1		mg/Kg		74	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1373	*+	mg/Kg		137	70 - 130		

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

Lab Sample ID: LCSD 880-48469/3-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48469

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	907.2		mg/Kg		91	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	1286		mg/Kg		129	70 - 130	7	20

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

Lab Sample ID: 880-25807-A-1-C MS
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48469

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	858.5		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *+	998	932.0		mg/Kg		89	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

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

Lab Sample ID: 880-25807-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 48421 — **Prep Batch: 48469**

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	842.2		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *+	999	916.1		mg/Kg		87	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-48591/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/20/23 01:26	1

Lab Sample ID: LCS 880-48591/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	268.8		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-48591/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	268.7		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-4272-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<4.98	U F1	249	281.0	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 890-4272-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 49126

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	280.1	F1	mg/Kg		111	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

GC VOA

Prep Batch: 48749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-48749/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 48750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4273-1	SS06	Total/NA	Solid	5035	
MB 880-48750/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48750/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48750/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25777-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-25777-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 48814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4273-1	SS06	Total/NA	Solid	8021B	48750
MB 880-48749/5-A	Method Blank	Total/NA	Solid	8021B	48749
MB 880-48750/5-A	Method Blank	Total/NA	Solid	8021B	48750
LCS 880-48750/1-A	Lab Control Sample	Total/NA	Solid	8021B	48750
LCSD 880-48750/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48750
880-25777-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	48750
880-25777-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	48750

Analysis Batch: 48939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4273-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 48421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4273-1	SS06	Total/NA	Solid	8015B NM	48469
MB 880-48469/1-A	Method Blank	Total/NA	Solid	8015B NM	48469
LCS 880-48469/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	48469
LCSD 880-48469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	48469
880-25807-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	48469
880-25807-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	48469

Prep Batch: 48469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4273-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-48469/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-48469/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-48469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-25807-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-25807-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4273-1	SS06	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 48591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4273-1	SS06	Soluble	Solid	DI Leach	
MB 880-48591/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-48591/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-48591/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4272-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4272-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 49126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4273-1	SS06	Soluble	Solid	300.0	48591
MB 880-48591/1-A	Method Blank	Soluble	Solid	300.0	48591
LCS 880-48591/2-A	Lab Control Sample	Soluble	Solid	300.0	48591
LCSD 880-48591/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	48591
890-4272-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	48591
890-4272-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	48591

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

Client Sample ID: SS06

Date Collected: 03/08/23 14:00
Date Received: 03/10/23 08:59

Lab Sample ID: 890-4273-1

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	48750	03/16/23 12:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48814	03/18/23 09:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			48939	03/19/23 17:50	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49094	03/21/23 09:46	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	48469	03/13/23 12:10	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48421	03/13/23 19:55	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	48591	03/14/23 11:19	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49126	03/20/23 03:06	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
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: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4273-1	SS06	Solid	03/08/23 14:00	03/10/23 08:59	0.5'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page (of (

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

Work Order Comments

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

Project Name:	Maverick Buckeye 43-01	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057035	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	4.6
Total Containers:		Corrected Temperature:	4.4

ANALYSIS REQUEST

Preservative Codes

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

890-4273 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	Parameters: TPH (8015)	Parameters: BTEX (8021)	Sample Comments
SS06	S	3/8/2023	14:00	0.5'	Grab	1		X	X	X	
											NAPP2230752440

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DN	M. O'Dell		2		
3	Amanda Stelt	3.10.23 0859			
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4273-1
SDG Number: Lea County NM

Login Number: 4273
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	Refer to job narrative
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4273-1
SDG Number: Lea County NM

Login Number: 4273
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/13/23 08:24 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/21/2023 2:24:55 PM

JOB DESCRIPTION

Maverick Buckeye 43-01
SDG NUMBER Lea County NM

JOB NUMBER

890-4274-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

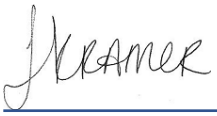
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Laboratory Job ID: 890-4274-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
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
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

Job ID: 890-4274-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4274-1

Receipt
The sample was received on 3/10/2023 8:59 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 4.0°C

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-4274-1).

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-48469 and analytical batch 880-48421 was outside the upper control limits.

Method 8015MOD_NM: Diesel range hydrocarbons biased high in LCS. Since only an acceptable LCS or LCSD is required per the method, the data has been qualified and reported.(LCS 880-48469/2-A)

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-48591 and 880-48591 and analytical batch 880-49126 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.The associated samples are: SS05 (890-4274-1), (890-4272-A-1-B), (890-4272-A-1-C MS) and (890-4272-A-1-E MSD).

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

Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

Client Sample ID: SS05

Date Collected: 03/08/23 13:50
Date Received: 03/10/23 08:59
Sample Depth: 0.5

Lab Sample ID: 890-4274-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/16/23 13:03	03/19/23 17:56	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/16/23 13:03	03/19/23 17:56	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/16/23 13:03	03/19/23 17:56	1
m-Xylene & p-Xylene	**0.00828**		0.00396		mg/Kg		03/16/23 13:03	03/19/23 17:56	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/16/23 13:03	03/19/23 17:56	1
Xylenes, Total	**0.00828**		0.00396		mg/Kg		03/16/23 13:03	03/19/23 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/16/23 13:03*	*03/19/23 17:56*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*03/16/23 13:03*	*03/19/23 17:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00828**		0.00396		mg/Kg			03/21/23 09:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			03/21/23 09:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		03/13/23 12:10	03/13/23 20:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9		mg/Kg		03/13/23 12:10	03/13/23 20:17	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		03/13/23 12:10	03/13/23 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*03/13/23 12:10*	*03/13/23 20:17*	*1*
o-Terphenyl	*95*		*70 - 130*	*03/13/23 12:10*	*03/13/23 20:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.01**		5.04		mg/Kg			03/20/23 03:11	1

Surrogate Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4259-A-1-E MS	Matrix Spike	111	83
890-4259-A-1-F MSD	Matrix Spike Duplicate	105	104
890-4274-1	SS05	104	70
LCS 880-48751/1-A	Lab Control Sample	112	99
LCSD 880-48751/2-A	Lab Control Sample Dup	110	102
MB 880-48751/5-A	Method Blank	72	86

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-25807-A-1-C MS	Matrix Spike	112	91
880-25807-A-1-D MSD	Matrix Spike Duplicate	109	89
890-4274-1	SS05	92	95
LCS 880-48469/2-A	Lab Control Sample	99	99
LCSD 880-48469/3-A	Lab Control Sample Dup	107	109
MB 880-48469/1-A	Method Blank	133 S1+	133 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48751/5-A
Matrix: Solid
Analysis Batch: 48915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48751

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/16/23 13:03	03/19/23 14:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/16/23 13:03	03/19/23 14:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/16/23 13:03	03/19/23 14:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/16/23 13:03	03/19/23 14:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/16/23 13:03	03/19/23 14:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/16/23 13:03	03/19/23 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*03/16/23 13:03*	*03/19/23 14:51*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*03/16/23 13:03*	*03/19/23 14:51*	*1*

Lab Sample ID: LCS 880-48751/1-A
Matrix: Solid
Analysis Batch: 48915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48751

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1076		mg/Kg		108	70 - 130		
Toluene			0.100	0.1074		mg/Kg		107	70 - 130		
Ethylbenzene			0.100	0.1109		mg/Kg		111	70 - 130		
m-Xylene & p-Xylene			0.200	0.2528		mg/Kg		126	70 - 130		
o-Xylene			0.100	0.1240		mg/Kg		124	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-48751/2-A
Matrix: Solid
Analysis Batch: 48915

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48751

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	3	35
Toluene			0.100	0.1005		mg/Kg		100	70 - 130	7	35
Ethylbenzene			0.100	0.1054		mg/Kg		105	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2343		mg/Kg		117	70 - 130	8	35
o-Xylene			0.100	0.1146		mg/Kg		115	70 - 130	8	35

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

Lab Sample ID: 890-4259-A-1-E MS
Matrix: Solid
Analysis Batch: 48915

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48751

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.101	0.1033		mg/Kg		102	70 - 130		
Toluene	<0.00201	U	0.101	0.1049		mg/Kg		104	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

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

Lab Sample ID: 890-4259-A-1-E MS
Matrix: Solid
Analysis Batch: 48915

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48751

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.1086		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.2384		mg/Kg		118	70 - 130
o-Xylene	<0.00201	U	0.101	0.1161		mg/Kg		115	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*

Lab Sample ID: 890-4259-A-1-F MSD
Matrix: Solid
Analysis Batch: 48915

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 48751

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	0.1172		mg/Kg		118	70 - 130	13	35
Toluene	<0.00201	U	0.0990	0.1059		mg/Kg		107	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0990	0.1083		mg/Kg		109	70 - 130	0	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.2330		mg/Kg		118	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.1132		mg/Kg		114	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-48469/1-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 48469

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/13/23 08:40	03/13/23 08:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*03/13/23 08:40*	*03/13/23 08:55*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*03/13/23 08:40*	*03/13/23 08:55*	*1*

Lab Sample ID: LCS 880-48469/2-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48469

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	742.1		mg/Kg		74	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1373	*+	mg/Kg		137	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-48469/2-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 48469

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

Lab Sample ID: LCSD 880-48469/3-A
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 48469

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	907.2		mg/Kg		91	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	1286		mg/Kg		129	70 - 130	7	20

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

Lab Sample ID: 880-25807-A-1-C MS
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 48469

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	858.5		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U *+	998	932.0		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 880-25807-A-1-D MSD
Matrix: Solid
Analysis Batch: 48421

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 48469

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	842.2		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *+	999	916.1		mg/Kg		87	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	89		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-48591/1-A
Matrix: Solid
Analysis Batch: 49126

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			03/20/23 01:26	1

Lab Sample ID: LCS 880-48591/2-A
Matrix: Solid
Analysis Batch: 49126

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	268.8		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-48591/3-A
Matrix: Solid
Analysis Batch: 49126

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	268.7		mg/Kg		107	90 - 110	0	20

Lab Sample ID: 890-4272-A-1-C MS
Matrix: Solid
Analysis Batch: 49126

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	281.0	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 890-4272-A-1-E MSD
Matrix: Solid
Analysis Batch: 49126

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	280.1	F1	mg/Kg		111	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

GC VOA

Prep Batch: 48751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4274-1	SS05	Total/NA	Solid	5035	
MB 880-48751/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-48751/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-48751/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4259-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-4259-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 48915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4274-1	SS05	Total/NA	Solid	8021B	48751
MB 880-48751/5-A	Method Blank	Total/NA	Solid	8021B	48751
LCS 880-48751/1-A	Lab Control Sample	Total/NA	Solid	8021B	48751
LCSD 880-48751/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	48751
890-4259-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	48751
890-4259-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	48751

Analysis Batch: 49092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4274-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 48421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4274-1	SS05	Total/NA	Solid	8015B NM	48469
MB 880-48469/1-A	Method Blank	Total/NA	Solid	8015B NM	48469
LCS 880-48469/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	48469
LCSD 880-48469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	48469
880-25807-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	48469
880-25807-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	48469

Prep Batch: 48469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4274-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-48469/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-48469/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-48469/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-25807-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-25807-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4274-1	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 48591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4274-1	SS05	Soluble	Solid	DI Leach	
MB 880-48591/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-48591/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-48591/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 48591 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4272-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4272-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 49126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4274-1	SS05	Soluble	Solid	300.0	48591
MB 880-48591/1-A	Method Blank	Soluble	Solid	300.0	48591
LCS 880-48591/2-A	Lab Control Sample	Soluble	Solid	300.0	48591
LCSD 880-48591/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	48591
890-4272-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	48591
890-4272-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	48591

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

Client Sample ID: SS05

Date Collected: 03/08/23 13:50
Date Received: 03/10/23 08:59

Lab Sample ID: 890-4274-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	48751	03/16/23 13:03	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	48915	03/19/23 17:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49092	03/21/23 09:30	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49094	03/21/23 09:46	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	48469	03/13/23 12:10	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	48421	03/13/23 20:17	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	48591	03/14/23 11:19	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49126	03/20/23 03:11	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
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: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4274-1	SS05	Solid	03/08/23 13:50	03/10/23 08:59	0.5

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Chain of Custody

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

Work Order No: _____

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

Work Order Comments

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

Project Name:	Maverick Buckeye 43-01	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057035	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TAM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	4.6
Total Containers:		Corrected Temperature:	4.4

ANALYSIS REQUEST

Preservative Codes

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

890-4274 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	Parameters: TPH (8015)	Parameters: BTEX (8021	Sample Comments
SS05	S	3/8/2023	13:50	0.5'	Grab	1		X	X	X	
											NAPP2230752440

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DN			2		
3		3.10.23 0859	4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4274-1
SDG Number: Lea County NM

Login Number: 4274
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	Refer to job narrative
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
TCEQ Mtd 1005 soil sample was frozen/delivered for prep within 48H of sampling.	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4274-1
SDG Number: Lea County NM

Login Number: 4274
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/13/23 08:24 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/7/2023 6:07:40 PM

JOB DESCRIPTION

Maverick Buckeye 43-01
SDG NUMBER 03D2057035

JOB NUMBER

880-26508-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

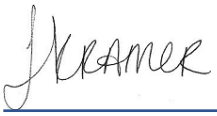
my EOL

Eurofins Midland

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Laboratory Job ID: 880-26508-1
SDG: 03D2057035

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Job ID: 880-26508-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-26508-1

Receipt
The samples were received on 3/28/2023 8:32 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 3.0°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: FS06 (880-26508-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-50231 and analytical batch 880-50458 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-50011/2-A) and (LCSD 880-50011/3-A). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Client Sample ID: FS05

Lab Sample ID: 880-26508-1
Matrix: Solid
Date Collected: 03/24/23 10:40
Date Received: 03/28/23 08:32
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		04/03/23 15:44	04/06/23 18:22	1
Toluene	**0.0364**		0.00202		mg/Kg		04/03/23 15:44	04/06/23 18:22	1
Ethylbenzene	**0.0316**		0.00202		mg/Kg		04/03/23 15:44	04/06/23 18:22	1
m-Xylene & p-Xylene	**0.0221**		0.00404		mg/Kg		04/03/23 15:44	04/06/23 18:22	1
o-Xylene	**0.0108**		0.00202		mg/Kg		04/03/23 15:44	04/06/23 18:22	1
Xylenes, Total	**0.0329**		0.00404		mg/Kg		04/03/23 15:44	04/06/23 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*04/03/23 15:44*	*04/06/23 18:22*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*04/03/23 15:44*	*04/06/23 18:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.101**		0.00404		mg/Kg			04/07/23 18:45	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			04/03/23 14:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 03:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 03:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 03:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*03/31/23 09:25*	*04/01/23 03:40*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/31/23 09:25*	*04/01/23 03:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		4.96		mg/Kg			04/06/23 16:47	1

Client Sample ID: FS06

Lab Sample ID: 880-26508-2
Matrix: Solid
Date Collected: 03/24/23 10:50
Date Received: 03/28/23 08:32
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		04/03/23 15:44	04/06/23 18:43	1
Toluene	**0.0138**		0.00200		mg/Kg		04/03/23 15:44	04/06/23 18:43	1
Ethylbenzene	**0.00771**		0.00200		mg/Kg		04/03/23 15:44	04/06/23 18:43	1
m-Xylene & p-Xylene	**0.00564**		0.00399		mg/Kg		04/03/23 15:44	04/06/23 18:43	1
o-Xylene	**0.00311**		0.00200		mg/Kg		04/03/23 15:44	04/06/23 18:43	1
Xylenes, Total	**0.00875**		0.00399		mg/Kg		04/03/23 15:44	04/06/23 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*04/03/23 15:44*	*04/06/23 18:43*	*1*

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Client Sample ID: FS06

Date Collected: 03/24/23 10:50
Date Received: 03/28/23 08:32
Sample Depth: 1'

Lab Sample ID: 880-26508-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*04/03/23 15:44*	*04/06/23 18:43*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0303**		0.00399		mg/Kg			04/07/23 18:45	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			04/03/23 14:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 03:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 03:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/31/23 09:25*	*04/01/23 03:18*	*1*
o-Terphenyl	*116*		*70 - 130*	*03/31/23 09:25*	*04/01/23 03:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**126**		4.96		mg/Kg			04/06/23 17:01	1

Client Sample ID: FS07

Date Collected: 03/24/23 11:00
Date Received: 03/28/23 08:32
Sample Depth: 1'

Lab Sample ID: 880-26508-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/05/23 09:22	04/05/23 15:44	1
Toluene	**0.0193**		0.00199		mg/Kg		04/05/23 09:22	04/05/23 15:44	1
Ethylbenzene	**0.0116**		0.00199		mg/Kg		04/05/23 09:22	04/05/23 15:44	1
m-Xylene & p-Xylene	**0.00764**		0.00398		mg/Kg		04/05/23 09:22	04/05/23 15:44	1
o-Xylene	**0.00300**		0.00199		mg/Kg		04/05/23 09:22	04/05/23 15:44	1
Xylenes, Total	**0.0106**		0.00398		mg/Kg		04/05/23 09:22	04/05/23 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*04/05/23 09:22*	*04/05/23 15:44*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*04/05/23 09:22*	*04/05/23 15:44*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0415**		0.00398		mg/Kg			04/05/23 16:40	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			04/03/23 14:09	1

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Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Client Sample ID: FS07

Lab Sample ID: 880-26508-3
Matrix: Solid
Date Collected: 03/24/23 11:00
Date Received: 03/28/23 08:32
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 04:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 04:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/31/23 09:25	04/01/23 04:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*03/31/23 09:25*	*04/01/23 04:01*	*1*
o-Terphenyl	*101*		*70 - 130*	*03/31/23 09:25*	*04/01/23 04:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.9**		5.03		mg/Kg			04/06/23 17:06	1

Client Sample ID: FS08

Lab Sample ID: 880-26508-4
Matrix: Solid
Date Collected: 03/24/23 11:10
Date Received: 03/28/23 08:32
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00225**		0.00201		mg/Kg		04/05/23 09:22	04/05/23 16:05	1
Toluene	**0.0275**		0.00201		mg/Kg		04/05/23 09:22	04/05/23 16:05	1
Ethylbenzene	**0.0137**		0.00201		mg/Kg		04/05/23 09:22	04/05/23 16:05	1
m-Xylene & p-Xylene	**0.00931**		0.00402		mg/Kg		04/05/23 09:22	04/05/23 16:05	1
o-Xylene	**0.00384**		0.00201		mg/Kg		04/05/23 09:22	04/05/23 16:05	1
Xylenes, Total	**0.0132**		0.00402		mg/Kg		04/05/23 09:22	04/05/23 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*04/05/23 09:22*	*04/05/23 16:05*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*04/05/23 09:22*	*04/05/23 16:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0566**		0.00402		mg/Kg			04/05/23 16:40	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			04/03/23 14:09	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		03/31/23 09:25	04/01/23 02:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/31/23 09:25	04/01/23 02:57	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/31/23 09:25	04/01/23 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*03/31/23 09:25*	*04/01/23 02:57*	*1*
o-Terphenyl	*102*		*70 - 130*	*03/31/23 09:25*	*04/01/23 02:57*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Client Sample ID: FS08

Date Collected: 03/24/23 11:10
Date Received: 03/28/23 08:32
Sample Depth: 1'

Lab Sample ID: 880-26508-4

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.0		5.04		mg/Kg			04/06/23 17:11	1

Surrogate Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

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)
880-26508-1	FS05	101	101
880-26508-2	FS06	67 S1-	79
880-26508-3	FS07	95	104
880-26508-4	FS08	77	84
LCS 880-50209/1-A	Lab Control Sample	107	114
LCS 880-50231/1-A	Lab Control Sample	106	108
LCSD 880-50209/2-A	Lab Control Sample Dup	86	118
LCSD 880-50231/2-A	Lab Control Sample Dup	105	110
MB 880-49835/5-A	Method Blank	78	94
MB 880-50209/5-A	Method Blank	69 S1-	97
MB 880-50231/5-A	Method Blank	72	100

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)
880-26508-1	FS05	88	101
880-26508-2	FS06	105	116
880-26508-3	FS07	88	101
880-26508-4	FS08	88	102
LCS 880-50011/2-A	Lab Control Sample	121	146 S1+
LCSD 880-50011/3-A	Lab Control Sample Dup	123	149 S1+
MB 880-50011/1-A	Method Blank	105	130

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49835/5-A
Matrix: Solid
Analysis Batch: 50285

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49835

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/29/23 12:18	04/04/23 21:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/29/23 12:18	04/04/23 21:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/29/23 12:18	04/04/23 21:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/29/23 12:18	04/04/23 21:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/29/23 12:18	04/04/23 21:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/29/23 12:18	04/04/23 21:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*03/29/23 12:18*	*04/04/23 21:45*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*03/29/23 12:18*	*04/04/23 21:45*	*1*

Lab Sample ID: MB 880-50209/5-A
Matrix: Solid
Analysis Batch: 50285

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50209

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/03/23 14:18	04/05/23 08:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/03/23 14:18	04/05/23 08:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/03/23 14:18	04/05/23 08:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/03/23 14:18	04/05/23 08:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/03/23 14:18	04/05/23 08:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/03/23 14:18	04/05/23 08:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*04/03/23 14:18*	*04/05/23 08:52*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/03/23 14:18*	*04/05/23 08:52*	*1*

Lab Sample ID: LCS 880-50209/1-A
Matrix: Solid
Analysis Batch: 50285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50209

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1027		mg/Kg		103	70 - 130		
Toluene			0.100	0.09639		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09214		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1893		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.09706		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: LCSD 880-50209/2-A
Matrix: Solid
Analysis Batch: 50285

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50209

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1069		mg/Kg		107	70 - 130	4	35

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

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

Lab Sample ID: LCSD 880-50209/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50285 — **Prep Batch: 50209**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08523		mg/Kg		85	70 - 130	12	35
Ethylbenzene			0.100	0.07724		mg/Kg		77	70 - 130	18	35
m-Xylene & p-Xylene			0.200	0.1525		mg/Kg		76	70 - 130	22	35
o-Xylene			0.100	0.07833		mg/Kg		78	70 - 130	21	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: MB 880-50231/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50458 — **Prep Batch: 50231**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/03/23 15:44	04/06/23 10:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/03/23 15:44	04/06/23 10:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/03/23 15:44	04/06/23 10:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/03/23 15:44	04/06/23 10:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/03/23 15:44	04/06/23 10:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/03/23 15:44	04/06/23 10:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*04/03/23 15:44*	*04/06/23 10:49*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*04/03/23 15:44*	*04/06/23 10:49*	*1*

Lab Sample ID: LCS 880-50231/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50458 — **Prep Batch: 50231**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene			0.100	0.1108		mg/Kg		111	70 - 130
Toluene			0.100	0.09947		mg/Kg		99	70 - 130
Ethylbenzene			0.100	0.09904		mg/Kg		99	70 - 130
m-Xylene & p-Xylene			0.200	0.2101		mg/Kg		105	70 - 130
o-Xylene			0.100	0.1062		mg/Kg		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-50231/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50458 — **Prep Batch: 50231**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1217		mg/Kg		122	70 - 130	9	35
Toluene			0.100	0.1090		mg/Kg		109	70 - 130	9	35
Ethylbenzene			0.100	0.1071		mg/Kg		107	70 - 130	8	35

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

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

Lab Sample ID: LCSD 880-50231/2-A
Matrix: Solid
Analysis Batch: 50458

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50231

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene			0.200	0.2256		mg/Kg		113	70 - 130	7	35
o-Xylene			0.100	0.1133		mg/Kg		113	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

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

Lab Sample ID: MB 880-50011/1-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50011

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/31/23 09:25	03/31/23 20:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/31/23 09:25	03/31/23 20:55	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/31/23 09:25	03/31/23 20:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/31/23 09:25*	*03/31/23 20:55*	*1*
o-Terphenyl	*130*		*70 - 130*	*03/31/23 09:25*	*03/31/23 20:55*	*1*

Lab Sample ID: LCS 880-50011/2-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50011

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	917.2		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	879.5		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*146*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-50011/3-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50011

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	867.1		mg/Kg		87	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	808.8		mg/Kg		81	70 - 130	8	20

QC Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

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

Lab Sample ID: LCSD 880-50011/3-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50011

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	149	S1+	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50413/1-A
Matrix: Solid
Analysis Batch: 50526

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			04/06/23 15:05	1

Lab Sample ID: LCS 880-50413/2-A
Matrix: Solid
Analysis Batch: 50526

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248.3		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-50413/3-A
Matrix: Solid
Analysis Batch: 50526

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	249.2		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

GC VOA

Prep Batch: 49835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-49835/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 50209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-3	FS07	Total/NA	Solid	5035	
880-26508-4	FS08	Total/NA	Solid	5035	
MB 880-50209/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-50209/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50209/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 50231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-1	FS05	Total/NA	Solid	5035	
880-26508-2	FS06	Total/NA	Solid	5035	
MB 880-50231/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-50231/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50231/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 50285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-3	FS07	Total/NA	Solid	8021B	50209
880-26508-4	FS08	Total/NA	Solid	8021B	50209
MB 880-49835/5-A	Method Blank	Total/NA	Solid	8021B	49835
MB 880-50209/5-A	Method Blank	Total/NA	Solid	8021B	50209
LCS 880-50209/1-A	Lab Control Sample	Total/NA	Solid	8021B	50209
LCSD 880-50209/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50209

Analysis Batch: 50429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-1	FS05	Total/NA	Solid	Total BTEX	
880-26508-2	FS06	Total/NA	Solid	Total BTEX	
880-26508-3	FS07	Total/NA	Solid	Total BTEX	
880-26508-4	FS08	Total/NA	Solid	Total BTEX	

Analysis Batch: 50458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-1	FS05	Total/NA	Solid	8021B	50231
880-26508-2	FS06	Total/NA	Solid	8021B	50231
MB 880-50231/5-A	Method Blank	Total/NA	Solid	8021B	50231
LCS 880-50231/1-A	Lab Control Sample	Total/NA	Solid	8021B	50231
LCSD 880-50231/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50231

GC Semi VOA

Analysis Batch: 49995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-1	FS05	Total/NA	Solid	8015B NM	50011
880-26508-2	FS06	Total/NA	Solid	8015B NM	50011
880-26508-3	FS07	Total/NA	Solid	8015B NM	50011
880-26508-4	FS08	Total/NA	Solid	8015B NM	50011
MB 880-50011/1-A	Method Blank	Total/NA	Solid	8015B NM	50011

QC Association Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

GC Semi VOA (Continued)

Analysis Batch: 49995 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-50011/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50011
LCSD 880-50011/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50011

Prep Batch: 50011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-1	FS05	Total/NA	Solid	8015NM Prep	
880-26508-2	FS06	Total/NA	Solid	8015NM Prep	
880-26508-3	FS07	Total/NA	Solid	8015NM Prep	
880-26508-4	FS08	Total/NA	Solid	8015NM Prep	
MB 880-50011/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50011/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50011/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 50205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-1	FS05	Total/NA	Solid	8015 NM	
880-26508-2	FS06	Total/NA	Solid	8015 NM	
880-26508-3	FS07	Total/NA	Solid	8015 NM	
880-26508-4	FS08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-1	FS05	Soluble	Solid	DI Leach	
880-26508-2	FS06	Soluble	Solid	DI Leach	
880-26508-3	FS07	Soluble	Solid	DI Leach	
880-26508-4	FS08	Soluble	Solid	DI Leach	
MB 880-50413/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50413/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50413/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 50526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26508-1	FS05	Soluble	Solid	300.0	50413
880-26508-2	FS06	Soluble	Solid	300.0	50413
880-26508-3	FS07	Soluble	Solid	300.0	50413
880-26508-4	FS08	Soluble	Solid	300.0	50413
MB 880-50413/1-A	Method Blank	Soluble	Solid	300.0	50413
LCS 880-50413/2-A	Lab Control Sample	Soluble	Solid	300.0	50413
LCSD 880-50413/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50413

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Client Sample ID: FS05

Lab Sample ID: 880-26508-1

Date Collected: 03/24/23 10:40
Matrix: Solid
Date Received: 03/28/23 08:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			50231	MNR	EET MID	04/03/23 15:44
Total/NA	Analysis	8021B		1	50458	MNR	EET MID	04/06/23 18:22
Total/NA	Analysis	Total BTEX		1	50429	AJ	EET MID	04/07/23 18:45
Total/NA	Analysis	8015 NM		1	50205	SM	EET MID	04/03/23 14:09
Total/NA	Prep	8015NM Prep			50011	AJ	EET MID	03/31/23 09:25
Total/NA	Analysis	8015B NM		1	49995	SM	EET MID	04/01/23 03:40
Soluble	Leach	DI Leach			50413	KS	EET MID	04/05/23 14:42
Soluble	Analysis	300.0		1	50526	SMC	EET MID	04/06/23 16:47

Client Sample ID: FS06

Lab Sample ID: 880-26508-2

Date Collected: 03/24/23 10:50
Matrix: Solid
Date Received: 03/28/23 08:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			50231	MNR	EET MID	04/03/23 15:44
Total/NA	Analysis	8021B		1	50458	MNR	EET MID	04/06/23 18:43
Total/NA	Analysis	Total BTEX		1	50429	AJ	EET MID	04/07/23 18:45
Total/NA	Analysis	8015 NM		1	50205	SM	EET MID	04/03/23 14:09
Total/NA	Prep	8015NM Prep			50011	AJ	EET MID	03/31/23 09:25
Total/NA	Analysis	8015B NM		1	49995	SM	EET MID	04/01/23 03:18
Soluble	Leach	DI Leach			50413	KS	EET MID	04/05/23 14:42
Soluble	Analysis	300.0		1	50526	SMC	EET MID	04/06/23 17:01

Client Sample ID: FS07

Lab Sample ID: 880-26508-3

Date Collected: 03/24/23 11:00
Matrix: Solid
Date Received: 03/28/23 08:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			50209	MNR	EET MID	04/05/23 09:22
Total/NA	Analysis	8021B		1	50285	MNR	EET MID	04/05/23 15:44
Total/NA	Analysis	Total BTEX		1	50429	AJ	EET MID	04/05/23 16:40
Total/NA	Analysis	8015 NM		1	50205	SM	EET MID	04/03/23 14:09
Total/NA	Prep	8015NM Prep			50011	AJ	EET MID	03/31/23 09:25
Total/NA	Analysis	8015B NM		1	49995	SM	EET MID	04/01/23 04:01
Soluble	Leach	DI Leach			50413	KS	EET MID	04/05/23 14:42
Soluble	Analysis	300.0		1	50526	SMC	EET MID	04/06/23 17:06

Client Sample ID: FS08

Lab Sample ID: 880-26508-4

Date Collected: 03/24/23 11:10
Matrix: Solid
Date Received: 03/28/23 08:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			50209	MNR	EET MID	04/05/23 09:22
Total/NA	Analysis	8021B		1	50285	MNR	EET MID	04/05/23 16:05
Total/NA	Analysis	Total BTEX		1	50429	AJ	EET MID	04/05/23 16:40

Lab Chronicle

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Client Sample ID: FS08

Date Collected: 03/24/23 11:10
Date Received: 03/28/23 08:32

Lab Sample ID: 880-26508-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	50205	SM	EET MID	04/03/23 14:09
Total/NA	Prep	8015NM Prep			50011	AJ	EET MID	03/31/23 09:25
Total/NA	Analysis	8015B NM		1	49995	SM	EET MID	04/01/23 02:57
Soluble	Leach	DI Leach			50413	KS	EET MID	04/05/23 14:42
Soluble	Analysis	300.0		1	50526	SMC	EET MID	04/06/23 17:11

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

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: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1
SDG: 03D2057035

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-26508-1	FS05	Solid	03/24/23 10:40	03/28/23 08:32	1'
880-26508-2	FS06	Solid	03/24/23 10:50	03/28/23 08:32	1'
880-26508-3	FS07	Solid	03/24/23 11:00	03/28/23 08:32	1'
880-26508-4	FS08	Solid	03/24/23 11:10	03/28/23 08:32	1'

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Chain of Custody

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

Work Order No: 26508

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 Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum com, dnikanorov@ensolum com

Work Order Comments

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

Project Name:	Maverick Buckeye 43-01	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057035		
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab if received by 4 30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	3.2
Total Containers:		Corrected Temperature:	3.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA. 300 0)	TPH (8015)	BTEX (8021	Sample Comments
FS05	S	3/24/2023	10 40	1'	Comp	1	X	X	X	
FS06	S	3/24/2023	10 50	1'	Comp	1	X	X	X	
FS07	S	3/24/2023	11 00	1'	Comp	1	X	X	X	
FS08	S	3/24/2023	11 10	1'	Comp	1	X	X	X	

DN

880-26508 Chain of Custody

Preservative Codes

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

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 DN	[signature]	3/28/23 0832	2		
3			4		
5			6		

4/7/2023

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-26508-1
SDG Number: 03D2057035

Login Number: 26508
List Number: 1
Creator: Kramer, Jessica

List Source: Eurofins Midland

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").	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/12/2023 4:21:45 PM Revision 1

JOB DESCRIPTION

Buckeye 43-01
SDG NUMBER 03D2057035

JOB NUMBER

890-3933-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

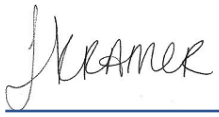
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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Revision 1

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

Client: Ensolum
Project/Site: Buckeye 43-01

Laboratory Job ID: 890-3933-1
SDG: 03D2057035

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
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: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Job ID: 890-3933-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3933-1

REVISION

The report being provided is a revision of the original report sent on 2/5/2023. The report (revision 1) is being revised due to Per client email, requesting sample depths be updated to 1'.

Report revision history

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

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-3933-1), FS02 (890-3933-2), FS03 (890-3933-3) and FS04 (890-3933-4).

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3922-A-1-C MS) and (890-3922-A-1-D MSD). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Client Sample ID: FS01

Date Collected: 01/20/23 09:15
Date Received: 01/23/23 16:24
Sample Depth: 1'

Lab Sample ID: 890-3933-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 01:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 01:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 01:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/02/23 13:52	02/03/23 01:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/02/23 13:52	02/03/23 01:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/02/23 13:52	02/03/23 01:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*02/02/23 13:52*	*02/03/23 01:57*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/02/23 13:52*	*02/03/23 01:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**140**		49.9		mg/Kg			02/05/23 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 13:37	02/04/23 17:01	1
Diesel Range Organics (Over C10-C28)	**140**		49.9		mg/Kg		02/02/23 13:37	02/04/23 17:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 13:37	02/04/23 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/02/23 13:37*	*02/04/23 17:01*	*1*
o-Terphenyl	*96*		*70 - 130*	*02/02/23 13:37*	*02/04/23 17:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**107**		4.95		mg/Kg			01/29/23 23:58	1

Client Sample ID: FS02

Date Collected: 01/20/23 09:25
Date Received: 01/23/23 16:24
Sample Depth: 1'

Lab Sample ID: 890-3933-2
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		02/02/23 13:52	02/03/23 03:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 03:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 03:20	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/02/23 13:52	02/03/23 03:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 03:20	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/02/23 13:52	02/03/23 03:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*02/02/23 13:52*	*02/03/23 03:20*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Client Sample ID: FS02
Date Collected: 01/20/23 09:25
Date Received: 01/23/23 16:24
Sample Depth: 1'

Lab Sample ID: 890-3933-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/02/23 13:52*	*02/03/23 03:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**213**		49.9	mg/Kg			02/05/23 09:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/02/23 13:37	02/04/23 17:22	1
Diesel Range Organics (Over C10-C28)	**213**		49.9	mg/Kg		02/02/23 13:37	02/04/23 17:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:37	02/04/23 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*02/02/23 13:37*	*02/04/23 17:22*	*1*
o-Terphenyl	*111*		*70 - 130*	*02/02/23 13:37*	*02/04/23 17:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94.7**		4.97	mg/Kg			01/30/23 00:04	1

Client Sample ID: FS03
Date Collected: 01/20/23 09:35
Date Received: 01/23/23 16:24
Sample Depth: 1'

Lab Sample ID: 890-3933-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/02/23 13:52	02/03/23 03:41	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/02/23 13:52	02/03/23 03:41	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/02/23 13:52	02/03/23 03:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/02/23 13:52	02/03/23 03:41	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/02/23 13:52	02/03/23 03:41	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/02/23 13:52	02/03/23 03:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/02/23 13:52*	*02/03/23 03:41*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*02/02/23 13:52*	*02/03/23 03:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/05/23 09:18	1

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Client Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Client Sample ID: FS03
Date Collected: 01/20/23 09:35
Date Received: 01/23/23 16:24
Sample Depth: 1'

Lab Sample ID: 890-3933-3
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		02/02/23 13:37	02/04/23 17:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/02/23 13:37	02/04/23 17:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/02/23 13:37	02/04/23 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*02/02/23 13:37*	*02/04/23 17:43*	*1*
o-Terphenyl	*112*		*70 - 130*	*02/02/23 13:37*	*02/04/23 17:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.6**		5.00		mg/Kg			01/30/23 00:10	1

Client Sample ID: FS04
Date Collected: 01/20/23 09:45
Date Received: 01/23/23 16:24
Sample Depth: 1'

Lab Sample ID: 890-3933-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 04:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 04:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 04:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/02/23 13:52	02/03/23 04:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/02/23 13:52	02/03/23 04:01	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/02/23 13:52	02/03/23 04:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*02/02/23 13:52*	*02/03/23 04:01*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/02/23 13:52*	*02/03/23 04:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/03/23 08:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**127**		49.9		mg/Kg			02/05/23 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 13:37	02/04/23 18:05	1
Diesel Range Organics (Over C10-C28)	**127**		49.9		mg/Kg		02/02/23 13:37	02/04/23 18:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 13:37	02/04/23 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/02/23 13:37*	*02/04/23 18:05*	*1*
o-Terphenyl	*95*		*70 - 130*	*02/02/23 13:37*	*02/04/23 18:05*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Client Sample ID: FS04

Date Collected: 01/20/23 09:45
Date Received: 01/23/23 16:24
Sample Depth: 1'

Lab Sample ID: 890-3933-4

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.9		4.96		mg/Kg			01/30/23 00:17	1

Surrogate Summary

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3925-A-1-D MS	Matrix Spike	102	103
890-3925-A-1-E MSD	Matrix Spike Duplicate	102	98
890-3933-1	FS01	116	109
890-3933-2	FS02	106	101
890-3933-3	FS03	110	103
890-3933-4	FS04	117	105
LCS 880-45269/1-A	Lab Control Sample	101	92
LCSD 880-45269/2-A	Lab Control Sample Dup	95	102
MB 880-45239/5-A	Method Blank	89	92
MB 880-45269/5-A	Method Blank	91	88

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3922-A-1-C MS	Matrix Spike	17 S1-	10 S1-
890-3922-A-1-D MSD	Matrix Spike Duplicate	14 S1-	9 S1-
890-3933-1	FS01	87	96
890-3933-2	FS02	104	111
890-3933-3	FS03	102	112
890-3933-4	FS04	87	95
LCS 880-45267/2-A	Lab Control Sample	87	91
LCSD 880-45267/3-A	Lab Control Sample Dup	85	90
MB 880-45267/1-A	Method Blank	112	123

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45239/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45239

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

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

Lab Sample ID: MB 880-45269/5-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45269

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

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

Lab Sample ID: LCS 880-45269/1-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45269

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

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

Lab Sample ID: LCSD 880-45269/2-A
Matrix: Solid
Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45269

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

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

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

Lab Sample ID: LCSD 880-45269/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45230 — **Prep Batch: 45269**

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

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

Lab Sample ID: 890-3925-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45230 — **Prep Batch: 45269**

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

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

Lab Sample ID: 890-3925-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45230 — **Prep Batch: 45269**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.1011		mg/Kg		102	70 - 130	7	35
Toluene	<0.00201	U	0.0990	0.09416		mg/Kg		95	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0990	0.09146		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1915		mg/Kg		97	70 - 130	2	35
o-Xylene	<0.00201	U	0.0990	0.09783		mg/Kg		99	70 - 130	2	35

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

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

Lab Sample ID: MB 880-45267/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45445 — **Prep Batch: 45267**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/02/23 13:37	02/04/23 08:56	1

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

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

Lab Sample ID: MB 880-45267/1-A
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45267

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/02/23 13:37	02/04/23 08:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/02/23 13:37	02/04/23 08:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*02/02/23 13:37*	*02/04/23 08:56*	*1*
o-Terphenyl	*123*		*70 - 130*	*02/02/23 13:37*	*02/04/23 08:56*	*1*

Lab Sample ID: LCS 880-45267/2-A
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45267

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	888.9		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)			999	860.4		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: LCSD 880-45267/3-A
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45267

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	802.7		mg/Kg		80	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			999	831.7		mg/Kg		83	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: 890-3922-A-1-C MS
Matrix: Solid
Analysis Batch: 45445

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45267

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1001		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1023		mg/Kg		98	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*17*	*S1-*	*70 - 130*
o-Terphenyl	*10*	*S1-*	*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

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

Lab Sample ID: 890-3922-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45445 — **Prep Batch: 45267**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	849.9		mg/Kg		85	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	922.7		mg/Kg		88	70 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*14*	*S1-*	*70 - 130*
o-Terphenyl	*9*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44793/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45036

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

Lab Sample ID: LCS 880-44793/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45036

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

Lab Sample ID: LCSD 880-44793/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45036

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	255.0		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-3930-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45036

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

Lab Sample ID: 890-3930-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45036

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

QC Association Summary

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

GC VOA

Analysis Batch: 45230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-1	FS01	Total/NA	Solid	8021B	45269
890-3933-2	FS02	Total/NA	Solid	8021B	45269
890-3933-3	FS03	Total/NA	Solid	8021B	45269
890-3933-4	FS04	Total/NA	Solid	8021B	45269
MB 880-45239/5-A	Method Blank	Total/NA	Solid	8021B	45239
MB 880-45269/5-A	Method Blank	Total/NA	Solid	8021B	45269
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	8021B	45269
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45269
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	45269
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45269

Prep Batch: 45239

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

Prep Batch: 45269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-1	FS01	Total/NA	Solid	5035	
890-3933-2	FS02	Total/NA	Solid	5035	
890-3933-3	FS03	Total/NA	Solid	5035	
890-3933-4	FS04	Total/NA	Solid	5035	
MB 880-45269/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45269/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45269/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3925-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3925-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-1	FS01	Total/NA	Solid	Total BTEX	
890-3933-2	FS02	Total/NA	Solid	Total BTEX	
890-3933-3	FS03	Total/NA	Solid	Total BTEX	
890-3933-4	FS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-1	FS01	Total/NA	Solid	8015NM Prep	
890-3933-2	FS02	Total/NA	Solid	8015NM Prep	
890-3933-3	FS03	Total/NA	Solid	8015NM Prep	
890-3933-4	FS04	Total/NA	Solid	8015NM Prep	
MB 880-45267/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45267/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45267/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3922-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3922-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-1	FS01	Total/NA	Solid	8015B NM	45267

QC Association Summary

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

GC Semi VOA (Continued)

Analysis Batch: 45445 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-2	FS02	Total/NA	Solid	8015B NM	45267
890-3933-3	FS03	Total/NA	Solid	8015B NM	45267
890-3933-4	FS04	Total/NA	Solid	8015B NM	45267
MB 880-45267/1-A	Method Blank	Total/NA	Solid	8015B NM	45267
LCS 880-45267/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45267
LCSD 880-45267/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45267
890-3922-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	45267
890-3922-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45267

Analysis Batch: 45492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-1	FS01	Total/NA	Solid	8015 NM	
890-3933-2	FS02	Total/NA	Solid	8015 NM	
890-3933-3	FS03	Total/NA	Solid	8015 NM	
890-3933-4	FS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-1	FS01	Soluble	Solid	DI Leach	
890-3933-2	FS02	Soluble	Solid	DI Leach	
890-3933-3	FS03	Soluble	Solid	DI Leach	
890-3933-4	FS04	Soluble	Solid	DI Leach	
MB 880-44793/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44793/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44793/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3930-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3930-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3933-1	FS01	Soluble	Solid	300.0	44793
890-3933-2	FS02	Soluble	Solid	300.0	44793
890-3933-3	FS03	Soluble	Solid	300.0	44793
890-3933-4	FS04	Soluble	Solid	300.0	44793
MB 880-44793/1-A	Method Blank	Soluble	Solid	300.0	44793
LCS 880-44793/2-A	Lab Control Sample	Soluble	Solid	300.0	44793
LCSD 880-44793/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44793
890-3930-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	44793
890-3930-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44793

Lab Chronicle

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Client Sample ID: FS01
Date Collected: 01/20/23 09:15
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3933-1
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	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 01:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45316	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45492	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45267	02/02/23 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 17:01	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/29/23 23:58	CH	EET MID

Client Sample ID: FS02
Date Collected: 01/20/23 09:25
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3933-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 03:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45316	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45492	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45267	02/02/23 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 17:22	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/30/23 00:04	CH	EET MID

Client Sample ID: FS03
Date Collected: 01/20/23 09:35
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3933-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 03:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45316	02/03/23 08:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			45492	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45267	02/02/23 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 17:43	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/30/23 00:10	CH	EET MID

Client Sample ID: FS04
Date Collected: 01/20/23 09:45
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3933-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	45269	02/02/23 13:52	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45230	02/03/23 04:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45316	02/03/23 08:57	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Client Sample ID: FS04

Date Collected: 01/20/23 09:45
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3933-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45492	02/05/23 09:18	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45267	02/02/23 13:37	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45445	02/04/23 18:05	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44793	01/26/23 08:33	CH	EET MID
Soluble	Analysis	300.0		1			45036	01/30/23 00:17	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: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

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: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

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: Buckeye 43-01

Job ID: 890-3933-1
SDG: 03D2057035

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3933-1	FS01	Solid	01/20/23 09:15	01/23/23 16:24	1'
890-3933-2	FS02	Solid	01/20/23 09:25	01/23/23 16:24	1'
890-3933-3	FS03	Solid	01/20/23 09:35	01/23/23 16:24	1'
890-3933-4	FS04	Solid	01/20/23 09:45	01/23/23 16:24	1'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	Buckeye 43-01	Turn Around	
Project Number:	03D2057035	☑ Routine ☐ Rush	
Project Location:	Lea	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TAN 00
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
FS01	Soil	1/20/2023	915	0.5'	Comp	1		x	x	x	
FS02	Soil	1/20/2023	925	0.5'	Comp	1		x	x	x	
FS03	Soil	1/20/2023	935	0.5'	Comp	1		x	x	x	
FS04	Soil	1/20/2023	945	0.5'	Comp	1		x	x	x	

ANALYSIS REQUEST

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		1-23-23 1624	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3933-1
SDG Number: 03D2057035

Login Number: 3933
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3933-1
SDG Number: 03D2057035

Login Number: 3933
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/25/23 12:13 PM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/12/2023 4:22:58 PM Revision 1

JOB DESCRIPTION

Buckeye 43-01
SDG NUMBER 03D2057035

JOB NUMBER

890-4036-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

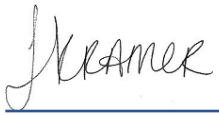
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



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Revision 1

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

Client: Ensolum
Project/Site: Buckeye 43-01

Laboratory Job ID: 890-4036-1
SDG: 03D2057035

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Job ID: 890-4036-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4036-1

REVISION

The report being provided is a revision of the original report sent on 2/14/2023. The report (revision 1) is being revised due to Per client email, requesting sample depths be updated to 1.5'.

Report revision history

Receipt
The samples were received on 2/6/2023 2:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-4036-1), FS02 (890-4036-2) and FS04 (890-4036-3).

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-46010 and 880-46012 and analytical batch 880-46086 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: (LCS 880-46012/1-A), (LCSD 880-46012/2-A), (890-4031-A-21-G MS) and (890-4031-A-21-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-4031-A-21-I). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-4037-A-1-H). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS01 (890-4036-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-4037-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-45846 and analytical batch 880-46086 was outside control limits. Sample non-homogeneity is suspected.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-45949/5) and (LCS 880-45900/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-24301-A-1-H) and (880-24301-A-1-I MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Case Narrative

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Job ID: 890-4036-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS01 (890-4036-1), FS02 (890-4036-2) and FS04 (890-4036-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-45900 and analytical batch 880-45949 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Client Sample ID: FS01

Date Collected: 02/06/23 09:45
Date Received: 02/06/23 14:12
Sample Depth: 1.5'

Lab Sample ID: 890-4036-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/10/23 14:36	02/14/23 10:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/10/23 14:36	02/14/23 10:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/10/23 14:36	02/14/23 10:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/10/23 14:36	02/14/23 10:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/10/23 14:36	02/14/23 10:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/10/23 14:36	02/14/23 10:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*02/10/23 14:36*	*02/14/23 10:48*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*02/10/23 14:36*	*02/14/23 10:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/14/23 11:45	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 14:46	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 13:32	02/10/23 18:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/09/23 13:32	02/10/23 18:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/09/23 13:32	02/10/23 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*56*	*S1-*	*70 - 130*	*02/09/23 13:32*	*02/10/23 18:00*	*1*
o-Terphenyl	*63*	*S1-*	*70 - 130*	*02/09/23 13:32*	*02/10/23 18:00*	*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			02/10/23 04:49	1

Client Sample ID: FS02

Date Collected: 02/06/23 09:50
Date Received: 02/06/23 14:12
Sample Depth: 1.5'

Lab Sample ID: 890-4036-2
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		02/10/23 14:36	02/14/23 11:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:36	02/14/23 11:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:36	02/14/23 11:15	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/10/23 14:36	02/14/23 11:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:36	02/14/23 11:15	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/10/23 14:36	02/14/23 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*02/10/23 14:36*	*02/14/23 11:15*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Client Sample ID: FS02
Date Collected: 02/06/23 09:50
Date Received: 02/06/23 14:12
Sample Depth: 1.5'

Lab Sample ID: 890-4036-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/10/23 14:36*	*02/14/23 11:15*	*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			02/14/23 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/13/23 14:46	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 13:32	02/10/23 18:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/09/23 13:32	02/10/23 18:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/09/23 13:32	02/10/23 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*60*	*S1-*	*70 - 130*	*02/09/23 13:32*	*02/10/23 18:22*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*02/09/23 13:32*	*02/10/23 18:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.4**		4.95	mg/Kg			02/10/23 04:55	1

Client Sample ID: FS04
Date Collected: 02/06/23 09:55
Date Received: 02/06/23 14:12
Sample Depth: 1.5'

Lab Sample ID: 890-4036-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:36	02/14/23 11:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:36	02/14/23 11:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:36	02/14/23 11:41	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/10/23 14:36	02/14/23 11:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 14:36	02/14/23 11:41	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/10/23 14:36	02/14/23 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*02/10/23 14:36*	*02/14/23 11:41*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*02/10/23 14:36*	*02/14/23 11:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/14/23 15:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/13/23 14:46	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Client Sample ID: FS04

Date Collected: 02/06/23 09:55
Date Received: 02/06/23 14:12
Sample Depth: 1.5'

Lab Sample ID: 890-4036-3

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		02/09/23 13:32	02/10/23 18:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/09/23 13:32	02/10/23 18:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/09/23 13:32	02/10/23 18:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*58*	*S1-*	*70 - 130*	*02/09/23 13:32*	*02/10/23 18:44*	*1*
o-Terphenyl	*63*	*S1-*	*70 - 130*	*02/09/23 13:32*	*02/10/23 18:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.4**		4.96		mg/Kg			02/10/23 05:00	1

Surrogate Summary

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

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)
890-4031-A-21-H MSD	Matrix Spike Duplicate	144 S1+	95
890-4036-1	FS01	134 S1+	79
890-4036-2	FS02	124	83
890-4036-3	FS04	138 S1+	81
890-4037-A-1-E MSD	Matrix Spike Duplicate	134 S1+	80
890-4037-A-1-F MS	Matrix Spike	116	81
LCS 880-46010/1-A	Lab Control Sample	130	100
LCS 880-46012/1-A	Lab Control Sample	134 S1+	87
LCSD 880-46010/2-A	Lab Control Sample Dup	128	86
LCSD 880-46012/2-A	Lab Control Sample Dup	140 S1+	85
MB 880-46010/5-A	Method Blank	89	85
MB 880-46012/5-A	Method Blank	93	82

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-24301-A-1-I MS	Matrix Spike	68 S1-	72
880-24301-A-1-J MSD	Matrix Spike Duplicate	86	74
890-4036-1	FS01	56 S1-	63 S1-
890-4036-2	FS02	60 S1-	69 S1-
890-4036-3	FS04	58 S1-	63 S1-
LCS 880-45900/2-A	Lab Control Sample	132 S1+	138 S1+
LCSD 880-45900/3-A	Lab Control Sample Dup	106	130
MB 880-45900/1-A	Method Blank	74	93

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: 890-4037-A-1-E MSD
Matrix: Solid
Analysis Batch: 46086

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45846

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.100	0.1146		mg/Kg		114	70 - 130	32	35
Toluene	<0.00201	U	0.100	0.1189	F2	mg/Kg		119	70 - 130	42	35
Ethylbenzene	<0.00201	U	0.100	0.1197	F2	mg/Kg		120	70 - 130	38	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2375	F2	mg/Kg		119	70 - 130	39	35
o-Xylene	<0.00201	U	0.100	0.1223	F2	mg/Kg		122	70 - 130	43	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*

Lab Sample ID: MB 880-46010/5-A
Matrix: Solid
Analysis Batch: 46086

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46010

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:32	02/13/23 12:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:32	02/13/23 12:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:32	02/13/23 12:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/10/23 14:32	02/13/23 12:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:32	02/13/23 12:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/10/23 14:32	02/13/23 12:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/10/23 14:32*	*02/13/23 12:26*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*02/10/23 14:32*	*02/13/23 12:26*	*1*

Lab Sample ID: LCS 880-46010/1-A
Matrix: Solid
Analysis Batch: 46086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46010

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1345	*+	mg/Kg		135	70 - 130		
Toluene			0.100	0.1363	*+	mg/Kg		136	70 - 130		
Ethylbenzene			0.100	0.1415	*+	mg/Kg		141	70 - 130		
m-Xylene & p-Xylene			0.200	0.2823	*+	mg/Kg		141	70 - 130		
o-Xylene			0.100	0.1415	*+	mg/Kg		141	70 - 130		

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

Lab Sample ID: LCSD 880-46010/2-A
Matrix: Solid
Analysis Batch: 46086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46010

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1219		mg/Kg		122	70 - 130	10	35
Toluene			0.100	0.1231		mg/Kg		123	70 - 130	10	35

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

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

Lab Sample ID: LCSD 880-46010/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46086 — **Prep Batch: 46010**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ethylbenzene			0.100	0.1286		mg/Kg		129	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2608		mg/Kg		130	70 - 130	8	35
o-Xylene			0.100	0.1290		mg/Kg		129	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: 890-4031-A-21-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46086 — **Prep Batch: 46010**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U *+	0.0996	0.1080		mg/Kg		108	70 - 130	2	35
Toluene	<0.00202	U *+	0.0996	0.1113		mg/Kg		112	70 - 130	1	35
Ethylbenzene	<0.00202	U *+	0.0996	0.1137		mg/Kg		114	70 - 130	2	35
m-Xylene & p-Xylene	<0.00404	U *+	0.199	0.2295		mg/Kg		115	70 - 130	2	35
o-Xylene	<0.00202	U *+	0.0996	0.1137		mg/Kg		114	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 880-46012/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46086 — **Prep Batch: 46012**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:36	02/14/23 01:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:36	02/14/23 01:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:36	02/14/23 01:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/10/23 14:36	02/14/23 01:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:36	02/14/23 01:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/10/23 14:36	02/14/23 01:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*02/10/23 14:36*	*02/14/23 01:37*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*02/10/23 14:36*	*02/14/23 01:37*	*1*

Lab Sample ID: LCS 880-46012/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46086 — **Prep Batch: 46012**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene			0.100	0.1059		mg/Kg		106	70 - 130
Toluene			0.100	0.1130		mg/Kg		113	70 - 130
Ethylbenzene			0.100	0.1122		mg/Kg		112	70 - 130
m-Xylene & p-Xylene			0.200	0.2259		mg/Kg		113	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

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

Lab Sample ID: LCS 880-46012/1-A
Matrix: Solid
Analysis Batch: 46086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46012

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1169		mg/Kg		117	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: LCSD 880-46012/2-A
Matrix: Solid
Analysis Batch: 46086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46012

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1142		mg/Kg		114	70 - 130	8	35
Toluene			0.100	0.1154		mg/Kg		115	70 - 130	2	35
Ethylbenzene			0.100	0.1117		mg/Kg		112	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2226		mg/Kg		111	70 - 130	1	35
o-Xylene			0.100	0.1105		mg/Kg		111	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*140*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: 890-4037-A-1-F MS
Matrix: Solid
Analysis Batch: 46086

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 46012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.08259		mg/Kg		82	70 - 130		
Toluene	<0.00201	U	0.100	0.07765		mg/Kg		77	70 - 130		
Ethylbenzene	<0.00201	U	0.100	0.08149		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1603		mg/Kg		80	70 - 130		
o-Xylene	<0.00201	U	0.100	0.07875		mg/Kg		79	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*

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

Lab Sample ID: MB 880-45900/1-A
Matrix: Solid
Analysis Batch: 45949

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45900

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 13:32	02/10/23 08:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/09/23 13:32	02/10/23 08:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/09/23 13:32	02/10/23 08:07	1

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

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

Lab Sample ID: MB 880-45900/1-A
Matrix: Solid
Analysis Batch: 45949

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45900

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130	02/09/23 13:32	02/10/23 08:07	1
o-Terphenyl	93		70 - 130	02/09/23 13:32	02/10/23 08:07	1

Lab Sample ID: LCS 880-45900/2-A
Matrix: Solid
Analysis Batch: 45949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45900

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1020		mg/Kg		102	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1138		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	132	S1+	70 - 130
o-Terphenyl	138	S1+	70 - 130

Lab Sample ID: LCSD 880-45900/3-A
Matrix: Solid
Analysis Batch: 45949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45900

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	988.6		mg/Kg		99	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1056		mg/Kg		106	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	130		70 - 130

Lab Sample ID: 880-24301-A-1-I MS
Matrix: Solid
Analysis Batch: 45949

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45900

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1139		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1193		mg/Kg		116	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	68	S1-	70 - 130
o-Terphenyl	72		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

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

Lab Sample ID: 880-24301-A-1-J MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45949 — **Prep Batch: 45900**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1192		mg/Kg		116	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1218		mg/Kg		119	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-45807/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45909

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 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45909

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 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45909

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251.5		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-24477-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45909

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	116		253	372.5		mg/Kg		102	90 - 110		

Lab Sample ID: 880-24477-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45909

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	116		253	373.2		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

GC VOA

Prep Batch: 45846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4037-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 46010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46010/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46010/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46010/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4031-A-21-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 46012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4036-1	FS01	Total/NA	Solid	5035	
890-4036-2	FS02	Total/NA	Solid	5035	
890-4036-3	FS04	Total/NA	Solid	5035	
MB 880-46012/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46012/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46012/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4037-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	

Analysis Batch: 46086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4036-1	FS01	Total/NA	Solid	8021B	46012
890-4036-2	FS02	Total/NA	Solid	8021B	46012
890-4036-3	FS04	Total/NA	Solid	8021B	46012
MB 880-46010/5-A	Method Blank	Total/NA	Solid	8021B	46010
MB 880-46012/5-A	Method Blank	Total/NA	Solid	8021B	46012
LCS 880-46010/1-A	Lab Control Sample	Total/NA	Solid	8021B	46010
LCS 880-46012/1-A	Lab Control Sample	Total/NA	Solid	8021B	46012
LCSD 880-46010/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46010
LCSD 880-46012/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46012
890-4031-A-21-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46010
890-4037-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45846
890-4037-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	46012

Analysis Batch: 46315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4036-1	FS01	Total/NA	Solid	Total BTEX	
890-4036-2	FS02	Total/NA	Solid	Total BTEX	
890-4036-3	FS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4036-1	FS01	Total/NA	Solid	8015NM Prep	
890-4036-2	FS02	Total/NA	Solid	8015NM Prep	
890-4036-3	FS04	Total/NA	Solid	8015NM Prep	
MB 880-45900/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45900/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45900/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24301-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

GC Semi VOA (Continued)

Prep Batch: 45900 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24301-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4036-1	FS01	Total/NA	Solid	8015B NM	45900
890-4036-2	FS02	Total/NA	Solid	8015B NM	45900
890-4036-3	FS04	Total/NA	Solid	8015B NM	45900
MB 880-45900/1-A	Method Blank	Total/NA	Solid	8015B NM	45900
LCS 880-45900/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45900
LCSD 880-45900/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45900
880-24301-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	45900
880-24301-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45900

Analysis Batch: 46172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4036-1	FS01	Total/NA	Solid	8015 NM	
890-4036-2	FS02	Total/NA	Solid	8015 NM	
890-4036-3	FS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 45807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4036-1	FS01	Soluble	Solid	DI Leach	
890-4036-2	FS02	Soluble	Solid	DI Leach	
890-4036-3	FS04	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	
880-24477-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-24477-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4036-1	FS01	Soluble	Solid	300.0	45807
890-4036-2	FS02	Soluble	Solid	300.0	45807
890-4036-3	FS04	Soluble	Solid	300.0	45807
MB 880-45807/1-A	Method Blank	Soluble	Solid	300.0	45807
LCS 880-45807/2-A	Lab Control Sample	Soluble	Solid	300.0	45807
LCSD 880-45807/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45807
880-24477-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	45807
880-24477-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45807

Lab Chronicle

Client: Ensolum
Project/Site: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Client Sample ID: FS01
Date Collected: 02/06/23 09:45
Date Received: 02/06/23 14:12

Lab Sample ID: 890-4036-1
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	46012	02/10/23 14:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46086	02/14/23 10:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46315	02/14/23 11:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			46172	02/13/23 14:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45900	02/09/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45949	02/10/23 18:00	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 04:49	CH	EET MID

Client Sample ID: FS02
Date Collected: 02/06/23 09:50
Date Received: 02/06/23 14:12

Lab Sample ID: 890-4036-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	46012	02/10/23 14:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46086	02/14/23 11:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46315	02/14/23 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			46172	02/13/23 14:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45900	02/09/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45949	02/10/23 18:22	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 04:55	CH	EET MID

Client Sample ID: FS04
Date Collected: 02/06/23 09:55
Date Received: 02/06/23 14:12

Lab Sample ID: 890-4036-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	46012	02/10/23 14:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46086	02/14/23 11:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46315	02/14/23 15:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			46172	02/13/23 14:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45900	02/09/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45949	02/10/23 18:44	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	45807	02/08/23 14:35	KS	EET MID
Soluble	Analysis	300.0		1			45909	02/10/23 05:00	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: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

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: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

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: Buckeye 43-01

Job ID: 890-4036-1
SDG: 03D2057035

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4036-1	FS01	Solid	02/06/23 09:45	02/06/23 14:12	1.5'
890-4036-2	FS02	Solid	02/06/23 09:50	02/06/23 14:12	1.5'
890-4036-3	FS04	Solid	02/06/23 09:55	02/06/23 14:12	1.5'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	Buckeye 43-01	Turn Around	Pres. Code
Project Number:	03D2057035	☑ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TAM007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.2
Total Containers:		Corrected Temperature:	5.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS01	S	2/6/2023	9:45	1'	Comp	1	x	x	x
FS02	S	2/6/2023	9:50	1'	Comp	1	x	x	x
FS04	S	2/6/2023	9:55	1'	Comp	1	x	x	x

890-4036 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Incident Number

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		2-6-23 14	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4036-1
SDG Number: 03D2057035

Login Number: 4036
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4036-1
SDG Number: 03D2057035

Login Number: 4036
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/08/23 02:46 PM

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

ENSOLUM

APPENDIX D

NMOCD Sampling Notifications

From: Enviro, OCD, EMNRD
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/16/2023)
Date: Thursday, January 12, 2023 8:33:41 AM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.png

[**EXTERNAL EMAIL**]

Kalei,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, January 11, 2023 5:25 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 01/16/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Maverick Natural Resources (Maverick) plans to complete final sampling activities at the following sites the week of January 16, 2023.

- Oxy State F-1 / NAPP2235375291
- Jalmat 188 / NAPP2235373931
- Jalmat 170 / NAPP2233946698
- MCA 151 / NAPP2235377174

- EVGSAU 2418-001 / NAPP2231954757
- Buckeye 43-01 / NAPP2230752440
- Leamex 018 / NAPP2234158858
-

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

From: Enviro, OCD, EMNRD
To: Kalei Jennings
Cc: Nobui, Jennifer, EMNRD; Bratcher, Michael, EMNRD
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/30/2023)
Date: Monday, January 30, 2023 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**

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**

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: Josh Adams
Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] Sampling Notifications - Week of 3/6/2023
Date: Wednesday, March 1, 2023 4:23:00 PM
Attachments: image005.jpg
image006.png
image007.png
image008.png
image009.png

[**EXTERNAL EMAIL**]

Josh,

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**

From: Josh Adams <jadams@ensolum.com>
Sent: Wednesday, March 1, 2023 1:35 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Anna Byers <abyers@ensolum.com>; Joe Gable <jgable@ensolum.com>; Bryce Wagoner <Bryce.Wagoner@mavresources.com>
Subject: [EXTERNAL] Sampling Notifications - Week of 3/6/2023

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 March 6, 2023.

- MCA 145 / NAPP2229469315

- MCA 254/ NAPP2302035947
- Buckeye 43-01/ NAPP2230752440

Josh Adams, PG
Project Geologist
303-517-8437
Ensolum, LLC

PLEASE NOTE OUR NEW CORPORATE ADDRESS:
Ensolum, LLC
8330 LBJ Freeway, Ste. B830
Dallas, TX 75243

Kalei Jennings

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Sent: Tuesday, January 24, 2023 10:52 AM
To: Kalei Jennings
Cc: Harimon, Jocelyn, EMNRD; Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD
Subject: FW: [EXTERNAL] Extension Request- Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01) (Incident Number NAPP2230752440)

[**EXTERNAL EMAIL**]

Hello Kalei

OCD approves your request for a 90-day extension to 04/23/2023 to submit a remediation plan and/or closure report. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

To Whom It May Concern,

Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01) (Incident Number NAPP2230752440)

Maverick Permian, LLC (Maverick) is requesting an extension for the current deadline of January 23, 2023, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01) (Incident Number NAPP2230752440). The release was discovered on October 25, 2022, and initial site assessment activities have been completed. The release occurred on land owned by the State of New Mexico and a Right-of-Entry Request was submitted to the State on December 13, 2023, and the executed permit was not received until January 3, 3032. To complete additional remediation activities and submit a remediation work plan or closure report, Maverick requests a 90-day extension of this deadline until April 23, 2023.

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

ENSOLUM

APPENDIX E

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	NAPP2230752440
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)*
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.789981 Longitude -103.464201
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01)	Site Type
Date Release Discovered October 25, 2022	API# *(if applicable)* *30-025-20786*

Unit Letter	Section	Township	Range	County
K	33	17S	35E	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) 7.1 0bbls	Volume Recovered (bbls) 5.0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The release was caused by a flow line rupture during a hot watering operations. The release occurred off pad. A vacuum truck was dispatched to the site to recover free standing fluids and remove saturated soils from the release area. The source of the release has been stopped and the impacted area has been secured.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2230752440
District RP	
Facility ID	
Application ID	

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

Initial Response

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

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

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

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

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

Printed Name: ____Bryce Wagoner _____ Title: ___Permian HSE Specialist II_____

Signature: _____ Date: ___11/2/2022_____

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

OCD Only

Received by: ____Jocelyn Harimon_____ Date: ___11/03/2022__

NAPP2230752440

Pooled Fluids on the Surface										
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries *edges of pool where depth is 0. don't count shared boundaries*	Oil-Water Ratio (%)	Pooled Area (ft^2)	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	100.0	8.0	0.6	1.0	0.01	800.0	0.1	7.1	0.07	7.05
Rectangle B					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
							Total Volume (bbls):	**7.12**	**0.07**	**7.05**

Subsurface Fluids										
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) *10% in consolidated sediments after rain to 50% in sand with no precipitation*	Oil-Water Ratio (%)	Area (ft^2)	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle B				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle C				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle D				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle E				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle F						0.0	0.0	0.0	0.00	0.0
Rectangle G						0.0	0.0	0.0	0.00	0.0
Rectangle H						0.0	0.0	0.0	0.00	0.0
Rectangle I						0.0	0.0	0.0	0.00	0.0
Rectangle J						0.0	0.0	0.0	0.00	0.0
							Total Volume (bbls):	**0.00**	**0.00**	**0.00**

TOTAL RELEASE VOLUME (bbls):	**7.1**

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

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 156176
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2230752440
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

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State of New Mexico
Oil Conservation Division

Incident ID	NAPP2230752440
District RP	
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Bryce Wagoner Title: Permian HSE Specialist II

Signature: Date: 04/13/2023

email: Bryce.Wagoner@mavresources.com Telephone: 928-241-1862

OCD Only

Received by: Jocelyn Harimon Date: 04/21/2023

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State of New Mexico
Oil Conservation Division

Incident ID	NAPP2230752440
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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: Bryce Wagoner Date: 04/13/2023

email: Bryce.Wagoner@mavresources.com Telephone: 928-241-1862

OCD Only

Received by: Jocelyn Harimon Date: 04/21/2023

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: Nelson Velez Date: 07/14/2023

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 209752

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 209752
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	7/14/2023