



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

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Texas PG Firm No. 50588 | Texas PE Firm No. F-21843

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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.



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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.



Maverick Permian, LLC Closure Request Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01) April 14, 2023

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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

New Mexico State Land Office

Appendices:

CC:

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

Bryce Wagoner, Maverick Permian, LLC

Appendix B Photographic Log

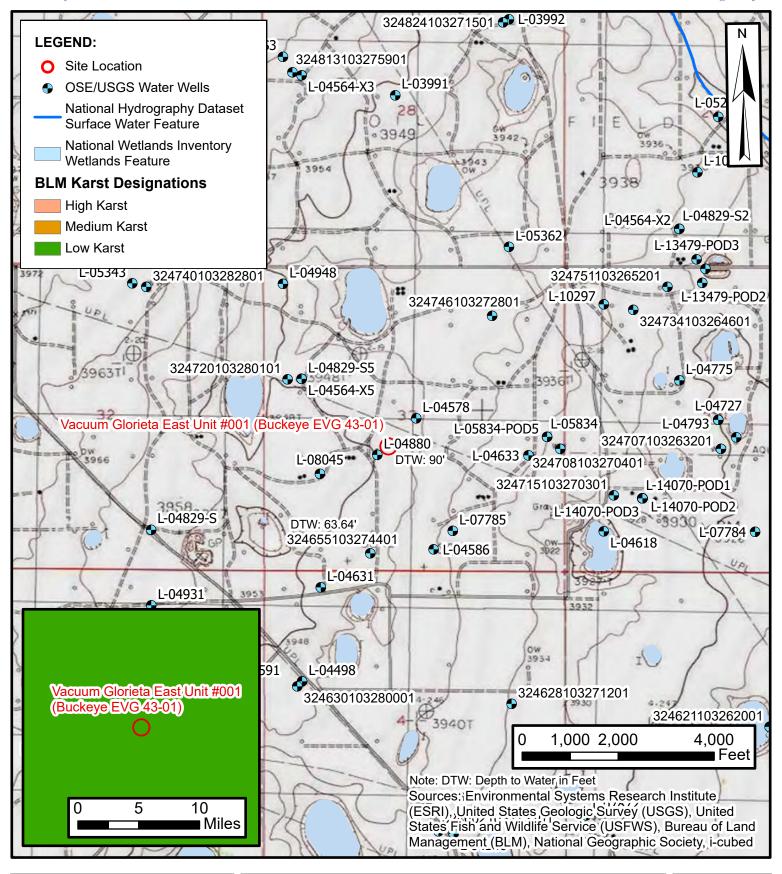
Appendix C Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix D NMOCD Sampling Notifications

Appendix E Final C-141



FIGURES

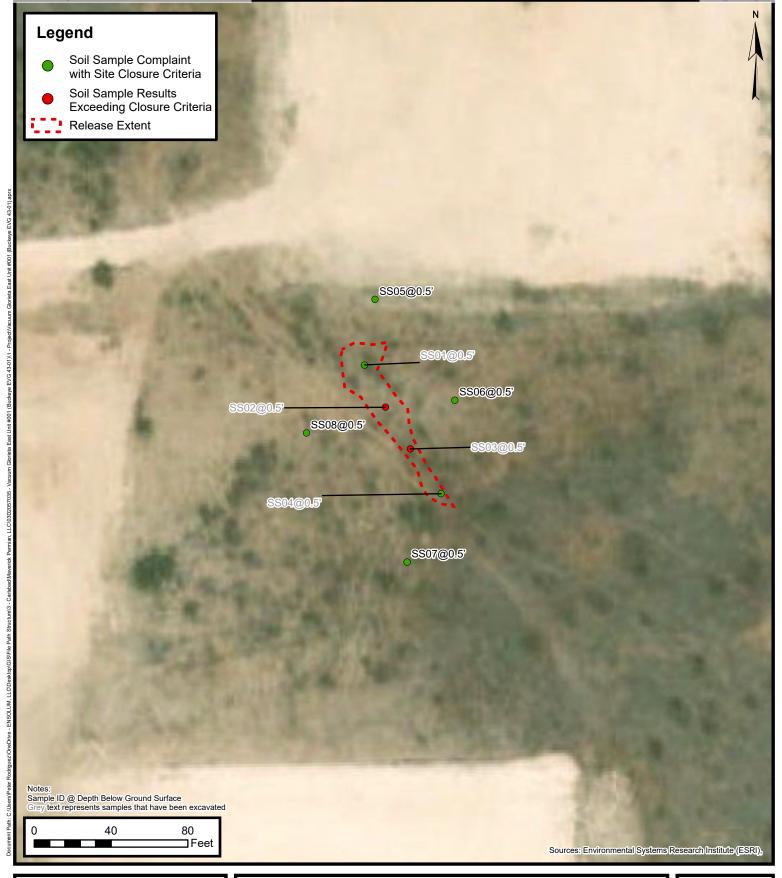




Site Receptor Map

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





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





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**



TABLES



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Vacuum Glorieta East Unit #001 (Buckeye EVG 43-01) Maverick Permian, LLC Lea County, New Mexico **Total BTEX TPH GRO TPH DRO TPH ORO** GRO+DRO **Total TPH** Sample Depth Benzene Chloride Date Designation (feet bgs) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) NMOCD Table I Closure Criteria (NMAC 19.15.29) 10 50 NE NE NE NE 100 600 **Soil Samples Locations** 10/27/2022 0.5 <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 0.00828 <49.9 6.01 0.5 < 0.00198 <49.9 <49.9 <49.9 <49.9 **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** 140 140 FS01A 02/06/2023 1.5 < 0.00199 < 0.00398 <49.9 <49.9 <49.10 <49.11 <49.12 178 FS02 <49.9 213 213 213 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 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 < 0.00200 0.0303 < 50.0 <50.0 126 1 <50.0 <50.0 < 50.0 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 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



APPENDIX A

Referenced Well Records



New Mexico Office of the State Engineer

Water Right Summary

WR File Number: L 04880

Subbasin: L

Cross Reference:

Primary Purpose: PRO

72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE

Primary Status: PERMIT PMT

Total Acres:

Subfile:

Header: -

Total Diversion: 0

Owner:

Cause/Case:

HONDO DRILLING COMPANY

JOHN W SHERMAN **Contact:**

Documents on File

Status

From/

Transaction Desc.

To

Diversion Consumptive

1962-04-19

PMT LOG L 04880 (T) EXPIRED

Т

3

Current Points of Diversion

Trn#

(NAD83 UTM in meters)

POD Number L 04880

Well Tag Source

File/Act

64Q16Q4Sec Tws Rng Shallow 2 3 33 17S 35E

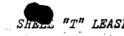
643757 3629002*

Other Location Desc SHELL "T" LEASE

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

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

4/12/23 10:34 AM WATER RIGHT SUMMARY



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.

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Section 6

LOG OF WELL

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90	145	55		water sand
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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

. STATE ENGINEER OFFICE

KELL *T* Lease

SANTA FE

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 IA and Section 5 need be completed.

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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.



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

Groundwater ✓ United States ✓ GO

Click to hideNews Bulletins

• 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 (1210GLL) 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 measure
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	Α	Approved for publication Processing and review completed.

Questions about sites/data?
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<u>U.S. Department of the Interior</u> | <u>U.S. Geological Survey</u> **Title: Groundwater for USA: Water Levels**

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2023-01-17 12:38:17 EST

0.38 0.33 nadww02





USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

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

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- Explore the NEW <u>USGS National Water Dashboard</u> 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 (1210GLL) local aquifer.

Output for

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	-		Α
1986-01-16		D	62611		3872.39	NAVD88	1	Z	7		Α
1986-01-16		D	72019	64.08			1	Z	7		Α
1990-12-20		D	62610		3868.06	NGVD29	1	Z	7		Α
1990-12-20		D	62611		3869.53	NAVD88	1	Z	2		Α
1990-12-20		D	72019	66.94			1	7	7		А

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
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New Mexico Office of the State Engineer

Point of Diversion Summary

35E

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag POD Number Q64 Q16 Q4 Sec Tws Rng

L 04578 33 17S

X Y

643962 3629198*

* 🌍

Driller License: 99 **Driller Company:** O.R. MUSSELWHITE WATER WELL SE

Driller Name:

Drill Start Date:01/12/1961Drill Finish Date:01/14/1961Plug Date:01/14/1961Log File Date:01/17/1961PCW Rev 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

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

1/17/23 10:23 AM

POINT OF DIVERSION SUMMARY

^{*}UTM location was derived from PLSS - see Help





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.

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Location No. 12 35. 33.

Depth	in Feet	Thickness in Feet	Color	Type of Material Encountered				
0	11	11	Black	Soil & rock				
1	32	31	White	Caliche & rock				
32	50	18	Grey	Sandy shale				
50	54	44	19	Sand rock				
54	126	72	Red	Sand & sand rock, broken				
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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

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.

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Section 6

LOG OF WELL

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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.

.. 4- -----

STATE ENGINEER OFFICE

LL STATE "T" No. 7

Page 26 of 225

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.

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									19 61
	Plat of 640								
Elevatio	on at top	of casing i	n feet above s	ea level		Total	depth of	well 13	
State w	hether we	ell is shall	ow or artesian	shall	CW.	Depth to	water up	on completi	on 65
Section	2		PRI	NCIPAL WA	ATER-BEA	RING STRATA			
No.	Depth From	in Feet	Thickness in Feet		r	Description of W	ater-Beari	ng Formation	
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Section 6

LOG OF WELL

	in Feet	Thickness in Feet	Color	Type of Material Encountered
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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

SANTA FE

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	1		(A) Owne	r of well	н	NDO DRILLING	COMPANY	
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Section 2				CIPAL WA		ING STRATA		
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	1							
Section 5	5			PLUGG	SING REC	ORD		
Name of	Plugging	Contract	or Abl	ott Bre	thers		License	No. WD-46
Street a	nd Numbe	r	Box 637		City	Hobbs	State	New Mexice
Tons of	Clay used.		Tons of R	oughage u	ısed	Ту	pe of roughag	e
Plugging	method u	sed Wet	conc. plug c	wer rub	de fill	Date Plu	uggedJune	9 19 61
Plugging	g approved	by:	18/	A1	/	Cement Plu	gs were placed	as follows:
	Jan	us	Basin Sup	ervisor	No	Depth of F	Plug To No.	of Sacks Used
(/	FOR USE	OF STAT	E ENGINEER OF		7 1		6 4	
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Section 6

LOG OF WELL

Depth	in Feet	Thickness	Color	Type of Material Encountered				
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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



APPENDIX B

Photographic Log

ENSOLUM

Photographic Log

Mavericl 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



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

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:

🛟 eurofins

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

JURAMER

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

Jessica Kramer, Project Manager (432)704-5440

Jessica.Kramer@et.eurofinsus.com

Authorized for release by:

Review your project results through EOL.

Have a Question?

.....LINKS

Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 7/14/2023 8:07:04 AM

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

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

2

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0

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10

4.0

Client: Ensolum
Project/Site: EVG 43-01
Laboratory Job ID: 890-3329-1
SDG: 03D2057035

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Surrogate Summary	9
QC Sample Results	10
QC Association Summary	14
Lab Chronicle	16
Certification Summary	18
Method Summary	19
Sample Summary	20
Chain of Custody	21
Receipt Checklists	22

Definitions/Glossary

Job ID: 890-3329-1 Client: Ensolum Project/Site: EVG 43-01 SDG: 03D2057035

Qualifiers

GC VOA Qualifier

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.

Qualifier Description

GC Semi VOA

Qualifier Description
MS/MSD RPD exceeds control limits
Surrogate recovery exceeds control limits, low biased.
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

EDL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	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
DI	Detection Limit (DeD/DOE)

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)

Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) EPA recommended "Maximum Contaminant Level" MCL

MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC MDL Method Detection Limit

MI 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 Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Carlsbad

Case Narrative

Client: Ensolum

Job ID: 890-3329-1 Project/Site: EVG 43-01 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.

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

Client Sample Results

Client: Ensolum Job ID: 890-3329-1 Project/Site: EVG 43-01 SDG: 03D2057035

Client Sample ID: SS01 Lab Sample ID: 890-3329-1 Date Collected: 10/27/22 12:00

Matrix: Solid

Date Received: 10/28/22 12:18

Sample Depth: 0.5

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	
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	
m-Xylene & p-Xylene	0.181		0.0199	mg/Kg		11/02/22 15:00	11/03/22 13:22	
o-Xylene	0.120		0.00996	mg/Kg		11/02/22 15:00	11/03/22 13:22	:
Xylenes, Total	0.301		0.0199	mg/Kg		11/02/22 15:00	11/03/22 13:22	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	157	S1+	70 - 130			11/02/22 15:00	11/03/22 13:22	
1,4-Difluorobenzene (Surr)	111		70 - 130			11/02/22 15:00	11/03/22 13:22	
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	0.655		0.0199	mg/Kg			11/03/22 16:34	•
Method: SW846 8015 NM - Diese	I Range Organ	ics (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	
Method: SW846 8015B NM - Dies	sel Range Orga	nics (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	
Diesel Range Organics (Over C10-C28)	70.6		49.8	mg/Kg		11/01/22 08:49	11/01/22 13:32	
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/01/22 08:49	11/01/22 13:32	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	86		70 - 130			11/01/22 08:49	11/01/22 13:32	
o-Terphenyl	90		70 - 130			11/01/22 08:49	11/01/22 13:32	
Method: MCAWW 300.0 - Anions	, Ion Chromato	graphy - So	oluble					
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

Date Collected: 10/27/22 12:05 Matrix: Solid

Date Received: 10/28/22 12:18

Sample Depth: 0.5

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

Job ID: 890-3329-1

Client: Ensolum Project/Site: EVG 43-01 SDG: 03D2057035

Client Sample ID: SS02 Lab Sample ID: 890-3329-2 Date Collected: 10/27/22 12:05

Matrix: Solid

Sample Depth: 0.5

Date Received: 10/28/22 12:18

Method: SW846 8021B	 Volatile Organic Compounds ((GC) (Continued)
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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 - To	tal BTEX Calculation						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	2.67	0.0398	mg/Kg			11/03/22 16:34	

Method: SW846 8015 NM - Diesel F	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 - Dies Analyte	•	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

Surrogate	%Recovery Qualifier	Limits	Prepared	Anaiyzea	DII 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
Through a de Man Alamay and a least-					

Method: MCAWW 300.0 - Anions, I	on Chromatography - So	oluble					
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

Total TPH

Released to Imaging: 7/14/2023 8:07:04 AM

nalyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
enzene	0.0464		0.0101	mg/Kg		11/02/22 15:00	11/03/22 14:03	- 5
oluene	0.0584		0.0101	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
thylbenzene	0.136		0.0101	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
-Xylene & p-Xylene	0.122		0.0202	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
-Xylene	0.0921		0.0101	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
ylenes, Total	0.214		0.0202	mg/Kg		11/02/22 15:00	11/03/22 14:03	5
urrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Bromofluorobenzene (Surr)	116		70 - 130			11/02/22 15:00	11/03/22 14:03	- 5
4-Difluorobenzene (Surr)	84		70 - 130			11/02/22 15:00	11/03/22 14:03	5
lethod: TAL SOP Total BTEX	- Total BTEX Cald	culation						
nalyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
otal BTEX	0.455		0.0202	mg/Kg			11/03/22 16:34	1

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11/02/22 10:14

50.0

mg/Kg

Matrix: Solid

Lab Sample ID: 890-3329-3

11/01/22 23:54

Client Sample Results

Client: Ensolum Job ID: 890-3329-1 Project/Site: EVG 43-01 SDG: 03D2057035

Client Sample ID: SS03

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

Sample Depth: 0.5

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
Oll 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 Chromato	graphy - So	oluble					
Analyte	- "	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: SS04 Lab Sample ID: 890-3329-4 Date Collected: 10/27/22 12:10 Matrix: Solid

42.5

4.97

mg/Kg

Date Received: 10/28/22 12:18

Sample Depth: 0.5

Chloride

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 - T	otal BTEX Cald	culation						
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 - Diese	l Range Organ	ics (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 - Dies	sel Range Orga	nics (DRO)	(GC)					
Analyte		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
Oll 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

Matrix: Solid

Client Sample Results

 Client: Ensolum
 Job ID: 890-3329-1

 Project/Site: EVG 43-01
 SDG: 03D2057035

Client Sample ID: SS04 Lab Sample ID: 890-3329-4

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

Sample Depth: 0.5

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			

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DFBZ = 1,4-Difluorobenzene (Surr)

Surrogate Summary

 Client: Ensolum
 Job ID: 890-3329-1

 Project/Site: EVG 43-01
 SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
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	
390-3329-3	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				

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

Matrix: Solid Prep Type: Total/NA

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

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum Job ID: 890-3329-1 SDG: 03D2057035 Project/Site: EVG 43-01

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

	MB	MB						
Analyte	Result	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

MB MB

Surrogate	%Recovery Qu	ualifier 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

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery	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	Client Sam	ple ID: Lab	Control Sa	mple Dup
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Prep Type: Total/NA

Prep Batch: 38465

	Spike	LCSD	LUGD				/orec		KFD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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	

LCSD LCSD

Surrogate	%Recovery 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

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

Prep Batch: 38465

Client Sample ID: Matrix Spike Duplicate

QC Sample Results

Job ID: 890-3329-1 Client: Ensolum Project/Site: EVG 43-01 SDG: 03D2057035

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

Lab Sample ID: 880-20981-A-1-B MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 38581

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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

Lab Sample ID: 880-20981-A-1-C MSD

o-Xylene

Matrix: Solid									Prep 1	ype: To	tal/NA
Analysis Batch: 38581									Prep	Batch:	38465
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

mg/Kg

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

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

Lab Sample ID: MB 880-38325/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 38325

Analysis Batch: 38323

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

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

Lab Sample ID: LCS 880-38325/2-A Client Sample ID: Lab Control Sample

Analysis Batch: 38323

Matrix: Solid

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit %Rec Limits 1000 118 70 - 130 1179 Gasoline Range Organics mg/Kg

(GRO)-C6-C10 Diesel Range Organics (Over 1000 1120 mg/Kg 112 70 - 130 C10-C28)

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Page 11 of 23

Prep Type: Total/NA

Prep Batch: 38325

Job ID: 890-3329-1

SDG: 03D2057035

Project/Site: EVG 43-01

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

LCS LCS

Lab Sample ID: LCS 880-38325/2-A

Matrix: Solid

Client: Ensolum

Analysis Batch: 38323

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38325

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

Lab Sample ID: LCSD 880-38325/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 38323

Prep Type: Total/NA

Prep Batch: 38325

	s	ike	LCSD	LCSD				%Rec		RPD
Analyte	Ad	ded	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics		000	1081		mg/Kg		108	70 - 130	9	20
(GRO)-C6-C10										
Diesel Range Organics (Over	1	000	1234		mg/Kg		123	70 - 130	10	20
C10-C28)										

LCSD LCSD

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

Lab Sample ID: 890-3322-A-2-D MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 38323

Prep Type: Total/NA

Prep Batch: 38325

Prep Batch: 38325

23

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70 - 130

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U 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	

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

Lab Sample ID: 890-3322-A-2-E MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 38323

Spike MSD MSD %Rec RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit <50.0 U F1 999 899.6 88 20 Gasoline Range Organics mg/Kg 70 - 130 15

1022 F2

mg/Kg

999

(GRO)-C6-C10 Diesel Range Organics (Over

C10-C28) MSD MSD

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

<50.0 U F1 F2

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: SS03

Client Sample ID: SS03

Prep Type: Soluble

Prep Type: Soluble

 Client: Ensolum
 Job ID: 890-3329-1

 Project/Site: EVG 43-01
 SDG: 03D2057035

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-38262/1-A

Matrix: Solid

Analysis Batch: 38428

мв мв

 Analyte
 Result Chloride
 Qualifier
 RL Unit
 Unit mg/Kg
 D Prepared
 Analyzed Analyzed
 Dil Fac Dil Fa

Lab Sample ID: LCS 880-38262/2-A

Matrix: Solid

Analysis Batch: 38428

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

Lab Sample ID: LCSD 880-38262/3-A

Matrix: Solid

Analysis Batch: 38428

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 265.5 90 - 110 mg/Kg 106

Lab Sample ID: 890-3329-3 MS

Matrix: Solid

Analysis Batch: 38428

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

Lab Sample ID: 890-3329-3 MSD

Matrix: Solid

Analysis Batch: 38428

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

Eurofins Carlsbad

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QC Association Summary

 Client: Ensolum
 Job ID: 890-3329-1

 Project/Site: EVG 43-01
 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 Job ID: 890-3329-1 Project/Site: EVG 43-01 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

Job ID: 890-3329-1

Client: Ensolum Project/Site: EVG 43-01 SDG: 03D2057035

Client Sample ID: SS01 Lab Sample ID: 890-3329-1 Date Collected: 10/27/22 12:00

Matrix: Solid

Date Received: 10/28/22 12:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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	СН	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	38428	11/01/22 23:44	CH	EET MID

Client Sample ID: SS02 Lab Sample ID: 890-3329-2

Date Collected: 10/27/22 12:05 Matrix: Solid

Date Received: 10/28/22 12:18

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

Client Sample ID: SS03 Lab Sample ID: 890-3329-3 Date Collected: 10/27/22 12:10 **Matrix: Solid**

Date Received: 10/28/22 12:18

Dil Batch Batch Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number 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 Total BTEX 38671 11/03/22 16:34 SM **EET MID** Analysis 1 Total/NA Analysis 8015 NM 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 8015B NM 38323 11/01/22 14:15 Analysis 1 uL 1 uL SM **EET MID** Soluble DI Leach 5.03 g 50 mL 38262 10/31/22 10:26 CH Leach **EET MID** Soluble Analysis 300.0 50 mL 50 mL 38428 11/01/22 23:54 СН **EET MID**

Client Sample ID: SS04 Lab Sample ID: 890-3329-4

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Matrix: Solid

Lab Chronicle

 Client: Ensolum
 Job ID: 890-3329-1

 Project/Site: EVG 43-01
 SDG: 03D2057035

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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	СН	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

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Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3329-1

 Project/Site: EVG 43-01
 SDG: 03D2057035

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date	
Texas	NI	ELAP	T104704400-22-24	06-30-23	
The fellowing englytes					
the agency does not of	. ,	ut the laboratory is not certili	ed by the governing authority. This list ma	ay include analytes for	
0 ,	. ,	It the laboratory is not certilion Matrix	ed by the governing authority. This list ma Analyte	ay include analytes for	
the agency does not of	fer certification.	•	, , ,	ay include analytes for	

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Method Summary

Job ID: 890-3329-1 Client: Ensolum Project/Site: EVG 43-01

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 Ord	ler No:	

Project Manager:	Kalei	Jennings				Bill to: (if	different)	Kalei Jennings					Work Order Comments					
Company Name:	Enso					Compan			Ensol		<u> </u>			Program: UST/PST PRP Brownfields RRC Superfund					
Address:		National	Parks H	lwy			Address: 3122 National Parks Hwy					State of Project:							
City, State ZIP:		bad, NM (City, Sta			Carls	bad, N	M 88220			Reporting: Level II Level III PST/UST TRRP Level IV					
Phone:	303-8	87-2946			Email:	Kjennin	innings@ensolum.com			Deliverables: EDD ADaPT Other:				r:					
Project Name:	1	FV	G 43-0	1	Turn	Around				QUEST			Preserv	ative Codes					
Project Number:			20570		✓ Routine	Rus	h	Pres.							None: NO				
Project Location:					Due Date:				(0							Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na			
Sampler's Name:		Con	ner Sho	ore	TAT starts the			ع و										HNO ₃ : HN	
SAMPLE RECE	IPT	Temp B	Blank:	(Es No	Wet Ice:	Yes	No	nete				(141:11)(01:14)	HIHAB				H₃PO₄: HP		
Samples Received Intact: Res			Yes No MA Correction Factor:			TM-07		Parameters	PA: 300.0)							NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃			
Sample Custody Secondary Containers:	als:	Yes No	NID	Temperature f		5.	9		CHLORIDES (EPA:	(8015)	3021)	890-3329	890-3329 Chain of Custody		Custody			Acetate+NaOH: Zn OH+Ascorbic Acid: SAPC	
Sample Ide	ntificati	ion	Matrix	Date Sampled	Time Sampled	Depth Grab/ # of Comp Cont	CHLORI PH (80	тРН (80	TPH (8015)						Sample	Comments			
SSO)1		S	10/27/2022	12:00	0.5'	Grab	1	х	х	х						Incident ID:		
SSC			S	10/27/2022	12:05	0.5'	Grab	1	х	х	х								
SSC)3		S	10/27/2022	12:10	0.5'	Grab	1	х	х	Х						Cost Center:		
SSC)4		S	10/27/2022	12:10	0.5'	Grab	1	х	х	х								
																\perp	AFE:		
		_																	
								=											
								_			CW					+			

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

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
antala	Anada Stut	10/28/22 12	PQ-		
- W			4		
			6		

Login Sample Receipt Checklist

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

Login Number: 3329 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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 Source: Eurofins Midland** List Number: 2

List Creation: 10/31/22 09:20 AM

Creator: Rodriguez, Leticia

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

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<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

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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

Released to Imaging: 7/14/2023 8:07:04 AM

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 2:23:20 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: 890-4271-1 SDG: Lea County NM

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Definitions/Glossary

Job ID: 890-4271-1 Client: Ensolum Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

Qualifiers

GC VOA

Qualifier **Qualifier Description** 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. 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.

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Glossary

DL, RA, RE, IN

DLC

EDL

LOD

LOQ

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 Contains No Free Liquid **CNF** Duplicate Error Ratio (normalized absolute difference) DER Dil Fac **Dilution Factor** Detection Limit (DoD/DOE)

MDA MDC

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE)

Decision Level Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MOI Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present **Practical Quantitation Limit PQL**

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

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 Job ID: 890-4271-1 Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

5.16

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

Sample Depth: 0.5

Chloride

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 - 1	Total BTEX Cald	culation						
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
-								
• •	el Range Organ	ics (DRO) (GC)					
: Method: SW846 8015 NM - Diese		ics (DRO) (Qualifier	GC)	Unit	D	Prepared	Analyzed	Dil Fac
• •		Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/21/23 09:46	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	Result <49.9	Qualifier U	RL 49.9		<u>D</u>	Prepared		Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.9 sel Range Orga	Qualifier U	RL 49.9		<u>D</u>	Prepared Prepared		1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte	Result <49.9 sel Range Orga	Qualifier Unics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg	_ =	<u> </u>	03/21/23 09:46	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	Result <49.9 sel Range Orga Result	Qualifier Unics (DRO) Qualifier	RL 49.9 (GC)	mg/Kg	_ =	Prepared	03/21/23 09:46 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL 49.9 (GC)	mg/Kg	_ =	Prepared	03/21/23 09:46 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9	Qualifier U nics (DRO) Qualifier U U *+	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10	03/21/23 09:46 Analyzed 03/13/23 19:10 03/13/23 19:10	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.9 sel Range Orga Result <49.9	Qualifier U nics (DRO) Qualifier U U *+	RL 49.9 (GC) RL 49.9	mg/Kg Unit mg/Kg	_ =	Prepared 03/13/23 12:10	03/21/23 09:46 Analyzed 03/13/23 19:10	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U *+	RL 49.9 (GC) RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10 03/13/23 12:10 Prepared	03/21/23 09:46 Analyzed 03/13/23 19:10 03/13/23 19:10 03/13/23 19:10 Analyzed	1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result < 49.9 Sel Range Orga Result < 49.9 < 49.9 < 49.9	Qualifier U nics (DRO) Qualifier U U *+	RL 49.9 (GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10 03/13/23 12:10	03/21/23 09:46 Analyzed 03/13/23 19:10 03/13/23 19:10 03/13/23 19:10	1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U *+	RL 49.9 (GC) RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10 03/13/23 12:10 Prepared	03/21/23 09:46 Analyzed 03/13/23 19:10 03/13/23 19:10 03/13/23 19:10 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <49.9	Qualifier U nics (DRO) Qualifier U U *+ U Qualifier	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10 03/13/23 12:10 Prepared 03/13/23 12:10	03/21/23 09:46 Analyzed 03/13/23 19:10 03/13/23 19:10 Analyzed 03/13/23 19:10	Dil Fac

4.99

mg/Kg

03/20/23 02:46

Surrogate Summary

Client: Ensolum Job ID: 890-4271-1
Project/Site: Maverick Buckeye 43-01 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	
890-4271-1	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	

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 Rec
		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	
890-4271-1	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+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum

Job ID: 890-4271-1

SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48749/5-A

Project/Site: Maverick Buckeye 43-01

Matrix: Solid

Analysis Batch: 48814

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48749

MB	MB	

Analyte	Result	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

MB MB

Surrogate	%Recovery 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

мв мв

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 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

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepar	ed	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

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery 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

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

LCCD LCCD

Cnika

QC Sample Results

Client: Ensolum Job ID: 890-4271-1 Project/Site: Maverick Buckeye 43-01 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

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

LCSD LCSD

Surrogate	%Recovery (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

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene U F1 0.0998 0.03377 F1 34 70 - 130 <0.00201 mg/Kg Toluene <0.00201 UF1 0.0998 0.03745 F1 38 70 - 130 mg/Kg Ethylbenzene 0.0998 0.02988 F1 30 70 - 130 < 0.00201 UF1 mg/Kg 0.200 m-Xylene & p-Xylene <0.00402 U F1 0.05821 F1 29 70 - 130 mg/Kg o-Xylene <0.00201 UF1 0.0998 0.03159 F1 mg/Kg 32 70 - 130

MS MS

Surrogate	%Recovery 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

7											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

MB MB

<50.0 U

Result Qualifier

Surroyate	76Recovery	Qualifier	Lillins
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

Prepared

03/13/23 08:40

Prep Batch: 48469

03/13/23 08:55

Gasoline Range Organics (GRO)-C6-C10

Analyte

Eurofins Carlsbad

RL

50.0

Unit

mg/Kg

Client: Ensolum

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

Prep Batch: 48469

ole ID: Method Blank	
Prep Type: Total/NA	
Trop Typo: Totaliti	

Dil Fac

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

Lab Sample ID: MB 880-48469/1-A **Matrix: Solid**

Lab Sample ID: LCS 880-48469/2-A

Project/Site: Maverick Buckeye 43-01

Analysis Batch: 48421

	MB I	MB						
Analyte	Result (Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		03/13/23 08:40	03/13/23 08:55	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0 l	U	50.0	mg/Kg		03/13/23 08:40	03/13/23 08:55	1

LCS LCS

742.1

1373 *+

LCSD LCSD

907.2

1286

Result Qualifier

Result Qualifier

Unit

mg/Kg

mg/Kg

Unit

mg/Kg

mg/Kg

D

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

Limits

MB MB

Spike

Added

1000

1000

Spike

Added

1000

1000

Client Sample ID: Lab Control Sample

Prepared

03/13/23 08:40

03/13/23 08:40

%Rec

74

137

129

Client Sample ID:

Prep Type: Total/NA Prep Batch: 48469

Limits

70 - 130

70 - 130

Analyzed

03/13/23 08:55

03/13/23 08:55

Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)

Surrogate

Analyte

C10-C28)

(GRO)-C6-C10

1-Chlorooctane

Analyte

Matrix: Solid

Analysis Batch: 48421

LCS LCS Qualifier Limits %Recovery 70 - 130 99

Lab Sample ID: LCSD 880-48469/3-A

Matrix: Solid Analysis Batch: 48421

Gasoline Range Organics

Diesel Range Organics (Over

o-Terphenyl 99 70 - 130

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

> %Rec **RPD** %Rec Limits RPD Limit 91 70 - 130 20 20

> > 7

20

LCSD LCSD Surrogate %Recovery 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
				-

70 - 130

Prep Type: Total/NA Prep Batch: 48469

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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

QC Sample Results

Client: Ensolum Job ID: 890-4271-1 Project/Site: Maverick Buckeye 43-01 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 Analysis Batch: 48421 Prep Type: Total/NA Prep Batch: 48469

Sample Sample Spike MSD MSD RPD Result Qualifier Limit Analyte Added Result Qualifier Unit %Rec Limits RPD Gasoline Range Organics <49.9 U 999 842.2 mg/Kg 84 70 - 130 2 20 (GRO)-C6-C10 999 Diesel Range Organics (Over <49.9 U*+ 916.1 mg/Kg 87 70 - 130 2

C10-C28)

MSD MSD

Surrogate	%Recovery	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 **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 49126

мв мв

Analyte	Result	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 Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 49126

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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 **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 49126

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	268.7		ma/Ka		107	90 110		20	

Lab Sample ID: 890-4272-A-1-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 49126

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	<4 98	U F1	249	281.0	F1	ma/Ka		111	90 110	

Lab Sample ID: 890-4272-A-1-E MSD

Matrix: Solid

Analysis Batch: 49126

Analysis Daton. 43120											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	<4.98	U F1	249	280.1	F1	mg/Kg		111	90 - 110		20

Eurofins Carlsbad

Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

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

Job ID: 890-4271-1

Project/Site: Maverick Buckeye 43-01

SDG: Lea County NM

HPLC/IC

Leach Batch: 48591

Lab Sample ID 890-4271-1	Client Sample ID SS08	Prep Type Soluble	Matrix Solid	Method DI Leach	Prep Batch
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

Eurofins Carlsbad

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Lab Chronicle

Client: Ensolum Job ID: 890-4271-1 Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

Client Sample ID: SS08 Lab Sample ID: 890-4271-1

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Job ID: 890-4271-1

Project/Site: Maverick Buckeye 43-01

SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority Texas		ogram	Identification Number	Expiration Date 06-30-23	
		ELAP	T104704400-22-25		
The following analytes	are included in this report by	it the laboratory is not cortifi	ed by the governing authority. This list ma	av include analytes for	
the agency does not of	• •	it the laboratory is not certifi	ed by the governing authority. This list the	ay include arialytes for	
0 ,	• •	Matrix	Analyte	ay include analytes for	
the agency does not of	fer certification.	•	, , ,	ay include analytes for	

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Method Summary

Client: Ensolum

Project/Site: Maverick Buckeye 43-01

Job ID: 890-4271-1

SDG: Lea County NM

Laboratory	
EET MID	
EET MID	

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

	a a				
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

Received by OCD: 4/21/2023 12:52:01 PM

Page 18 of 20



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.co	om Page	of
Project Manager:	Josh Adam	าร			Bill to: (if	different)		Josh .	Adams	3								Wo	rk Orde	r Comments	
Company Name:	Ensolum, L	.LC			Compan	y Name:		Ensol	lum, Ll	LC					Prog	ram: U	ST/PS	Г 🗌 Р	RP Bro	ownfields RRC	Superfund
Address:	601 N Mar	ienfeld St	Suite 400		Address	:		601 N	Marie	enfeld :	St Suite	400				of Pro	-				
City, State ZIP:	Midland, T.	X 79701			City, Sta	te ZIP:		Midla	nd, TX	7970					Reporting: Level II Level III PST/UST TRRP Level					Level IV	
Phone:	303-517-84			Email:		dams@ensolum.com. dnikanorov@ensolum.com					Deliverables: EDD ADa				aPT Other:						
Project Name:	Maye	rick Bucke	ve 43-01	Turr	Around				ANALYSIS RI				EQUEST			Preserv	Preservative Codes				
Project Number:		03D20570		Routine	Rus	h	Pres. Code										None: NO	None: NO DI Water: H ₂ O			
Project Location:	L	ea County	. NM	Due Date:			Code												Cool: Cool	MeOH: Me	
Sampler's Name:	's Name: Dmitry Nikanorov T		TAT starts th	ne day received by ceived by 4:30pm		ξ.						 				HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na					
SAMPLE RECE Samples Received I Cooler Custody Sea Sample Custody Se	ntact: (Y	mp Blank: les No No N/A	Temperature	actor: Reading:	4	10	Parameters	CHLORIDES (EPA: 300.0)			890-4271 Chair		Chain	n of Custody			-	H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC			
Total Containers: Sample Ide	ntification	Matri	Date Sampled	Time Sampled	Depth	Grab/	# of Cont	CHLORIDE	TPH (8015)	BTEX (8021											Comments
SS	08	S	3/8/2023	14:20	0.5'	Grab	1	Х	Х	Х											
				H																NAPP22307	52440
													+								
	/																				
Total 200.7 / 6	010 200.	8 / 6020:	8F	RCRA 13PF	M Tex	as 11	AI SI	b As	ВаВ	е В	Cd Ca	Cr C	o Cu	Fe P	b Mg M	n Mo	Ni K	Se /	Ag SiO ₂	Na Sr Tl Sn	J V Zn

TCLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U Hg: 1631 / 245.1 / 7470 / 7471

Circle Method(s) and Metal(s) to be analyzed

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
V W	M. O'Pall	3-10-23 0859	2		
	manda Stut		4		
			6		one ad Date 198/25/2020 Rev

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4271-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 4271 List Number: 1

Creator: Stutzman, Amanda

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	

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4271-1

SDG Number: Lea County NM

List Source: Eurofins Midland

List Creation: 03/13/23 08:24 AM

Creator: Rodriguez, Leticia

Login Number: 4271

List Number: 2

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	N/A	

Released to Imaging: 7/14/2023 8:07:04 AM

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<6mm (1/4").

Environment Testing

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

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 2:24:00 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of

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

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

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Definitions/Glossary

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

Qualifiers

GC VOA

Qualifier **Qualifier Description** 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. 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 Contains No Free Liquid **CNF**

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac **Dilution Factor**

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) Limit of Quantitation (DoD/DOE) LOQ

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 MOI 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

Practical Quantitation Limit PQL

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

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-A), (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.

Matrix: Solid

Lab Sample ID: 890-4272-1

Client Sample Results

Client: Ensolum Job ID: 890-4272-1
Project/Site: Maverick Buckeye 43-01 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'

Chloride

	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 Cald	culation						
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 - Dies	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	_	Duamanad		
	rtoouit		KL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9		49.9	mg/Kg	— —	Prepared	03/20/23 09:52	Dil Fac
	<49.9	U	49.9		_	Prepared		Dil Fac
Total TPH	<49.9	U	49.9		D	Prepared		Dil Fac Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	<49.9	nics (DRO) Qualifier	49.9 (GC)	mg/Kg	_ =	<u> </u>	03/20/23 09:52	1
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<49.9 sel Range Orga Result	nics (DRO) Qualifier	49.9 (GC)	mg/Kg	_ =	Prepared	03/20/23 09:52 Analyzed	1 Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10	sel Range Orga Result <49.9	nics (DRO) Qualifier U U *+	(GC) RL 49.9	mg/Kg Unit mg/Kg	_ =	Prepared 03/13/23 12:10	03/20/23 09:52 Analyzed 03/13/23 19:33	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.9 sel Range Orga Result <49.9 <49.9	nics (DRO) Qualifier U *+	(GC) RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10	03/20/23 09:52 Analyzed 03/13/23 19:33 03/13/23 19:33	1 Dil Fac 1 1
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 sel Range Orga Result <49.9 <49.9 <49.9	nics (DRO) Qualifier U *+	49.9 (GC) RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10 03/13/23 12:10	03/20/23 09:52 Analyzed 03/13/23 19:33 03/13/23 19:33	1 Dil Fac 1 1
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	\$\int \text{49.9}\$ \$\int \text{Result}\$ \$\int \text{49.9}\$ \$\int \text{49.9}\$ \$\int \text{49.9}\$ \$\int \text{Recovery}\$	nics (DRO) Qualifier U *+	49.9 (GC) RL 49.9 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10 03/13/23 12:10 Prepared	03/20/23 09:52 Analyzed 03/13/23 19:33 03/13/23 19:33 03/13/23 19:33 Analyzed	Dil Fac 1 1 Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.9 sel Range Orga Result <49.9 <49.9 <49.9 **Recovery 110 <112	Oualifier U*+ U Qualifier	49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 03/13/23 12:10 03/13/23 12:10 03/13/23 12:10 Prepared 03/13/23 12:10	03/20/23 09:52 Analyzed 03/13/23 19:33 03/13/23 19:33 Analyzed 03/13/23 19:33	1 Dil Fac 1 1 1 1 Dil Fac 1

4.98

mg/Kg

<4.98 U F1

Eurofins Carlsbad

03/20/23 02:51

Surrogate Summary

Client: Ensolum

Job ID: 890-4272-1

Project/Site: Maverick Buckeye 43-01

SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
_ab 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	
390-4272-1	SS07	82	97	
CS 880-48750/1-A	Lab Control Sample	105	103	
.CSD 880-48750/2-A	Lab Control Sample Dup	107	103	
/IB 880-48749/5-A	Method Blank	91	90	
MB 880-48750/5-A	Method Blank	95	88	

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 Recov	very (Accepta
		1CO1	OTPH1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
80-25807-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

Client: Ensolum

Job ID: 890-4272-1

SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48749/5-A

Lab Sample ID: MB 880-48750/5-A

Matrix: Solid

Analysis Batch: 48814

Project/Site: Maverick Buckeye 43-01

Matrix: Solid Analysis Batch: 48814 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48749

	MB	MB						
Analyte	Result	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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Pre	pared	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

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48750

	IVID	IVID						
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 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

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepar	ed	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

Analysis Batch: 48814

Lab Sample ID: LCS 880-48750/1-A **Matrix: Solid**

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

Prep Batch: 48750

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery 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

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

LCCD LCCD

Cnika

QC Sample Results

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

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

Lab Sample ID: LCSD 880-48750/2-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Prep Batch: 48750

Analysis Batch: 48814

Spike	LCSD	LCSD				%Rec		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.100	0.09418		mg/Kg		94	70 - 130	2	35
0.100	0.09008		mg/Kg		90	70 - 130	0	35
0.200	0.1828		mg/Kg		91	70 - 130	0	35
0.100	0.09319		mg/Kg		93	70 - 130	0	35
	Added 0.100 0.100 0.200	Added Result 0.100 0.09418 0.100 0.09008 0.200 0.1828	Added Result Qualifier 0.100 0.09418 Qualifier 0.100 0.09008 Qualifier 0.200 0.1828 Qualifier	Added Result Qualifier Unit 0.100 0.09418 mg/Kg 0.100 0.09008 mg/Kg 0.200 0.1828 mg/Kg	Added Result Qualifier Unit D 0.100 0.09418 mg/Kg 0.100 0.09008 mg/Kg 0.200 0.1828 mg/Kg	Added Result Qualifier Unit D %Rec 0.100 0.09418 mg/Kg 94 0.100 0.09008 mg/Kg 90 0.200 0.1828 mg/Kg 91	Added Result Qualifier Unit D %Rec Limits 0.100 0.09418 mg/Kg 94 70 - 130 0.100 0.09008 mg/Kg 90 70 - 130 0.200 0.1828 mg/Kg 91 70 - 130	Added Result Qualifier Unit D %Rec Limits RPD 0.100 0.09418 mg/Kg 94 70 - 130 2 0.100 0.09008 mg/Kg 90 70 - 130 0 0.200 0.1828 mg/Kg 91 70 - 130 0

LCSD LCSD %Recovery Qualifier Surrogate 4-Bromofluorobenzene (Surr) 107

70 - 130 1,4-Difluorobenzene (Surr) 103 70 - 130

Lab Sample ID: 880-25777-A-1-A MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Limits

Matrix: Solid Analysis Batch: 48814

	Sample	Spike	MS	MS				%Rec
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
<0.00201	U F1	0.0998	0.03377	F1	mg/Kg		34	70 - 130
<0.00201	U F1	0.0998	0.03745	F1	mg/Kg		38	70 - 130
<0.00201	U F1	0.0998	0.02988	F1	mg/Kg		30	70 - 130
<0.00402	U F1	0.200	0.05821	F1	mg/Kg		29	70 - 130
<0.00201	U F1	0.0998	0.03159	F1	mg/Kg		32	70 - 130
	<0.00201 <0.00201 <0.00201 <0.00402	Result Qualifier U F1	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201

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

o-Xylene

Lab Sample ID: 880-25777-A-1-B MSD	Client Sample ID: Matrix Spike Duplicate
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 48814	Prep Batch: 48750

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Benzene <0.00201 U F1 0.0990 0.03954 F1 40 70 - 130 16 35 mg/Kg Toluene <0.00201 UF1 0.0990 0.04026 F1 mg/Kg 41 70 - 130 7 35 Ethylbenzene <0.00201 UF1 0.0990 0.03408 F1 mg/Kg 34 70 - 130 13 35 0.198 0.06759 F1 34 70 - 130 m-Xylene & p-Xylene <0.00402 UF1 mg/Kg 15 35

0.03588 F1

mg/Kg

36

70 - 130

0.0990

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

<0.00201 UF1

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

Lab Sample ID: MB 880-48469/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 48421 Prep Batch: 48469

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

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13

35

Prep Batch: 48750

Client: Ensolum

Matrix: Solid

Analysis Batch: 48421

Project/Site: Maverick Buckeye 43-01

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

County NM

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

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

Lab Sample ID: LCS 880-48469/2-A

Analysis Batch: 48421

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

Prep Batch: 48469

ı		IVID	IVID						
	Analyte	Result	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
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/13/23 08:40	03/13/23 08:55	1
ı									

MB MB

MR MR

Surrogate	%Recovery	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

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 48469

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

LCS LCS

Surrogate	%Recovery	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

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

 Surrogate
 %Recovery
 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

Diesel Range Organics (Over

Client Sample ID: Matrix Spike

70 - 130

Prep Type: Total/NA Prep Batch: 48469

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <49.9 U 998 858.5 70 - 130 Gasoline Range Organics 86 mg/Kg (GRO)-C6-C10

932.0

mg/Kg

998

C10-C28)

	INIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	91		70 - 130

<49.9 U*+

Eurofins Carlsbad

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12

Job ID: 890-4272-1

Client: Ensolum Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

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

89

Lab Sample ID: 880-25807-	A-1-D MSD		Client Sample ID: Matrix Spike Duplic								
Matrix: Solid									Prep 1	ype: To	tal/NA
Analysis Batch: 48421									Prep	Batch:	48469
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U	999	842.2		mg/Kg		84	70 - 130	2	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U *+	999	916.1		mg/Kg		87	70 - 130	2	20
C10-C28)											
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	109		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

o-Terphenyl

Matrix: Solid

Lab Sample ID: MB 880-48591/1-A Matrix: Solid Analysis Batch: 49126						Client S	ample ID: Metho Prep Type:	
	МВ	MB						
Analyte	Result	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	0.00		0.00	99	CI	iont Commis	ID: Lab Control	Camal

70 - 130

Matrix: Solid			Prep Type: Soluble
Analysis Batch: 49126			
	Spike	LCS LCS	%Rec

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	268.8		mg/Kg		108	90 - 110	_
Lab Sample ID: LCSD 880-48591/3-A				Clier	nt Sam	ple ID: I	_ab Control Sample Du	р

Analysis Batch: 49126									
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	 250	268.7		ma/Ka		107	90 110		20

Lab Sample ID: 890-4272-1 MS Matrix: Solid					Client Sample ID: SS07 Prep Type: Soluble
Analysis Batch: 49126	Sample	Sample	Spike	MS MS	S %Rec

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

Lab Sample ID: 890-4272-1 MSD Matrix: Solid Analysis Batch: 49126							Client Samp Prep Ty	
Analysis Batch. 43120	Sample	Sample	Spike	MSD	MSD		%Rec	RPD

Analyte Result Qualifier Added Result Qualifier Unit Limits Limit 249 <4.98 UF1 280.1 F1 90 - 110 Chloride mg/Kg

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Prep Type: Soluble

QC Association Summary

Client: Ensolum

Project/Site: Maverick Buckeye 43-01

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

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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 890-4272-1	Client Sample ID SS07	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 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 890-4272-1	Client Sample ID SS07	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
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 890-4272-1	Client Sample ID SS07	Prep Type Soluble	Matrix Solid	Method DI Leach	Prep Batch
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

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Lab Chronicle

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

Client Sample ID: SS07 Lab Sample ID: 890-4272-1

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

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Job ID: 890-4272-1 Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas		ELAP	T104704400-22-25	06-30-23
The following analytes	are included in this report, but	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes fo
the agency does not of	• •	ic and laboratory to flot corum	bu by the governing authority. This list his	ay include analytes to
,	• •	Matrix	Analyte	ay molude analytes to
the agency does not of	fer certification.	,	, , ,	

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

Eurofins Carlsbad

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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'

Received by OCD: 4/21/2023 12:52:01 PM

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eurofins

Environment Testing

Chain of Custody

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

Marie Order No.		
Work Order No:		

Project Manager:	Josh	Adams				Bill to: (if	different)	Josh .	Adam	5												omments						
Company Name:	Enso	lum, LLC				Compan	y Name		Ensol	um, Ll	.C						Progra	m: US	T/PS	Г 🗌 Р	RP B	3rownfi	ields 🗌 RF	RC Superf	und 🗌				
Address:	601 N	N Marienfo	eld St S	uite 400		Address			601 N	Marie	enfeld	St Suite	400				State o												
City, State ZIP:	Midla	nd, TX 79	9701			City, Sta	te ZIP:		Midla	nd, TX	7970	1									vel III] PST/I	UST [] TR	RP Leve	el IV				
Phone:	303-5	17-8437			Email:	jadams	@enso	lum.c	om, d	nikan	orov@	ensol	um.co	m			Deliver	ables	EDD		A	DaPT	Oti	ner:					
Project Name:		Maverick	Buckey	e 43-01	Turr	Around							-	ANAL	YSIS	REQ	UEST						Prese	rvative Code	es				
Project Number:		030	205703	35	☑ Routine	Rus	h	Pres. Code														N	None: NO	DI Wate	r: H ₂ O				
Project Location:		Lea C	County,	NM	Due Date:													1				c	Cool: Cool	MeOH: I	Me				
Sampler's Name: PO #:		Dmitry	/ Nikand	orov	TAT starts the			S					1	י ונמוננ	1814981											1	HCL: HC H ₂ S0 ₄ : H ₂	HNO ₃ : H NaOH: N	
SAMPLE RECE	PT	Temp E	Blank:	Yes No	Wet Ice:	Xes	No	arameters	()				1										H ₃ PO ₄ : HP						
Samples Received II Cooler Custody Sea Sample Custody Sea Total Containers:	s:	Yes No	1	Thermometer Correction Fa Temperature Corrected Te	ctor: Reading:	Ton		Parar	DES (EPA: 300.0)	15)	021		8	90-42	272 C	hain o	ain of Custody				 	NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPO		PC					
Sample Ider	itificati	ion	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES	TPH (8015)	BTEX (8021												Samp	le Commen	ts				
SSC	7		S	3/8/2023	14:10	0.5'	Grab	1_	Х	Х	Х																		
													=							_		1	NAPP2230	752440					
			1														1					丰							
	/		DM														=	=				4							
													_									1							
Total 200.7 / 60		200.8 / 6			CRA 13PF															Se			Sr TI Sr 245.1 / 747						

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
F		Mr. O'Pell		2		
-	3	marala Stat	3-10-23 085	9		
1	}	1		5		evised Date: 08/25/2020 Rev. 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4272-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 4272 List Number: 1

Creator: Stutzman, Amanda

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	

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4272-1

SDG Number: Lea County NM

List Source: Eurofins Midland

List Creation: 03/13/23 08:24 AM

Login Number: 4272 List Number: 2

Creator: Rodriguez, Leticia

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

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<6mm (1/4").

Environment Testing

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

Released to Imaging: 7/14/2023 8:07:04 AM

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 <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440 Client: Ensolum Project/Site: Maverick Buckeye 43-01 Laboratory Job ID: 890-4273-1 SDG: Lea County NM

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Definitions/Glossary

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

Qualifiers

GC VOA

Qualifier **Qualifier Description** 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. 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 Contains No Free Liquid **CNF**

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac **Dilution Factor**

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) Limit of Quantitation (DoD/DOE) LOQ

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 MOI 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

Practical Quantitation Limit PQL

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

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.

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Client Sample Results

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

Client Sample ID: SS06

Sample Depth: 0.5'

Lab Sample ID: 890-4273-1 Date Collected: 03/08/23 14:00 Matrix: Solid Date Received: 03/10/23 08:59

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	
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 - 1	otal BTEX Cald	culation						
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 - Diese Analyte		ics (DRO) (Qualifier	GC) RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/21/23 09:46	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (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
Oll 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	Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Surrogate Summary

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

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)
	1001	OTPH1	
ab Sample ID Client S	Sample ID (70-130)	(70-130)	
0-25807-A-1-C MS Matrix S	Spike 112	91	
80-25807-A-1-D MSD Matrix S	Spike Duplicate 109	89	
90-4273-1 SS06	93	99	
CS 880-48469/2-A Lab Co	ntrol Sample 99	99	
CSD 880-48469/3-A Lab Co	ntrol Sample Dup 107	109	
IB 880-48469/1-A Method	l Blank 133 S1+	133 S1+	
880-48469/1-A Method Surrogate Legend	I Blank 133 S1+	133 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

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

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-48749/5-A

Lab Sample ID: MB 880-48750/5-A

Matrix: Solid

Analysis Batch: 48814

Matrix: Solid

Analysis Batch: 48814

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48749

	MB	MB						
Analyte	Result	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

MB MB

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

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 48750

	MB	МВ						
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 01:07	•
Toluene	<0.00200	U	0.00200	mg/Kg		03/16/23 12:22	03/18/23 01:07	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/16/23 12:22	03/18/23 01:07	•
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/16/23 12:22	03/18/23 01:07	•
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/16/23 12:22	03/18/23 01:07	•
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/16/23 12:22	03/18/23 01:07	•

мв мв

Surrogate	%Recovery	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

Client Sample ID: Lab Control Sample Dup

70 - 130

Prep Type: Total/NA Prep Batch: 48750

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	105	70 _ 130
1.4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: LCSD 880-48750/2-A

Benzene

Matrix: Solid							Prep	Type: To	tal/NA
Analysis Batch: 48814							Pre	p Batch:	48750
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit

0.09542

mg/Kg

Eurofins Carlsbad

0.100

Dil Fac

QC Sample Results

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

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

LCSD LCSD

Surrogate	%Recovery 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
Due		Т.	4-I/NIA

Prep Type: Total/NA

Prep Batch: 48750

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene <0.00201 U F1 0.0998 0.03377 F1 34 70 - 130 mg/Kg Toluene <0.00201 UF1 0.0998 0.03745 F1 38 70 - 130 mg/Kg Ethylbenzene 0.0998 0.02988 F1 30 70 - 130 <0.00201 UF1 mg/Kg 0.200 m-Xylene & p-Xylene <0.00402 UF1 0.05821 F1 29 70 - 130 mg/Kg o-Xylene <0.00201 UF1 0.0998 0.03159 F1 mg/Kg 32 70 - 130

MS MS

Surrogate	%Recovery 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

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

Surrogate	%Recovery	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

мв мв Result Qualifier RL Unit Prepared Gasoline Range Organics <50.0 U 50.0 mg/Kg 03/13/23 08:40 03/13/23 08:55 (GRO)-C6-C10

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

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

Client Sample ID: Method Blank Lab Sample ID: MB 880-48469/1-A **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 48421 Prep Batch: 48469

	MB	MB						
Analyte	Result	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
	МВ	MB						
Surrogate	%Recovery	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 Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 48421 Prep Batch: 48469 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 742.1 74 70 - 130 mg/Kg (GRO)-C6-C10 1000 1373 *+ Diesel Range Organics (Over mg/Kg 137 70 - 130C10-C28) LCS LCS Qualifier Limits Surrogate %Recovery 1-Chlorooctane 70 - 130 99 o-Terphenyl 99 70 - 130

Lab Sample ID: LCSD 880-48469/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 48421** Prep Batch: 48469 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier %Rec Limits RPD Limit Unit D Gasoline Range Organics 1000 907.2 mg/Kg 91 70 - 130 20 20 (GRO)-C6-C10

1286

1000

Diesel Range Organics (Over mg/Kg C10-C28) LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 107 70 - 130 109 70 - 130

Lab Sample ID: 880-25807-A-1-C MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 48421 Prep Batch: 48469

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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		

Diesel Range Organics (Over	<49.9	U *+	998	932.0	mg/Kg	89	70 - 130
C10-C28)							
	MS	MS					
Surrogate	%Recovery	Qualifier	Limits				
1-Chlorooctane	112		70 - 130				
o-Terphenyl	91		70 - 130				

Eurofins Carlsbad

129

70 - 130

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o-Terphenyl

Job ID: 890-4273-1

Client: Ensolum Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

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

Client Sample ID: Matrix Spike Duplicate

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

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	842.2		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over	<49.9	U *+	999	916.1		mg/Kg		87	70 - 130	2	20

C10-C28)

MSD MSD Limits Surrogate %Recovery Qualifier 70 - 130 1-Chlorooctane 109 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

Analysis Batch: 49126

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

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

Analysis Batch: 49126

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

Lab Sample ID: LCSD 880-48591/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 49126

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

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

Analysis Batch: 49126

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

Lab Sample ID: 890-4272-A-1-E MSD

Matrix: Solid

Analysis Batch: 49126 Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Qualifier Analyte Result %Rec Limits RPD Limit Unit D 249 Chloride <4.98 UF1 280.1 F1 111 90 - 110 20 mg/Kg

Eurofins Carlsbad

Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

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 Batc
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

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Lab Chronicle

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

Client Sample ID: SS06 Lab Sample ID: 890-4273-1 Date Collected: 03/08/23 14:00

Matrix: Solid

Date Received: 03/10/23 08:59

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Job ID: 890-4273-1

Project/Site: Maverick Buckeye 43-01

SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority Texas		ogram	Identification Number	Expiration Date 06-30-23	
		ELAP	T104704400-22-25		
The following analytes	are included in this report by		and the state of the second control of the s		
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for	
,	• '	Matrix	ed by the governing authority. This list ma	ay include analytes for	
the agency does not of	fer certification.	•	, , ,	ay include analytes for	

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Method Summary

Client: Ensolum

Project/Site: Maverick Buckeye 43-01

Job ID: 890-4273-1

SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
800.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
Ol 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'

Received by OCD: 4/21/2023 12:52:01 PM



Circle Method(s) and Metal(s) to be analyzed

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

Project Manager:	Josh Ad	lams				Bill to: (if	differen	t)	Josh	Adam	s					Work Order Comments							
Company Name:	Ensolun	n, LLC				Company Name: Ensolum, LLC				P	Program: UST/PST PRP Brownfields RRC Superfund												
Address:	601 N N	larienfe	ld St S	uite 400		Address	:	601 N Marienfeld St Suite 400				State of Project:											
City, State ZIP:	Midland	, TX 79	701			City, Sta	te ZIP:		Midla	nd, T	7970	1				_			_	vel III [PST	/UST TR	RP Level IV
Phone:	303-517	-8437			Email:	jadams	@ensc	olum.c	om. d	Inikar	orov@	densol	um.cc	m			eliverat	les: EC	D 🗆	F	ADaPT	Oth	ner:
Project Name:	Ma	verick E	Buckey	e 43-01	Turr	Around								ANAL	YSIS F	REQUI	EST					Prese	vative Codes
Project Number:			205703		✓ Routine	Rus	h	Pres. Code														None: NO	DI Water: H
Project Location:		Lea C	ounty, I	NM	Due Date:																	Cool: Cool	MeOH: Me
Sampler's Name:		Dmitry	Nikano	rov	TAT starts th										1 1 1 1			'	1	HCL: HC	HNO ₃ : HN		
PO #:					the lab, if red		1:30pm	20												1		H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEI	PT	Temp B	lank:	(Yes) No	Wet Ice:	(Pes	No	net	6	1										Ì		H₃PO₄: HP	
Samples Received In	tact: (Yes	No	Thermometer	ID:	TWO	-907	arai	300.0)							Custody					NaHSO ₄ : NABIS		
Cooler Custody Seals	: Y	es No	WA	Correction Fa	ictor:	-D.	2	4	(EPA:	1			800 A	273 C	hain of				1	Na ₂ S ₂ O ₃ : NaSO ₃			
Sample Custody Seal	s: Y	es No	N/A	Temperature	Reading:	4	6	1	E)	1		-	090-4	2/30	Tiall Of	Cabie	-,			- 1	1	Zn Acetate+	
Total Containers:				Corrected Te	mperature:	4.	4		IDES	15)	(8021	1	1	i	i	- 1			1	1		NaOH+Asco	rbic Acid: SAPC
Sample Ident	tification		Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp		CHLORIDES	TPH (8015)	втех (Samp	le Comments
SSO	3		S	3/8/2023	14:00	0.5'	Grab	1	Х	Х	Х												
					/																	NAPP2230	752440
				1										-			-	+	-				
			\angle	DV																			
		\mathcal{A}		<u>V</u> .												_	-	+	-				
	-/															\dashv	-	-					
	/																						
Total 200.7 / 60	10 20	0.8 / 60	20:	8R	CRA 13PF	M Tex	as 11	AI St	As	ВаЕ	Be B	Cd Ca	Cr (Co Cı	u Fe F	b Mg	Mn N	10 Ni	K Se				
Circle Method(s) an	d Metal((s) to be	analyz	zed	TCLP / SE	P 601	0. 8RC	CRA	Sh A	s Ba	Be (d Cr	Co C	u Pb	Mn N	Io Ni	Se Ad	TIU		Hg: 1	631 /	245.1 / 747	U / 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 01	M. 012de	2			
3	AnadaStet	3-10-23 DES			
		6			10 + 00 PS P000 P - 20

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4273-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 4273 List Number: 1

Creator: Stutzman, Amanda

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	
s 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	

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Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-4273-1 SDG Number: Lea County NM

List Source: Eurofins Midland

Login Number: 4273 List Number: 2 List Creation: 03/13/23 08:24 AM

Creator: Rodriguez, Leticia

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

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

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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



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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Client: Ensolum
Project/Site: Maverick Buckeye 43-01
Laboratory Job ID: 890-4274-1
SDG: Lea County NM

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Definitions/Glossary

Job ID: 890-4274-1 Client: Ensolum Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

Qualifiers

GC VOA

Qualifier **Qualifier Description**

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.

Glossarv

DLC

RPD

Clossary	
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

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 Minimum Level (Dioxin) Most Probable Number MPN 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

Presumptive **PRES** QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Job ID: 890-4274-1 Project/Site: Maverick Buckeye 43-01 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.

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.

Matrix: Solid

Lab Sample ID: 890-4274-1

Client Sample Results

Client: Ensolum Job ID: 890-4274-1
Project/Site: Maverick Buckeye 43-01 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

Chloride

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 - 1	Total BTEX Cald	culation						
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 - Diese	el Range Organ	ics (DRO) (GC)					
Analyte		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 - Dies	sel Range Orga	nics (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
Oll 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	Chromatograp	hy - Solubl	e					

5.04

mg/Kg

6.01

Eurofins Carlsbad

03/20/23 03:11

Surrogate Summary

Client: Ensolum Job ID: 890-4274-1
Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

•				Percent Surrogate Re
		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-Bromofluorobenzer	ne (Surr)			
DFBZ = 1,4-Difluorobenzene	e (Surr)			

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

Matrix: Solid Prep Type: Total/NA

		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+

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

Released to Imaging: 7/14/2023 8:07:04 AM

1

2

8

10

13

QC Sample Results

Client: Ensolum Job ID: 890-4274-1 Project/Site: Maverick Buckeye 43-01 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

1

	MB	MB						
Analyte	Result	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	
Toluene	<0.00200	U	0.00200	mg/Kg		03/16/23 13:03	03/19/23 14:51	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/16/23 13:03	03/19/23 14:51	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/16/23 13:03	03/19/23 14:51	
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/16/23 13:03	03/19/23 14:51	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/16/23 13:03	03/19/23 14:51	,

MB MB

Surrogate	%Recovery	Qualifier Lin	nits	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

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery 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

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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	

LCSD LCSD

Surrogate	%Recovery	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

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

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QC Sample Results

Client: Ensolum Job ID: 890-4274-1 Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

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

Lab Sample ID: 890-4259-A-1-E MS

Lab Sample ID: 890-4259-A-1-F MSD

Matrix: Solid

Matrix: Solid

Analysis Batch: 48915

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

Prep Batch: 48751

Sample	Sample	Spike	MS	MS				%Rec		
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
<0.00201	U	0.101	0.1086		mg/Kg		108	70 - 130		
<0.00402	U	0.202	0.2384		mg/Kg		118	70 - 130		
<0.00201	U	0.101	0.1161		mg/Kg		115	70 - 130		
	Result <0.00201 <0.00402	Result Qualifier	Result Qualifier Added <0.00201	Result Qualifier Added Result <0.00201	<0.00201 U 0.101 0.1086 <0.00402 U 0.202 0.2384	Result Qualifier Added Result Qualifier Unit <0.00201	Result Qualifier Added Result Qualifier Unit mg/Kg D <0.00201	Result Qualifier Added Result Qualifier Unit D %Rec <0.00201	Result Qualifier Added Result Qualifier Unit D %Rec Limits <0.00201	Result Qualifier Added Result Qualifier Unit D %Rec Limits <0.00201

MS MS

Surrogate	%Recovery Qualifie	er Limits
4-Bromofluorobenzene (Surr)	111	70 - 130
1,4-Difluorobenzene (Surr)	83	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 48751

Analysis Batch: 48915 Sample Sample Spike MSD MSD Result Qualifier Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 0.0990 Benzene <0.00201 U 0.1172 mg/Kg 118 70 - 130 13 35 0.1059 107 Toluene <0.00201 U 0.0990 mg/Kg 70 - 130 1 35 Ethylbenzene <0.00201 U 0.0990 0.1083 mg/Kg 109 70 - 130 0 35 <0.00402 U 0.198 70 - 130 35 m-Xylene & p-Xylene 0.2330 mg/Kg 118 2 0.0990 <0.00201 U 0.1132 70 - 130 o-Xylene mg/Kg 114 3

MSD MSD

Surrogate	%Recovery	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

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

MB MB

MR MR

Surrogate	%Recovery	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

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

C10-C28)

Job ID: 890-4274-1 Client: Ensolum Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

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

LCS LCS

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

Lab Sample ID: LCSD 880-48469/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 48421

Prep Type: Total/NA

Prep Batch: 48469

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 1000 907.2 91 70 - 13020 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1286 129 mg/Kg 70 - 1307 20 C10-C28)

LCSD LCSD

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

Lab Sample ID: 880-25807-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 48421

Prep Type: Total/NA

Prep Batch: 48469

Sample Sample MS MS Spike Added Analyte Result Qualifier Result Qualifier Unit D %Rec Limits Gasoline Range Organics <49.9 U 998 858.5 mg/Kg 86 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U*+ 998 932.0 mg/Kg 89 70 - 130 C10-C28)

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

Lab Sample ID: 880-25807-A-1-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid**

Analysis Batch: 48421

Prep Type: Total/NA Prep Batch: 48469

Sample Sample MSD MSD RPD Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit U 999 842.2 Gasoline Range Organics <49.9 mg/Kg 84 70 - 130 2 20 (GRO)-C6-C10 Diesel Range Organics (Over <49.9 U*+ 999 916.1 mg/Kg 87 70 - 130 2 20 C10-C28)

MSD MSD

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

QC Sample Results

Client: Ensolum Job ID: 890-4274-1 Project/Site: Maverick Buckeye 43-01 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**

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

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

Analysis Batch: 49126

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %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

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

Lab Sample ID: 890-4272-A-1-C MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 49126

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

Lab Sample ID: 890-4272-A-1-E MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 49126

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit <4.98 U F1 249 280.1 F1 Chloride mg/Kg 111 90 - 110 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 890-4274-1	Client Sample ID SS05	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 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

Job ID: 890-4274-1

Project/Site: Maverick Buckeye 43-01

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

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<u>:</u>

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Lab Chronicle

Client: Ensolum Job ID: 890-4274-1 Project/Site: Maverick Buckeye 43-01 SDG: Lea County NM

Client Sample ID: SS05 Lab Sample ID: 890-4274-1

Date Collected: 03/08/23 13:50 Matrix: Solid Date Received: 03/10/23 08:59

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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

Job ID: 890-4274-1

Project/Site: Maverick Buckeye 43-01

SDG: Lea County NM

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date	
Texas	NE	ELAP	T104704400-22-25	06-30-23	
The following analytes	are included in this report by	it the laboratory is not cortifi	ed by the governing authority. This list ma	av include analytes for	
the agency does not of	• •	it the laboratory is not certifi	ed by the governing authority. This list his	ay include arialytes for	
0 ,	• •	Matrix	Analyte	ay include analytes for	
the agency does not of	fer certification.	•	, , ,	ay include analytes for	

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Method Summary

Client: Ensolum

Project/Site: Maverick Buckeye 43-01

Job ID: 890-4274-1

SDG: Lea County NM

Laboratory	
EET MID	
EET MID	

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

Received by OCD: 4/21/2023 12:52:01 PM



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 N	o:

www.xenco.com

Project Manager:	Josh Adams Bill to: (if different)					Work Order Comments																			
Company Name:	Ensol	um, LLC				Compan	iny Name: Ensolum, LLC						Program: UST/PST PRP Brownfields RRC Superfund												
Address:	601 N	Marienfe	eld St S	uite 400		Address: 601 N Marienfeld St Suite 400									roject:					_					
City, State ZIP:	Midlar	nd, TX 79	701			City, State ZIP: Midland, TX 79701						I .						T/UST [] TR	RP∐ L	evel IVLI					
Phone:	303-5	17-8437			Email:	jadams	@ensc	olum.c	om, d	nikan	orov@	Denso	lum.c	om			Deli	/erabl	es: ED	D \Box	/	ADaP1	T Ott	ner:	
Project Name:	T 1	Maverick	Buckey	e 43-01	Turr	Around								ANAL	YSIS	REC	UES	Т					Prese	rvative C	odes
Project Number:			205703		✓ Routine	Rusi	n	Pres.															None: NO	DIW	ater: H ₂ O
Project Location:		Lea C	County,	NM	Due Date:																		Cool: Cool	MeO	H: Me
Sampler's Name:			Nikano		TAT starts th	e day rece	ived by		1 1											Ì			HCL: HC		3: HN
PO #:					the lab, if red	ceived by 4	:30pm	2		1130(60) 1131 (6113 1511 5511								H ₂ S0 ₄ : H ₂	NaO	H: Na					
SAMPLE RECE	IPT	Temp E	Blank:	Yes No	Wet Ice:	Yes	No	meters	6		l		- 1111					HIH					H₃PO₄: HP		I
Samples Received I	Intact: (Yes No		No	Thermometer	ID:	TOM	007	Tag.	300.0)				- 111										NaHSO ₄ : NA		
Cooler Custody Sea	is:	Yes No	NIA	Correction Fa	ctor:	-0	()	g.	(EPA:				- 1111										Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC Sample Comments		
Sample Custody Se	als:	Yes No	NA	Temperature	Reading:	4.			E E				890	-4274	Chair	of C	ustor	11 11 1 11 1	EI !EE!						
Total Containers:				Corrected Te	mperature:	4.	4		DES	15)	1021							· y			-				SAPC
Sample Ide	ntificatio	on	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp		CHLORIDES	TPH (8015)	BTEX (8021														ents
SSC	05		S	3/8/2023	13:50	0.5'	Grab	1	Х	Х	Х														
																		_							
																	_					1	NAPP2230	752440	
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Total 200 7 / 6	010	200 8 / 6	020.	9 D	CDA 13DE	M Toy	nc 11	AL CI	. Ac	Ba B	lo R	C4 C	Cr	C0. C	II FA	Ph	Ma N	An M	o Ni	K Se	Aa S	iO ₂ N	Na Sr Ti Si	n U V Z	n

Circle Method(s) and Metal(s) to be analyzed

Hg: 1631 / 245.1 / 7470 / 7471 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U

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
DN	Mr. O Dell	2			
	Inaslo Stut	310-23 D859			
	,	6			mined Date: 08/25/2020 Rev

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4274-1

SDG Number: Lea County NM

List Source: Eurofins Carlsbad

Login Number: 4274 List Number: 1

Creator: Stutzman, Amanda

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 ampered 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	
s 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 <6 mm (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

List Source: Eurofins Midland

List Creation: 03/13/23 08:24 AM

Login Number: 4274 List Number: 2

Creator: Rodriguez, Leticia

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

Released to Imaging: 7/14/2023 8:07:04 AM

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<6mm (1/4").

Environment Testing

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

Eurofins Midland

Job Notes

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

Authorization

Generated 4/7/2023 6:07:40 PM

Authorized for release by Jessica Kramer, Project Manager <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440 1

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Client: Ensolum Project/Site: Maverick Buckeye 43-01 Laboratory Job ID: 880-26508-1

SDG: 03D2057035

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Definitions/Glossary

Job ID: 880-26508-1 Client: Ensolum Project/Site: Maverick Buckeye 43-01 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**

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" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML MPN Most Probable Number Method Quantitation Limit MQL

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)

Reporting Limit or Requested Limit (Radiochemistry) RL

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.

Matrix: Solid

Client: Ensolum Job ID: 880-26508-1 Project/Site: Maverick Buckeye 43-01 SDG: 03D2057035

Client Sample ID: FS05 Lab Sample ID: 880-26508-1

Date Collected: 03/24/23 10:40 Date Received: 03/28/23 08:32

Sample Depth: 1'

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 - 1	Total BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.101		0.00404	mg/Kg			04/07/23 18:45	
			0.00101	1119/119			0 1/01/20 10:10	
		ics (DRO) (g/i.tg			0 1/01/20 10:10	,
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (G		Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese	el Range Organ	Qualifier	GC)		<u>D</u>	Prepared		Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	Result <50.0	Qualifier U	RL 50.0	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result <	Qualifier U	RL 50.0	Unit	<u>D</u>	Prepared Prepared	Analyzed	1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	el Range Organ Result <	Qualifier Unics (DRO) Qualifier	GC) RL 50.0	Unit mg/Kg			Analyzed 04/03/23 14:09	1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	el Range Organ Result <50.0 sel Range Orga Result	Qualifier Unics (DRO) Qualifier	GC) RL 50.0 (GC) RL	Unit mg/Kg		Prepared	Analyzed 04/03/23 14:09 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Organ Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	GC) RL 50.0 (GC) RL	Unit mg/Kg		Prepared	Analyzed 04/03/23 14:09 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Organ Result <50.0 sel Range Orga Result <50.0 <50.0	Qualifier U nics (DRO) Qualifier U	GC) RL 50.0 (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 03/31/23 09:25 03/31/23 09:25	Analyzed 04/03/23 14:09 Analyzed 04/01/23 03:40 04/01/23 03:40	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Organ Result <50.0 sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U	GC) RL 50.0 (GC) RL 50.0	Unit mg/Kg Unit mg/Kg		Prepared 03/31/23 09:25	Analyzed 04/03/23 14:09 Analyzed 04/01/23 03:40	Dil Fac
Method: SW846 8015 NM - Diese Analyte	el Range Organ Result <50.0 sel Range Orga Result <50.0 <50.0	Qualifier U nics (DRO) Qualifier U U	GC) RL 50.0 (GC) RL 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 03/31/23 09:25 03/31/23 09:25	Analyzed 04/03/23 14:09 Analyzed 04/01/23 03:40 04/01/23 03:40	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Range Organ Result	Qualifier U nics (DRO) Qualifier U U	GC) RL 50.0 (GC) RL 50.0 50.0 50.0	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 03/31/23 09:25 03/31/23 09:25 03/31/23 09:25	Analyzed 04/03/23 14:09 Analyzed 04/01/23 03:40 04/01/23 03:40	1 Dil Fac

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 Date Collected: 03/24/23 10:50 **Matrix: Solid**

Date Received: 03/28/23 08:32

Sample Depth: 1'

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	

Client: Ensolum

Job ID: 880-26508-1 Project/Site: Maverick Buckeye 43-01 SDG: 03D2057035

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

Sample Depth: 1'

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

Surrogate	%Recovery Qual	lifier 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
Mictiliou. IAL OOI	Total BIEX - Total BIEX Galculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0303	0.00399	ma/Ka			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	ma/Ka			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
Surrogato	% Pocovory	Qualifier	l imite			Propared	Analyzod	Dil Esc

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 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'

1		
Method: SW846 8021E	:- Volatilo Organic (Compounde (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
4 4 10:00 4 40 40	40.4		70 100			0.4/0.5/0.0.00	0.1/05/00 15 11	

		<u> </u>			
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

Matrix: Solid

Lab Sample ID: 880-26508-3

Job ID: 880-26508-1

Client: Ensolum Project/Site: Maverick Buckeye 43-01 SDG: 03D2057035

Client Sample ID: FS07

Date Collected: 03/24/23 11:00 Date Received: 03/28/23 08:32

Sample Depth: 1'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		03/31/23 09:25	04/01/23 04:01	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		03/31/23 09:25	04/01/23 04:01	1
C10-C28)								
Oll 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	Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
			5.03	mg/Kg			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

Sample Depth: 1'

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 - T	otal BTEX Cald	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0566		0.00402	mg/Kg			04/05/23 16:40	1
*								
-								
		, , ,	•					
Analyte	Result	Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH		Qualifier	•	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 04/03/23 14:09	Dil Fac
Analyte Total TPH		Qualifier U	RL 49.8		<u>D</u>	Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.8	Qualifier U	RL 49.8		<u>D</u>	Prepared Prepared		
Analyte	Result <49.8	Qualifier Unics (DRO) Qualifier	RL 49.8	mg/Kg		<u> </u>	04/03/23 14:09	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <49.8 sel Range Orga Result	Qualifier Unics (DRO) Qualifier	RL 49.8 (GC)	mg/Kg		Prepared	04/03/23 14:09 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.8 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC)	mg/Kg		Prepared	04/03/23 14:09 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 49.8 sel Range Orga Result <49.8 <49.8	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC) RL 49.8	mg/Kg Unit mg/Kg		Prepared 03/31/23 09:25	04/03/23 14:09 Analyzed 04/01/23 02:57	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result 49.8 sel Range Orga Result <49.8 <49.8	Qualifier U nics (DRO) Qualifier U	RL 49.8 (GC) RL 49.8	mg/Kg Unit mg/Kg		Prepared 03/31/23 09:25	04/03/23 14:09 Analyzed 04/01/23 02:57	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.8 sel Range Orga Result <49.8 <49.8 <49.8 %Recovery	Qualifier U nics (DRO) Qualifier U U	RL 49.8 (GC) RL 49.8 49.8 49.8 49.8 Limits	mg/Kg Unit mg/Kg mg/Kg		Prepared 03/31/23 09:25 03/31/23 09:25 03/31/23 09:25 Prepared	Analyzed 04/01/23 02:57 04/01/23 02:57 04/01/23 02:57 Analyzed	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.8 (GC) RL 49.8 49.8 49.8 49.8	mg/Kg Unit mg/Kg mg/Kg		Prepared 03/31/23 09:25 03/31/23 09:25 03/31/23 09:25	Analyzed 04/01/23 02:57 04/01/23 02:57	Dil Fac

Matrix: Solid

Client Sample Results

Client: Ensolum
Project/Site: Maverick Buckeye 43-01
Job ID: 880-26508-1
SDG: 03D2057035

Client Sample ID: FS08 Lab Sample ID: 880-26508-4

Date Collected: 03/24/23 11:10
Date Received: 03/28/23 08:32

Sample Depth: 1'

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	

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Surrogate Summary

Client: Ensolum Job ID: 880-26508-1
Project/Site: Maverick Buckeye 43-01 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)	
880-26508-1	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				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(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

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QC Sample Results

Client: Ensolum Job ID: 880-26508-1 SDG: 03D2057035 Project/Site: Maverick Buckeye 43-01

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: 50209

Prep Batch: 49835

1

	MB	MB						
Analyte	Result	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	
Toluene	<0.00200	U	0.00200	mg/Kg		03/29/23 12:18	04/04/23 21:45	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/29/23 12:18	04/04/23 21:45	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/29/23 12:18	04/04/23 21:45	
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/29/23 12:18	04/04/23 21:45	
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		03/29/23 12:18	04/04/23 21:45	•

MB MB

Surrogate	%Recovery	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 Client Sample ID: Method Blank Matrix: Solid Prep Type: Total/NA

Analysis Batch: 50285

	MB	MR						
Analyte	Result	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

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130	04/03/23 14:1	8 04/05/23 08:52	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/03/23 14:1	8 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

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery 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: La	b Control Sample Dup
	Dren Times Tetal/NA

Prep Type: Total/NA

Prep Batch: 50209

	Бріке	LCSD LCSD				%Rec		RPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1069	mg/Kg		107	70 - 130	4	35	

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QC Sample Results

Client: Ensolum Job ID: 880-26508-1 Project/Site: Maverick Buckeye 43-01 SDG: 03D2057035

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

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

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Toluene 0.100 0.08523 85 70 - 130 35 mg/Kg 12 Ethylbenzene 0.100 0.07724 mg/Kg 77 70 - 130 18 35 0.200 m-Xylene & p-Xylene 0.1525 mg/Kg 76 70 - 130 22 35 o-Xylene 0.100 0.07833 mg/Kg 78 70 - 130 21 35

LCSD LCSD

Surrogate	%Recovery 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

Analysis Batch: 50458

Prep Type: Total/NA

Prep Batch: 50231

мв мв

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 04/03/23 15:44 04/06/23 10:49 mg/Kg Toluene <0.00200 U 0.00200 04/03/23 15:44 04/06/23 10:49 mg/Kg Ethylbenzene <0.00200 U 0.00200 04/03/23 15:44 04/06/23 10:49 mg/Kg m-Xylene & p-Xylene <0.00400 U 0.00400 04/03/23 15:44 04/06/23 10:49 mg/Kg o-Xylene <0.00200 U 0.00200 mg/Kg 04/03/23 15:44 04/06/23 10:49 <0.00400 U 0.00400 04/03/23 15:44 04/06/23 10:49

MB MB

Surrogate	%Recovery 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

mg/Kg

Lab Sample ID: LCS 880-50231/1-A

Matrix: Solid

Xylenes, Total

Analysis Batch: 50458

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 50231

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery Qualit	ier Limits
4-Bromofluorobenzene (Surr)	106	70 _ 130
1.4-Difluorobenzene (Surr)	108	70 - 130

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

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

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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

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

LCSD LCSD

Surrogate	%Recovery Qu	ualifier	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

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/31/23 09:25	03/31/23 20:55	1
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		03/31/23 09:25	03/31/23 20:55	1
C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/31/23 09:25	03/31/23 20:55	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Pi	repared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	03/3	31/23 09:25	03/31/23 20:55	1
o-Terphenyl	130		70 - 130	03/3	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
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Prep Type: Total/NA

Prep Batch: 50011

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	917.2		mg/Kg		92	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	879.5		mg/Kg		88	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	146	S1+	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 49995

Lab Sample ID: LCSD 880-50011/3-A

Prep Type: Total/NA Prep Batch: 50011

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	867.1		mg/Kg		87	70 - 130	6	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	8.808		mg/Kg		81	70 - 130	8	20
C10-C28)									

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QC Sample Results

Client: Ensolum Job ID: 880-26508-1 Project/Site: Maverick Buckeye 43-01 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

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Batch: 50011

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

LCSD LCSD

Surrogate %Recovery 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

MB MB

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac 5.00 Chloride <5.00 U mg/Kg 04/06/23 15:05

Lab Sample ID: LCS 880-50413/2-A

Matrix: Solid

Analysis Batch: 50526

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 248.3 99 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-50413/3-A

Matrix: Solid

Analysis Batch: 50526

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 249.2 100 90 - 110 20 mg/Kg

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Released to Imaging: 7/14/2023 8:07:04 AM

QC Association Summary

Client: Ensolum

Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1 SDG: 03D2057035

7035

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

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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

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Released to Imaging: 7/14/2023 8:07:04 AM

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Project/Site: Maverick Buckeye 43-01

Job ID: 880-26508-1

SDG: 03D2057035

Client Sample ID: FS05

Client: Ensolum

Lab Sample ID: 880-26508-1

Matrix: Solid

Date Collected: 03/24/23 10:40 Date Received: 03/28/23 08:32

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	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

Matrix: Solid

Date Collected: 03/24/23 10:50 Date Received: 03/28/23 08:32

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	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

Matrix: Solid

Date Collected: 03/24/23 11:00 Date Received: 03/28/23 08:32

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	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

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	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

Eurofins Midland

Lab Chronicle

Client: Ensolum Job ID: 880-26508-1 Project/Site: Maverick Buckeye 43-01 SDG: 03D2057035

Client Sample ID: FS08

Date Received: 03/28/23 08:32

Lab Sample ID: 880-26508-4 Date Collected: 03/24/23 11:10

Matrix: Solid

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	8015 NM			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		ogram	Identification Number	Expiration Date			
Texas	NI	ELAP	T104704400-22-25	06-30-23			
The fellowing analytes			and the state of the contraction				
the agency does not of	. ,	ut the laboratory is not certific	ed by the governing authority. This list ma	ay include analytes for			
0 ,	. ,	ut the laboratory is not certilion Matrix	ed by the governing authority. This list ma	ay include analytes for			
the agency does not of	fer certification.	•	, , ,	ay include analytes for			

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

Eurofins Midland

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Sample Summary

Client: Ensolum

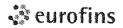
Project/Site: Maverick Buckeye 43-01

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'

Received by OCD: 4/21/2023 12:52:01 PM



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

Work	Order	No:	26509

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Sampler's Name: PO#:		Dr	nıtry	Nikano	orov	TAT starts th										İ								1	HCL. HC			OH WE	
SAMPLE RECE	l Dr [energy Alba	np B	tanak	(4)	The state of the state of the state of			neters]	H ₂ S0 ₄ F	H_2	Na	OH Na	
Samples Received In			-	No_	Yes No Thermometer	Wet Ice.		No	Tame 1	(0 0														- 1	H₃PO₄ I				
Cooler Custody Seal		Yes		_	Correction Fa		TDM	7CF	Pa.	۸. 300					- 1	}								- 1	NaHSO	•			
Sample Custody Sea	ıls.	Yes	No		Temperature		3	2		(EPA.					}	1								- 1	Na ₂ S ₂ O ₃ Zn Aceta		•	1	
Total Containers:					Corrected Te	mperature:	3	10	1	DES	15)	021												- 1	NaOH+/				
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Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 880-26508-1

 SDG Number: 03D2057035

List Source: Eurofins Midland

Login Number: 26508 List Number: 1

Creator: Kramer, Jessica

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	N/A	

<6mm (1/4").

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



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

Generated 4/12/2023 4:21:45 PM Revision 1

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Released to Imaging: 7/14/2023 8:07:04 AM

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Client: Ensolum
Project/Site: Buckeye 43-01
Laboratory Job ID: 890-3933-1
SDG: 03D2057035

Table of Contents

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Definitions/Glossary

Client: Ensolum Job ID: 890-3933-1 Project/Site: Buckeye 43-01

SDG: 03D2057035

Qualifiers

GC VOA

Qualifier **Qualifier Description**

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**

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)

Dilution Factor Dil Fac

Detection Limit (DoD/DOE) DΙ

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.

Eurofins Carlsbad 4/12/2023 (Rev. 1)
 Client: Ensolum
 Job ID: 890-3933-1

 Project/Site: Buckeye 43-01
 SDG: 03D2057035

Client Sample ID: FS01

Date Collected: 01/20/23 09:15 Date Received: 01/23/23 16:24

Sample Depth: 1'

1,4-Difluorobenzene (Surr)

.ab Sample ID): 890-3933- <i>′</i>
---------------	-----------------------

02/02/23 13:52 02/03/23 01:57

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)			70 - 130			02/02/23 13:52	02/03/23 01:57	1		

Method: TAL SOP Total BTEX - Total BTEX Calculation

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 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Total BTEX
 <0.00398</td>
 U
 0.00398
 mg/Kg
 02/03/23 08:57
 1

70 - 130

Method: SW846 8015 NM - Die	esel Range O	rganics (D	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	140		49.9	mg/Kg			02/05/23 09:18	1

Analyte	Result Qu	ıalifier 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
Oll 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 Qual	lifier 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 - SolubleAnalyteResult OthorideQualifier AugustiaRL AugustiaUnit MarkDescriptionPrepared Dil FactoriaAnalyzed Dil Factoria

Client Sample ID: FS02

Date Collected: 01/20/23 09:25

Lab Sample ID: 890-3933-2

Matrix: Solid

Date Received: 01/23/23 16:24

Sample Depth: 1'

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

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Matrix: Solid

Job ID: 890-3933-1

Lab Sample ID: 890-3933-2

Client: Ensolum Project/Site: Buckeye 43-01 SDG: 03D2057035

Client Sample ID: FS02

Date Collected: 01/20/23 09:25 Date Received: 01/23/23 16:24

Sample Depth: 1'

Method: SW846 8021B	- Volatile Org	ianic Compound	ds (GC)	(Continued)
mothod: Cito to coz ib	Tolutile Olg	jaino oompoun	40 (OO)	(Goillinaga)

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

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
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:37	02/04/23 17:22	1
Surragata	9/ Bassyary	Ouglifier	Limita			Droporod	Analyzad	Dil Ess

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 Lab Sample ID: 890-3933-3 Matrix: Solid

Date Collected: 01/20/23 09:35 Date Received: 01/23/23 16:24

Sample Depth: 1'

Mothod: CMQ46 0021D	Volatile Organie	Compounds (CC)

	rolatile el gallie	- opou	uo (0 0)					
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

1	Mothod:	TAI	SUD.	Total	RTEY	- Total	RTEY	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

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

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-3933-3

Client: Ensolum Job ID: 890-3933-1

Project/Site: Buckeye 43-01 SDG: 03D2057035

Client Sample ID: FS03 Date Collected: 01/20/23 09:35 Date Received: 01/23/23 16:24

Sample Depth: 1'

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
Oll 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

Analyte Result Qualifier RL Unit Analyzed Dil Fac Prepared Chloride 5.00 01/30/23 00:10 18.6 mg/Kg **Client Sample ID: FS04** Lab Sample ID: 890-3933-4

Date Collected: 01/20/23 09:45

Date Received: 01/23/23 16:24

Sample Depth: 1'

Method: SW846 8021B - Volat	tile Organic	Compoun	ds (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
Total BTEX Method: SW846 8015 NM - Dic Analyte	_		0.00401 DRO) (GC) RL	mg/Kg Unit		Prepared	02/03/23 08:57 Analyzed	1 Dil Fac
Total TPH	127		49.9	mg/Kg		<u>-</u>	02/05/23 09:18	1
Method: SW846 8015B NM - D Analyte		Organics Qualifier	(DRO) (GC)	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
Oll 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

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02/02/23 13:37 02/04/23 18:05

70 - 130

95

o-Terphenyl

Client Sample Results

 Client: Ensolum
 Job ID: 890-3933-1

 Project/Site: Buckeye 43-01
 SDG: 03D2057035

Client Sample ID: FS04 Lab Sample ID: 890-3933-4

Date Collected: 01/20/23 09:45

Date Received: 01/23/23 16:24 Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - SolubleAnalyteResultQualifierRLUnitDPreparedAnalyzedDil FacChloride13.94.96mg/Kg01/30/23 00:171

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Surrogate Summary

 Client: Ensolum
 Job ID: 890-3933-1

 Project/Site: Buckeye 43-01
 SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Perce	ent 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-					
390-3933-1	FS01	87	96					
390-3933-2	FS02	104	111					
390-3933-3	FS03	102	112					
390-3933-4	FS04	87	95					
CS 880-45267/2-A	Lab Control Sample	87	91					
CSD 880-45267/3-A	Lab Control Sample Dup	85	90					
MB 880-45267/1-A	Method Blank	112	123					

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-3933-1 Project/Site: Buckeye 43-01 SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

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

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

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45239

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

MB MB

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

Client Sample ID: Method Blank

Matrix: Solid **Prep Type: Total/NA Analysis Batch: 45230** Prep Batch: 45269 MR MR

	IVID	IVID						
Analyte	Result	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

MB MB

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

Client Sample ID: Lab Control Sample Dup

Prep Batch: 45269

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery 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							Prep Ty	pe: Tot	:al/NA
Analysis Batch: 45230					Prep Batch: 45269				
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09768		mg/Kg		98	70 - 130	1	35

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QC Sample Results

Client: Ensolum Job ID: 890-3933-1 Project/Site: Buckeye 43-01 SDG: 03D2057035

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

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

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 45269

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

LCSD LCSD

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

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

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 45269

Sample Sample Spike MS MS %Rec Result Qualifier Analyte Added Result Qualifier Limits Unit D %Rec Benzene <0.00201 U 0.100 0.1089 109 70 - 130 mg/Kg 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

MS MS

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

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

Matrix: Solid

Analysis Batch: 45230

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 45269

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-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

Surrogate	%Recovery	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

Matrix: Solid

Analysis Batch: 45445

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

Prep Batch: 45267

MB MB Result Qualifier RL Unit Analyte Prepared Analyzed Gasoline Range Organics <49.9 U 49.9 mg/Kg 02/02/23 13:37 02/04/23 08:56 (GRO)-C6-C10

Client: Ensolum Job ID: 890-3933-1 Project/Site: Buckeye 43-01 SDG: 03D2057035

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

Lab Sample ID: MB 880-45267/1-A **Client Sample ID: Method Blank** Matrix: Solid **Prep Type: Total/NA** Prep Batch: 45267 **Analysis Batch: 45445**

ı	•							•	
		MB	MB						
	Analyte	Result	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
	Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/02/23 13:37	02/04/23 08:56	1
		MB	MB						
	Surrogate	%Recovery	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- Matrix: Solid Analysis Batch: 45445	45267/2-A		0			Clier	nt Sai	mple ID	: Lab Control Sample Prep Type: Total/NA Prep Batch: 45267
			Spike	_	LCS		_	0/ 5	%Rec
Analyte			Added	Result	Qualifier	Unit	_ D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10			999	888.9		mg/Kg		89	70 - 130
Diesel Range Organics (Over			999	860.4		mg/Kg		86	70 - 130
C10-C28)									
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	87		70 - 130						
o-Terphenyl	91		70 - 130						

Lab Sample ID: LCSD 880-45267/3-A	•				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid							Prep Ty	pe: Tot	al/NA		
Analysis Batch: 45445							Prep Batch:				
-	Spike	LCSD	LCSD				%Rec		RPD		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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		
1000 1000											

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

Lab Sample ID: 890-3922 Matrix: Solid Analysis Batch: 45445							CI	lient Sa	Prep Ba	atrix Spike e: Total/NA atch: 45267
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1001		mg/Kg		100	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1023		mg/Kg		98	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	17	S1-	70 - 130							
o-Terphenyl	10	S1-	70 - 130							

Client: Ensolum Job ID: 890-3933-1 SDG: 03D2057035 Project/Site: Buckeye 43-01

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 Prep Batch: 45267

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

Analysis Batch: 45445 Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Result Qualifier Added %Rec Limits RPD Limit Analyte Unit D Gasoline Range Organics <50.0 U 998 849.9 mg/Kg 85 70 - 130 16 20 (GRO)-C6-C10 998 922.7 88 Diesel Range Organics (Over <50.0 U mg/Kg 70 - 13010 20

Limits

C10-C28)

o-Terphenyl

MSD MSD Surrogate %Recovery Qualifier 1-Chlorooctane 14 S1-

70 - 130 70 - 130 9 S1-

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44793/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 45036

MB MB

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

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

Matrix: Solid

Analysis Batch: 45036

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

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

Matrix: Solid

Analysis Batch: 45036

LCSD LCSD RPD Spike %Rec **Analyte** Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 250 255.0 102 90 - 110 mg/Kg

Lab Sample ID: 890-3930-A-1-B MS

Matrix: Solid

Analysis Batch: 45036

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 90 - 110 Chloride 21 1 249 264.5 mg/Kg

Lab Sample ID: 890-3930-A-1-C MSD

Matrix: Solid

Analysis Batch: 45036

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

QC Association Summary

 Client: Ensolum
 Job ID: 890-3933-1

 Project/Site: Buckeye 43-01
 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 890-3933-1	Client Sample ID FS01	Prep Type Total/NA	Matrix Solid	Method Total BTEX	Prep Batch
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

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QC Association Summary

Client: Ensolum Job ID: 890-3933-1 Project/Site: Buckeye 43-01 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 890-3933-1	Client Sample ID FS01	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
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

SDG: 03D2057035

Client Sample ID: FS01

Project/Site: Buckeye 43-01

Client: Ensolum

Lab Sample ID: 890-3933-1

Matrix: Solid

Date Collected: 01/20/23 09:15 Date Received: 01/23/23 16:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-3933-2 Date Collected: 01/20/23 09:25 **Matrix: Solid**

Date Received: 01/23/23 16:24

Batch Batch Dil Initial Final Batch Prepared Method Number **Prep Type** Type Run **Factor Amount** Amount or Analyzed **Analyst** Lab Total/NA 5035 45269 02/02/23 13:52 MNR EET MID Prep 5.01 g 5 mL 8021B Total/NA 5 mL 45230 02/03/23 03:20 MNR **EET MID** Analysis 5 mL 1 Total/NA Total BTEX Analysis 45316 02/03/23 08:57 AJ **EET MID** 1 Total/NA 8015 NM 45492 **EET MID** Analysis 1 02/05/23 09:18 AJ Total/NA Prep 8015NM Prep 10.03 g 10 mL 45267 02/02/23 13:37 DM **EET MID** Total/NA 8015B NM 45445 **EET MID** Analysis 1 uL 1 uL 02/04/23 17:22 AJ Soluble 5.03 g 50 mL 44793 Leach DI Leach 01/26/23 08:33 CH **EET MID** Soluble 300.0 45036 01/30/23 00:04 CH Analysis 1 **EET MID**

Client Sample ID: FS03 Lab Sample ID: 890-3933-3 Date Collected: 01/20/23 09:35 Matrix: Solid

Date Received: 01/23/23 16:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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 Lab Sample ID: 890-3933-4 Date Collected: 01/20/23 09:45 Matrix: Solid

Date Received: 01/23/23 16:24

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

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Lab Chronicle

 Client: Ensolum
 Job ID: 890-3933-1

 Project/Site: Buckeye 43-01
 SDG: 03D2057035

Client Sample ID: FS04 Lab Sample ID: 890-3933-4

Date Collected: 01/20/23 09:45

Date Received: 01/23/23 16:24

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	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:

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

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Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-3933-1

 Project/Site: Buckeye 43-01
 SDG: 03D2057035

Laboratory: Eurofins Midland

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

Authority	Pr	rogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-22-25	06-30-23
The fellowing an about	: : :			This P. C. C. C
	•	ort, but the laboratory is r	not certified by the governing authority.	inis list may include analytes for
the agency does not o	offer certification.	•	, , ,	This list may include analytes for
the agency does not on Analysis Method	•	Matrix	Analyte	I his list may include analytes for t
the agency does not o	offer certification.	•	, , ,	I his list may include analytes for the

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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'

Received by OCD: 4/21/2023 12:52:01 PM

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

Project Manager:	Josh Ad	ams				Bill to: (if	different)	Kalei Jennings						Work Order Comments										
Company Name:	Ensolum	n, LLC				Compan	y Name	:	Ensol	um, Ll	.c						Prog	ram:	JST/P	ST 🗌 F	PRP[]	Brow	nfields 🗌 RR	C Superfund	
Address:	601 N M	larienfe	ld St St	uite 400		Address:	:		601 N	Marie	nfeld S	t Suite 4	100					of P	•						
City, State ZIP:	Midland.	, TX 79	701			City, Sta	te ZIP:		Midla	nd, TX	79701						Reporting: Level II Level III PST/I Deliverables: EDD ADaPT								
Phone:	303-517	-8437			Email:	kjenning	gs@en	solum	.com,	jadar	ns@e	nsolum.	com									ADaPT Other:			
Project Name:		Bucke	eye 43-	01	Tuer	Around								ANAL	YSIS	REC	UES	г					Preser	vative Codes	
Project Number:			205703		☑ Routine	Rush		Pres. Code					Ť					T					None: NO	DI Water: H₂O	
Project Location:			Lea		Due Date:			Code								_							Cool: Cool	МеОН: Ме	
Sampler's Name:	-		Van Pai		TAT starts the	e day rece	ived by						(2010)	O raina in		100		1	1	1			HCL: HC	HNO ₃ : HN	
PO#:		1 0101			the lab, if red			2										1111111					H ₂ S0 ₄ : H ₂	NaOH: Na	
SAMPLE RECEI	PT	Temp B	lank:	(Yes No	Wet Ice:	Yes	No	Parameters	6			i ii											H₃PO₄: HP		
Samples Received In	ntact:	Yes	No	Thermometer	ID:	Thu	IO	ran	300.0)			11											NaHSO₄: NA		
Cooler Custody Seal	s: Y	es No	MATA	Correction Fa	ctor:		.2	Pa	(EPA:			- 89	90-39	33 Ch	ain of	Cust	ody						Na ₂ S ₂ O ₃ : Na	-	
Sample Custody Sea	als: Y	es No	N/A	Temperature	Reading:	2.	2		S (E		=		- 1	1	1			1		1			Zn Acetate+N		
Total Containers:				Corrected Ter	nperature:	2.	0		SE SE	(8015)	802												NaOH+Ascor	bic Acid: SAPC	
Sample Ider	ntification	ı	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp		CHLORIDES	TPH (8	BTEX (8021)												Sampl	e Comments	
FS0)1		Soil	1/20/2023	915	0.5'	Comp	1	х	х	х						_		_						
FS0	2		Soil	1/20/2023	925	0.5'	Comp	1	х	х	x									<u> </u>	-				
FS0	3		Soil	1/20/2023	935	0.5'	Comp	1	х	x	×						-		_						
FS0)4		Soil	1/20/2023	945	0.5'	Comp	1	X	X	X						-	-	-	-					
				Fele	to F	V																			
																		F							
Total 200.7 / 60	010 20	00.8 / 60	020:	18	RCRA 13F	PM Te	xas 11	AI S	Sb As	Ba I	Зе В	Cd Ca	Cr (Co Ci	u Fe	Pb	Mg N	In Mo	Ni k	Se /	Ag SiC	D ₂ Na	Sr Tl Sn l	U V Zn	

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
12 Va 764	Amonda Steet	1-23-23 1624			
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5		6			Perisad Date 08/25/2020 Rev 20

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3933-1 SDG Number: 03D2057035

Login Number: 3933 **List Source: Eurofins Carlsbad**

List Number: 1

Creator: Stutzman, Amanda

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	

Released to Imaging: 7/14/2023 8:07:04 AM

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-3933-1 SDG Number: 03D2057035

Login Number: 3933 **List Source: Eurofins Midland** List Creation: 01/25/23 12:13 PM List Number: 2

Creator: Rodriguez, Leticia

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

<6mm (1/4").

Environment Testing

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



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

Generated 4/12/2023 4:22:58 PM Revision 1

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies Page 2 of 24

Client: Ensolum
Project/Site: Buckeye 43-01
Laboratory Job ID: 890-4036-1
SDG: 03D2057035

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Definitions/Glossary

Client: Ensolum Job ID: 890-4036-1 Project/Site: Buckeye 43-01

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 Contains Free Liquid **CFL** 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)

MDI Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit**

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Carlsbad

Case Narrative

Client: Ensolum

Project/Site: 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

Job ID: 890-4036-1 Project/Site: Buckeye 43-01 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.

Matrix: Solid

Lab Sample ID: 890-4036-1

Client Sample Results

 Client: Ensolum
 Job ID: 890-4036-1

 Project/Site: Buckeye 43-01
 SDG: 03D2057035

Client Sample ID: FS01

Date Collected: 02/06/23 09:45 Date Received: 02/06/23 14:12

Sample Depth: 1.5'

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

	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
ı	_								

1	Wiethod: Syv846 8015 NW - Die	sei Range (organics (DRU) (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 - D	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
Oll 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

Method: EPA 300.0 - Anions, Ion Cl	•	oluble						
Method: EPA 300.0 - Anions, Ion Cl	nromatography - S Result Qualifier	oluble	Unit		Prepared	Analyzed	Dil Fac	
o-Terphenyl	63 S1-	70 - 130		C	02/09/23 13:32	02/10/23 18:00	1	

 Chloride
 178
 5.00
 mg/Kg
 02/10/23 04:49
 1

 Client Sample ID: FS02
 Lab Sample ID: 890-4036-2

Date Collected: 02/06/23 09:50 Date Received: 02/06/23 14:12

Sample Depth: 1.5'

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

Eurofins Carlsbad

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Matrix: Solid

Job ID: 890-4036-1

Client: Ensolum Project/Site: Buckeye 43-01 SDG: 03D2057035

Client Sample ID: FS02 Lab Sample ID: 890-4036-2

Date Collected: 02/06/23 09:50 **Matrix: Solid** Date Received: 02/06/23 14:12

Sample Depth: 1.5'

Surrogate	%Recovery 0	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/K			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

			(/					
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
Oll 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	l imite			Propared	Analyzed	Dil Fac

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 Lab Sample ID: 890-4036-3 **Matrix: Solid**

Date Collected: 02/06/23 09:55 Date Received: 02/06/23 14:12

Sample Depth: 1.5'

mothod: Offo-to coz 15	Tolumo Organio	Compoun	40 (00)					
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: TΔI	SOP Total BTFX	- Total RTFX	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 Quali	ifier 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
 Job ID: 890-4036-1

 Project/Site: Buckeye 43-01
 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

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
Oll 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			

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Surrogate Summary

Client: Ensolum Job ID: 890-4036-1 Project/Site: Buckeye 43-01 SDG: 03D2057035

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	rrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(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	

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

			Perce	nt Surrogate Recovery (A
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(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	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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Client: Ensolum Job ID: 890-4036-1 Project/Site: Buckeye 43-01 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

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	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

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130
1.4-Difluorobenzene (Surr)	80		70 - 130

Lab Sample ID: MB 880-46010/5-A **Client Sample ID: Method Blank**

Matrix: Solid

Analysis Batch: 46086

Prep Type: Total/NA

Prep Batch: 46010

MB MB

23 14:32	02/13/23 12:26	
	02/10/20 12.20	
23 14:32	2 02/13/23 12:26	1
23 14:32	2 02/13/23 12:26	1
23 14:32	2 02/13/23 12:26	1
23 14:32	2 02/13/23 12:26	1
23 14:32	2 02/13/23 12:26	1
/:	/23 14:32 /23 14:32 /23 14:32	/23 14:32 02/13/23 12:26 /23 14:32 02/13/23 12:26

MB MB

Surrogate	%Recovery	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

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

LCS LCS

Surrogate	%Recovery 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

Analyte

Benzene

Toluene

Analysis Batch: 46086

		lient Sam	ple	ID: Lab	Control 9	Sample	Dup
					Prep Typ	e: Tot	al/NA
					Prep B	atch: 4	16010
LCSD	LCSD				%Rec		RPD
Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.1219		mg/Kg	_	122	70 - 130	10	35

123

70 - 130

10 **Eurofins Carlsbad**

35

0.1231

mg/Kg

Spike

Added

0.100

0.100

QC Sample Results

Client: Ensolum Job ID: 890-4036-1 Project/Site: Buckeye 43-01 SDG: 03D2057035

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

Lab Sample ID: LCSD 880-46010/2-A

Lab Sample ID: 890-4031-A-21-H MSD

Matrix: Solid

Analysis Batch: 46086

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 46010

LCSD LCSD %Rec **RPD** Spike Added Result Qualifier Unit %Rec Limits 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 70 - 130 mg/Kg 129 9

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 46086

Prep Type: Total/NA

Prep Batch: 46010

Sample Sample Spike MSD MSD %Rec **RPD** Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit 0.0996 Benzene <0.00202 U *+ 0.1080 mg/Kg 108 70 - 130 2 35 Toluene <0.00202 U*+ 0.0996 0.1113 70 - 130 35 mg/Kg 112 0.0996 Ethylbenzene <0.00202 U *+ 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 <0.00202 U *+ 0.0996 o-Xylene 0.1137 mg/Kg 114 70 - 130

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	144	S1+	70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: MB 880-46012/5-A

Matrix: Solid

Analysis Batch: 46086

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 46012

_	MB	MB						
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 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

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared An	alyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	02/10/23 14:36 02/14	1/23 01:37	1
1,4-Difluorobenzene (Surr)	82		70 - 130	02/10/23 14:36 02/14	1/23 01:37	1

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

•	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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	

Eurofins Carlsbad

QC Sample Results

Client: Ensolum Job ID: 890-4036-1 SDG: 03D2057035 Project/Site: Buckeye 43-01

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

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

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits o-Xylene 0 100 0.1169 mg/Kg 117 70 - 130

LCS LCS Surrogate %Recovery 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 Spike LCSD LCSD

%Rec **RPD** RPD Added Result Qualifier Limits Limit **Analyte** Unit D %Rec 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 mg/Kg 35 0.1117 112 70 - 130 0 m-Xylene & p-Xylene 0.200 0.2226 35 mg/Kg 111 70 - 130 o-Xylene 0.100 0.1105 mg/Kg 111 70 - 130 35

LCSD LCSD Surrogate %Recovery 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									Prep Bato	h: 46012
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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	

MS MS Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 116 1,4-Difluorobenzene (Surr) 81 70 - 130

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

Lab Sample ID: MB 880-45900/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 45949

•	MB	MB					•	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/09/23 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
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/09/23 13:32	02/10/23 08:07	1

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Prep Batch: 45900

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 46012

Client: Ensolum Job ID: 890-4036-1 Project/Site: Buckeye 43-01 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

MB MB

Surrogate	%Recovery	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 **Client Sample ID: Lab Control Sample**

Analysis Batch: 45949

Matrix: Solid Prep Type: Total/NA

Prep Batch: 45900

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1020 mg/Kg 102 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 1138 mg/Kg 114 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	132	S1+	70 - 130
o-Terphenyl	138	S1+	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 45949

Lab Sample ID: LCSD 880-45900/3-A

Prep Type: Total/NA

Prep Batch: 45900

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	988.6		mg/Kg		99	70 - 130	3	20
Diesel Range Organics (Over	1000	1056		mg/Kg		106	70 - 130	7	20

C10-C28)

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	106	70 - 130
o-Terphenyl	130	70 - 130

Lab Sample ID: 880-24301-A-1-I MS **Client Sample ID: Matrix Spike**

Matrix: Solid

Analysis Batch: 45949

Prep Type: Total/NA

Prep Batch: 45900

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1139		mg/Kg		110	70 - 130	
Diesel Range Organics (Over	<50.0	U	998	1193		mg/Kg		116	70 - 130	

C10-C28)

MS MS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	68	S1-	70 - 130
o-Terphenyl	72		70 - 130

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Client: Ensolum Job ID: 890-4036-1 Project/Site: Buckeye 43-01 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

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1192		mg/Kg		116	70 - 130	5	20	
Diesel Range Organics (Over	<50.0	U	997	1218		mg/Kg		119	70 - 130	2	20	

C10-C28)

MSD MSD

Surrogate	%Recovery	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 Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 45909

MB MB

Analyte	Result 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 Prep Type: Soluble Matrix: Solid**

Analysis Batch: 45909

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%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

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	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 Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 45909

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride			253	372 5		ma/Ka		102	90 - 110	

Lab Sample ID: 880-24477-A-1-C MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 45909

•	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	116		253	373.2		mg/Kg		102	90 - 110	0	20

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QC Association Summary

Client: Ensolum

Project/Site: 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	

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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 Samp	le 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

	b Sample ID 0-4036-1	Client Sample ID FS01	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
890	0-4036-2	FS02	Total/NA	Solid	8015 NM	
890	0-4036-3	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

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Client Sample ID: FS01

Project/Site: Buckeye 43-01

Client: Ensolum

Lab Sample ID: 890-4036-1

Matrix: Solid

Date Collected: 02/06/23 09:45 Date Received: 02/06/23 14:12

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Lab Sample ID: 890-4036-2

Matrix: Solid

Matrix: Solid

Date Collected: 02/06/23 09:50 Date Received: 02/06/23 14:12

Client Sample ID: FS02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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 MIC
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

Lab Sample ID: 890-4036-3 **Client Sample ID: FS04**

Date Collected: 02/06/23 09:55 Date Received: 02/06/23 14:12

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	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

Eurofins Carlsbad

Accreditation/Certification Summary

 Client: Ensolum
 Job ID: 890-4036-1

 Project/Site: Buckeye 43-01
 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	NE	ELAP	T104704400-22-25	06-30-23	
The following analyte the agency does not	•	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which	
5 ,	onor corumoation.				
Analysis Method	Prep Method	Matrix	Analyte		
0 ,		Matrix Solid	Analyte Total TPH		

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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

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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	De
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'

Received by OCD: 4/21/2023 12:52:01|PM

Environment Testing

Chain of Custody

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

Work Order No:	

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Project Manager:	Josh	Adams				Bill to: (if	Kalei Jennings					Work Order Comments											
Company Name:	Enso	lum, LLC				Compar	y Name	:	Ensolum, LLC					Program: UST/PST PRP Brownfields RRC Superfund									
Address:	601 N	N Marienfe	eld St St	uite 400		Address	:		601 N Marienfeld St Suite 400				State of Project:										
City, State ZIP:	Midla	nd, TX 79	79701 City, State ZII				te ZIP:		Midla	nd, TX	7970	1				Rep	orting:	_evel II	Le	vel III [PS	T/UST 🗌 TR	RP Level IV
Phone:	30	3-5	517	- 3437	Email:	kjennin	gs@en	solun	1.com	, jada	ms@e	ensolun	n.com			Deli	verable	s: EDE			ADaP	T 🗆 Oth	er:
Project Name:	Buckeye 43-01 Turn Around ANALYSIS RE					EQUES	T					Preser	vative Codes										
Project Number:		030	205703	35	✓ Routine	Rus	h	Pres. Code														None: NO	DI Water: H ₂ O
Project Location:		Lea C	County, I	NM	Due Date:																	Cool: Cool	МеОН: Ме
Sampler's Name: PO#:		Dmitry	/ Nikano	prov	TAT starts the			Po												HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na			
SAMPLE RECE	IPT	Temp E	Blank:	(Yes) No	Wet Ice:	Yes) No	eters								41181111						H₃PO₄: HP	
Samples Received In Cooler Custody Seal		Yes No	No MA	Thermometer Correction Fa		Try	£07	Paran	A: 300.0)													NaHSO₄: NA Na₂S₂O₃: Na	
Sample Custody Sea	als:	Yes No	NA	Temperature	Reading:	5	, a		(EPA:			890-4	111111111 1036 C	hain o	f Cust	dy					Zn Acetate+NaOH: Zn		
Total Containers:				Corrected Te	mperature:	_5	0.5		ORIDES	15)	1202				1	_				NaOH+Ascorbic Acid: SAPC			
Sample Ider	ntificati	ion	Matrix	Date Sampled	Time Sampled	Depth	1	# of Cont	1 -	TPH (8015)	BTEX (8021									Sample Comments		e Comments	
FSC)1		S	2/6/2023	9:45	1'	Comp	1	х	х	х												
FS0)2		s	2/6/2023	9:50	1'	Comp	1_	х	×	x												
FS0)4		S	2/6/2023	9:55	1'	Comp	1	х	x	х		_	-			-					Incid	ent Number
			<u> </u>		1				<u> </u>								-						
					TV								+				+						
- 4																							
<u> </u>			<u> </u>						L								Т						

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U Hg: 1631 / 245.1 / 7470 / 7471

Circle Method(s) and Metal(s) to be analyzed

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 MAN	Avaidabited	2-10-23 14	2		
3	7		4		
5			6		

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-4036-1 SDG Number: 03D2057035

Login Number: 4036 **List Source: Eurofins Carlsbad**

List Number: 1

Creator: Stutzman, Amanda

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	

Released to Imaging: 7/14/2023 8:07:04 AM

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-4036-1 SDG Number: 03D2057035

Login Number: 4036 **List Source: Eurofins Midland** List Creation: 02/08/23 02:46 PM List Number: 2

Creator: Rodriguez, Leticia

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s 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	N/A	

<6mm (1/4").



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: <u>image005.ipg</u>

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,



Attachments:

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

image005.jpg image006.png image007.png image008.png

image009.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: <u>Kalei Jennings</u>; <u>Enviro, OCD, EMNRD</u>

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: <u>image005.jpg</u>

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: <u>Enviro, OCD, EMNRD</u>

To: <u>Josh Adams</u>

 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: <u>image005.jpg</u>

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

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

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,





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: May	verick Permian, LL	С	OGRID: 331199								
Contact Name: Bryce V	Vagoner			Contact Te	elephone: 928-241-1862						
Contact email: Bryce.V	Vagoner@mavreso	arces.com		Incident #	(assigned by OCD)						
Contact mailing address 1410 NW County Road)									
		Location	n of R	elease So	ource						
Latitude 32.789981	atitude 32.789981 Longitude -103.464201 (NAD 83 in decimal degrees to 5 decimal places)										
Site Name: Vacuum Glo	orieta East Unit #00	1 (Buckeye EVC	G 43-01)	Site Type							
Date Release Discovere	d October 25, 2022	,		API# (if app	plicable) 30-025-20786						
Unit Letter Section	Township	Range	Coun	nty							
K 33	17S	35E	Lea								
Mater	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 Release	ed (bbls) 7.1 0bb	ols	Volume Recovered (bbls) 5.0							
Produced Water	Volume Release	ed (bbls)			Volume Recovered (bbls)						
	Is the concentra produced water	tion of dissolved >10,000 mg/l?	chloride	in the	☐ Yes ☐ No						
Condensate	Volume Release	ed (bbls)			Volume Recovered (bbls)						
Natural Gas	Volume Release	ed (Mcf)			Volume Recovered (Mcf)						
Other (describe)	Volume/Weigh	t Released (provi	de units)		Volume/Weight Recovered (provide units)						
	recover free stand	ing fluids and ren			The release occurred off pad. A vacuum truck was from the release area. The source of the release has						

Received by OCD: 4/21/2023 12:52:01PPM State of New Mexico Page 2 Oil Conservation Division

P	ag	e	2	d	ģ	ea	f	2	2	â	

Incident ID	NAPP2230752440
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?										
☐ Yes ⊠ No											
If YES, was immediate no	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 rele	ease has been stopped.										
☐ The impacted area has been secured to protect human health and the environment.											
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.											
All free liquids and recoverable materials have been removed and managed appropriately.											
If all the actions described above have <u>not</u> been undertaken, explain why:											
has begun, please attach	AC the responsible party may commence remediation immediately after discovery of a release. If remediation a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred at 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	e Wagoner Title:Permian HSE Specialist II										
Signature:	Date:11/2/2022										
email:Bryce.Wago	ner@mavresources.com Telephone:928-241-1862										
OCD Only											
Received by:Jocely	n Harimon Date:11/03/2022_										

	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 Vol	ume (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 (ft²)	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 Vol	ume (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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 156176

CONDITIONS

Operator:	OGRID:
Maverick Permian LLC	331199
1111 Bagby Street Suite 1600	Action Number:
Houston, TX 77002	156176
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimo	n None	11/3/2022

	Page 222 of 2.	25
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 well Field data	ls.		
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.

Received by OCD: 4/21/2023 12:52:01 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

	Page 223 of 2	25
Incident ID	NAPP2230752440	
District RP		
Facility ID		
Application ID		

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.			
Printed Name: Bryce Wagoner	Title: Permian HSE Specialist II		
Signature: Bywyrth	Date:04/13/2023		
email: Bryce.Wagoner@mavresources.com	Telephone: 928-241-1862		
OCD Only			
Received by: Jocelyn Harimon	Date:04/21/2023		

ew Mexico

Incident ID	NAPP2230752440
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.			
A scaled site and sampl	ing diagram as described in 19.15.29	.11 NMAC	
Photographs of the rem must be notified 2 days price		os of the liner integ	rity if applicable (Note: appropriate OCD District office
☐ Laboratory analyses of	final sampling (Note: appropriate Of	OC District office n	nust be notified 2 days prior to final sampling)
Description of remediat	ion activities		
and regulations all operators may endanger public health of should their operations have thuman health or the environm compliance with any other ferestore, reclaim, and re-veget accordance with 19.15.29.13	are required to report and/or file certa or the environment. The acceptance of failed to adequately investigate and re- nent. In addition, OCD acceptance of deral, state, or local laws and/or regu- tate the impacted surface area to the of NMAC including notification to the	ain release notificate of a C-141 report by the emediate contaminate of a C-141 report doubt detail at the conditions. The responsibility of the conditions that exist OCD when reclamed the conditions are conditions that exist of the conditions that	ny knowledge and understand that pursuant to OCD rules tions and perform corrective actions for releases which by the OCD does not relieve the operator of liability ation that pose a threat to groundwater, surface water, we not relieve the operator of responsibility for insible party acknowledges they must substantially ted prior to the release or their final land use in ation and re-vegetation are complete.
	Printed Name: Bryce Wagoner Title: Permian HSE Specialist II		
Signature: Tyw	gr of the	Date:04/13/2	2023
_{email:} Bryce.Wagoner@	mavresources.com	Telephone: 928	3-241-1862
OCD Only			
Received by:Jocelyn l	Harimon	Date:	04/21/2023
remediate contamination that		e water, human hea	d their operations have failed to adequately investigate and lth, or the environment nor does not relieve the responsible
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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1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 209752

CONDITIONS

Operator:	OGRID:
Maverick Permian LLC	331199
1111 Bagby Street Suite 1600	Action Number:
Houston, TX 77002	209752
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	7/14/2023