



February 27, 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: Remediation Work Plan Addendum
East Vacuum Grayburg – San Andreas Unit (EVGSAU) Satellite 5
Incident Number NAPP2213957732
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Natural Resources, LLC (Maverick), has prepared the following *Remediation Work Plan Addendum* (RWPA) related to the East Vacuum Grayburg – San Andreas Unit (EVGSAU) Satellite 5 (Site). This RWPA documents delineation soil sampling activities completed to date as proposed in the approved *Remediation Work Plan (Work Plan)*, dated November 29, 2022 and proposes additional delineation of the release and subsequent excavation activities at the Site. These actions are in response to a flow line release of crude oil and produced water onto the pad. The following RWPA describes delineation activities that have occurred and proposes further delineation and excavation activities to address impacts associated with Incident Number NAPP2213957732.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit F, Section 26, Township 17 South, Range 35 East, in Lea County, New Mexico (32.806667°, -103.431389°) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On 5 May 2022, a transfer pump leak resulted in the release of approximately 17.4 barrels (bbls) of produced water and 0.9 bbls of crude oil onto the pad within a congested area of active surface and subsurface production equipment. A vacuum truck was promptly dispatched to the Site to recover free-standing fluids; approximately 2 bbls of produced water were recovered. The previous operator, ConocoPhillips Company, reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on May 19, 2022. The release was assigned Incident Number NAPP2213957732.

As a result, Maverick submitted a *Work Plan* proposing delineation activities to further evaluate the migration of soil impacts associated with Incident Number NAPP2213957732. The *Work Plan* was approved by NMOCD on November 29, 2022, via email with no conditions of approval. Initial Site assessment sampling activities, laboratory analytical results and sample locations for soil samples can be referenced in the *Work Plan*. Continuing below in this RWPA is a description of work completed following the approval of the original *Work Plan* and proposed additional remedial actions.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As documented in the original *Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply (Figure 1):

- 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

DELINEATION AND SOIL SAMPLING ACTIVITIES

On January 9, 2023, Ensolum personnel advanced delineation borings and potholes to assess the presence and/or absence of impacts within and around the observed release extent. Two boreholes (BH01 and BH02) were advanced via hand auger until refusal at approximately 2 feet below ground surface (bgs); borehole BH01 was advanced within the release extent and borehole BH02 was advanced south of the release extent. Additionally, three potholes (PH01 through PH03) were advanced within the release extent via backhoe until equipment refusal at approximately 4 feet bgs. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix A. The delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

Two soil samples from each borehole and/or pothole sampling location were collected at depths ranging from 1-foot to 4 feet bgs. The delineation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following constituents of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-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

SOIL SAMPLES COLLECTED OUTSIDE THE MAPPED RELEASE EXTENT

Laboratory analytical results for delineation soil samples collected from borehole BH02 indicated the concentrations of all COCs were compliant with the Site Closure Criteria.

SOIL SAMPLES COLLECTED WITHIN THE MAPPED RELEASE EXTENT

Laboratory analytical results for the shallowest depths from each delineation soil sample location, ranging from approximately 1-foot to 3 feet bgs, indicated chloride concentrations exceeded the Site Closure Criteria. Laboratory analytical results for the terminus depths from each delineation soil sample location, ranging from approximately 2 feet to 4 feet bgs, indicated chloride concentrations exceeded the Site Closure Criteria except from sampling location PH02. A summary of soil analytical results are presented in Table 1 and the full laboratory analytical report is included in Appendix C.

Based laboratory analytical results for the delineation soil samples, additional delineation activities are warranted to further define the extent of impacts throughout the majority of the release.

REMEDATION WORK PLAN ADDENDUM

Results from the delineation soil sampling indicate soil containing elevated chloride concentrations is present across portions of the 4,027 square foot release area to depths of at least 4 feet bgs. As such, Maverick requests approval to complete the following remediation activities:

- Continued vertical delineation of impacted soil until analytical results indicate COCs are compliant with the Site Closure Criteria at sampling locations BH01, PH01 and PH03. Soil samples will be field screened for VOCs and chloride. Soils samples exhibiting the highest field screening concentration and deepest depth from each sample location will be submitted for laboratory analysis of BTEX, TPH, and chloride.
- Proposed delineation locations depicted on Figure 3 will be advanced until Site Closure Criteria is achieved, supplementing the current delineation of impacted soil. The proposed locations are representative locations and may adjust due to active subsurface utilities or above-ground pipelines/equipment that may interfere with advancement. Soil samples will be field screened for VOCs and chloride. Soil samples exhibiting the highest field screening concentration and deepest depth from each sample location will be submitted for laboratory analysis of BTEX, TPH, and chloride.
- Following delineation, impacted soil will be excavated to the maximum extent practicable (MEP). Due to the presence of active production equipment within the work area, soil may be left in place beneath and around the immediate surrounding area of said equipment for the health and safety of personnel on Site and/or the structural integrity of the active productive equipment. A third-party operator may be required to provide oversight and additional safety measures to be in place before or during remediation activities near their respective utilities. Maverick or third-party operator may implement additional safety precautions above encroachment guidelines, including restrictions on hand shoveling and cribbing. These restrictions may be implemented as health and safety precautions at the judgment and responsibility of a Maverick or third-party operator safety representative. As such, lateral and/or vertical delineation may be achieved via excavation conformation sidewall samples or delineation pothole and/or borehole samples. If impacted soil cannot be removed for any of the reasons described above, the area(s) will be assessed through delineation and deferred until the Site is reclaimed or undergoes major reconstruction.
- Excavated soil will then be transferred to a New Mexico approved landfill facility for disposal and the excavation will be backfilled with non-waste containing soil, as defined by "Procedures for Implementation of the Spill Rule" (September 6, 2019).
- Following additional delineation and subsequent excavation activities driven by field screening and laboratory analytical results, Maverick will proceed with providing NMOCD a report detailing activities performed on Site and, if applicable, proposing additional remedial actions based on results from remediation efforts.

Maverick believes the scope of work described above will meet the Site remediation requirements and are protective of human health, the environment, and groundwater. As such, Maverick respectfully requests approval of this *RWPA* from NMOCD. The Final C 141 is included in Appendix D.

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

EVGSAU Satellite 5



Sincerely,
Ensolum, LLC

A handwritten signature in black ink that reads "Anna Byers".

Anna Byers
Project Geologist

A handwritten signature in black ink that reads "Josh Adams".

Josh Adams, PG
Project Geologist

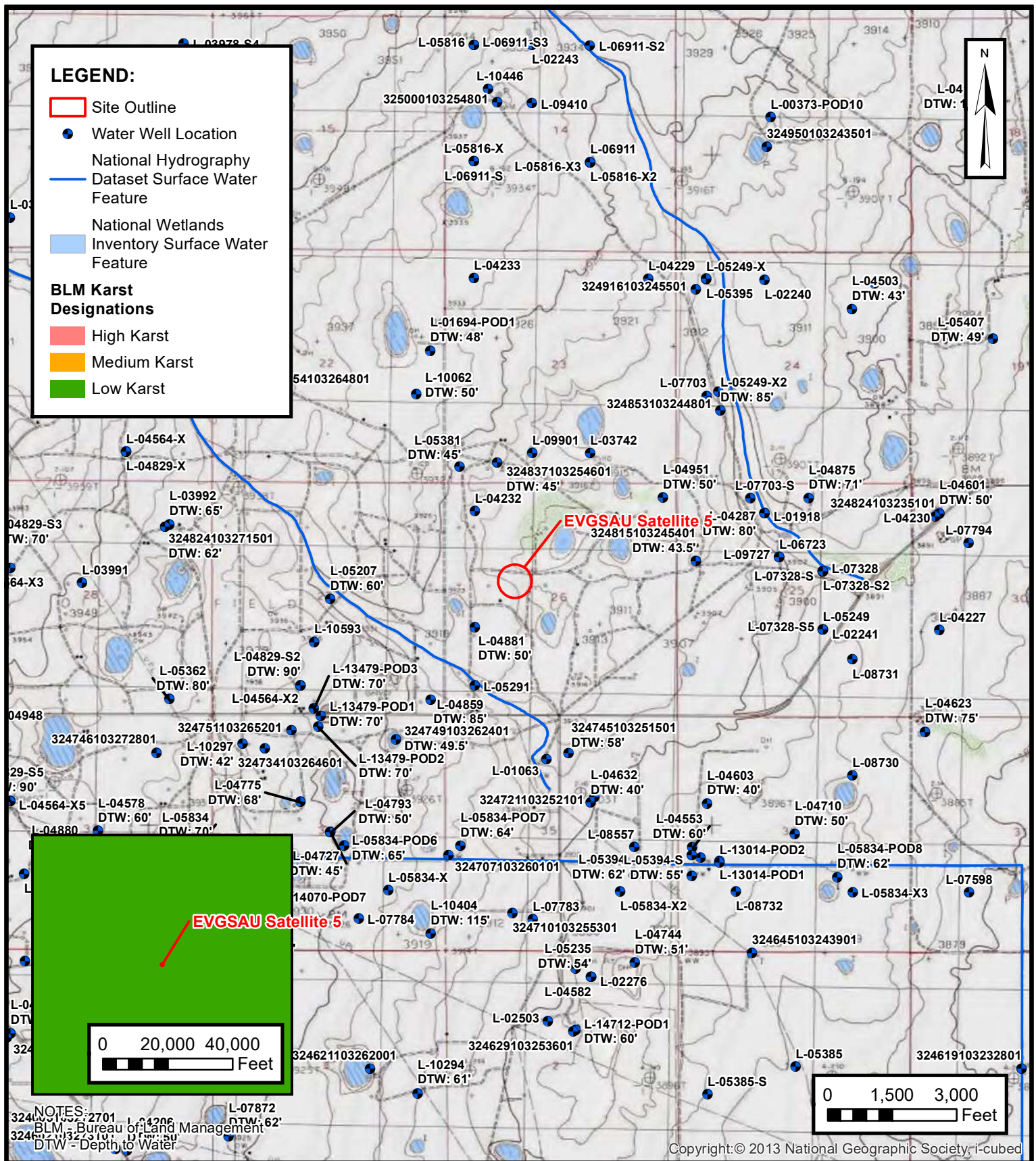
cc: Bryce Wagoner, Maverick Natural Resources, LLC
New Mexico State Land Office

Attachments:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Proposed Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Lithologic/Soil Sampling Logs
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	Final C-141



Figures



Site Receptor Map

Maverick Permian, LLC
 EVGSAU Satellite 5
 Incident Number NAPP2213957732
 Unit F, Sec 26, T17S, R35E
 Lea County, New Mexico

FIGURE

1

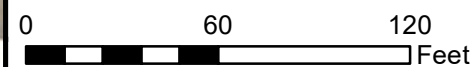
Legend

- Delineation Soil Sample with Concentrations in Compliance with Closure Criteria
- Terminus Soil Sample Compliant with Closure Criteria
- Delineation Soil Sample Location with Concentrations Exceeding Closure Criteria
- Release Extent



NOTES:

Soil samples in **bold** indicate soil concentrations exceeds the applicable regulatory closure criteria.
Sample ID@ Depth Below Ground Surface.



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Delineation Soil Sample Locations

Maverick Permian, LLC
EVGSAU Satellite 5
Incident Number NAPP2213957732
Unit F, Sec 26, T17S, R35E
Lea County, New Mexico

FIGURE

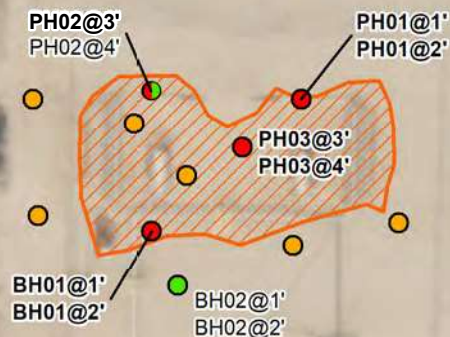
2



Legend

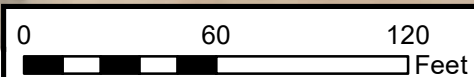
- Delineation Soil Sample with Concentrations in Compliance with Closure Criteria
- Terminus Soil Sample Compliant with Closure Criteria
- Delineation Soil Sample Location with Concentrations Exceeding Closure Criteria
- Proposed Delineation Soil Sample Location

 Release Extent



NOTES:

Soil samples in **bold** indicate soil concentrations exceeds the applicable regulatory closure criteria.
Sample ID@ Depth Below Ground Surface.



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Proposed Delineation Soil Sample Locations

Maverick Permian, LLC
EVGSAU Satellite 5
Incident Number NAPP2213957732
Unit F, Sec 26, T17S, R35E
Lea County, New Mexico

FIGURE
3



Tables

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 EVGSAU Satellite 5
 Maverick Natural Resources, LLC
 Lea County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Soil Samples										
BH01	1/9/2023	1	<0.00402	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	1,940
BH01	1/9/2023	2	<0.00398	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,210
BH02	1/9/2023	1	<0.00200	0.0514	<49.9	<49.9	<49.9	<49.9	<49.9	581
BH02	1/9/2023	2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	313
PH01	1/9/2023	1	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	4,880
PH01	1/9/2023	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	781
PH02	1/9/2023	3	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	2,320
PH02	1/9/2023	4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	515
PH03	1/9/2023	3	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	2,210
PH03	1/9/2023	4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	611

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics


TPH: Total Petroleum Hydrocarbon


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





APPENDIX A


Lithologic/Soil Sampling Logs

								Sample Name: BH01		Date: 01/09/23	
								Site Name: EVGSAU Satellite 5			
								Incident Number: NAPP2213957732			
								Job Number: 03D2057012			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: CS		Method: Hand Auger	
Coordinates: 32.806667, -103.431389								Hole Diameter: NA		Total Depth: 2'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
						0					
D	1,377	0.9	N	BH01	1	1	CCHE	CALICHE, White Grey, No stain, no odor			
D	1,092	0.4	N	BH01	2	2	CCHE	CALICHE, White Grey, no stain, no odor			
TD @ 2 feet bgs (Refusal)											

								Sample Name: BH02		Date: 01/09/23			
								Site Name: EVGSAU Satellite 5					
								Incident Number: NAPP2213957732					
								Job Number: 03D2057012					
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: CS		Method: Hand Auger			
Coordinates: 32.806667, -103.431389								Hole Diameter: NA		Total Depth: 2'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.													
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions					
						0							
D	470	0.7	N	BH02	1	1	CCHE	CALICHE, White Grey, No stain, no odor					
D	246	0.2	N	BH02	2	2	CCHE	CALICHE, White Grey, no stain, no odor					
<p style="text-align: center;">TD @ 2 feet bgs (Refusal)</p>													

								Sample Name: PH01		Date: 01/09/23	
								Site Name: EVGSAU Satellite 5			
								Incident Number: NAPP2213957732			
								Job Number: 03D2057012			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: CS		Method: Trackhoe	
Coordinates: 32.806667, -103.431389								Hole Diameter: NA		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
						0					
D	>3,421	0.9	N	PH01	1	1	CCHE	CALICHE, White Grey, No stain, no odor			
D	515	0.8	N	PH01	2	2	CCHE	CALICHE, dark brown dirt, no stain, no odor			
D	2,755	0.7	N			3	CCHE	CALICHE, White Grey, No stain, no odor			
D	700	0.7	N			4	CCHE	CALICHE, White Grey, No stain, no odor			
<p style="text-align: center;">TD @ 4 feet bgs (Refusal)</p>											

 ENSOLUM		Sample Name: PH02		Date: 01/09/23				
		Site Name: EVGSAU Satellite 5						
		Incident Number: NAPP2213957732						
		Job Number: 03D2057012						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.806667, -103.431389			Logged By: CS		Method: Trackhoe			
			Hole Diameter: NA		Total Depth: 4'			
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	1,831	1.1	N			1	CCHE	CALICHE, White Grey, No stain, no odor
D	1,478	0.9	N			2	CCHE	CALICHE, dark brown dirt, no stain, no odor
D	2,032	0.8	N	PH02	3	3	CCHE	CALICHE, White Grey, No stain, no odor
D	369	1.3	N	PH02	4	4	CCHE	CALICHE, White Grey, No stain, no odor
						TD @ 4 feet bgs (Refusal)		

								Sample Name: PH03		Date: 01/09/23					
								Site Name: EVGSAU Satellite 5							
								Incident Number: NAPP2213957732							
								Job Number: 03D2057012							
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: CS		Method: Trackhoe					
Coordinates: 32.806667, -103.431389								Hole Diameter: NA		Total Depth: 4'					
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.															
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions							
						0									
D	1,764	0.7	N	PH03	1	1	CCHE	CALICHE, White Grey, No stain, no odor							
D	649	0.4	N			2	CCHE	CALICHE, brown grey dirt, no stain, no odor							
D	1,125	0.7	N			3	CCHE	CALICHE, White Grey, No stain, no odor							
D	414	0.8	N	PH03	4	4	CCHE	CALICHE, White Grey, No stain, no odor							
<p style="text-align: center;">TD @ 4 feet bgs (Refusal)</p>															



APPENDIX B

Photographic Log



Photographic Log

Maverick Permian, LLC

EVGSAU Satellite 5

Incident Number NAPP2213957732



Photograph 1 Date: 01/09/2023

Description: Delineation activities around active surface and subsurface production equipment



Photograph 2 Date: 01/09/2023

Description: Delineation activities around active surface and subsurface production equipment



Photograph 3 Date: 01/09/2023

Description: Delineation activities around active surface and subsurface production equipment



Photograph 4 Date: 01/09/2023

Description: Delineation activities around active surface and subsurface production equipment



APPENDIX C

Laboratory Analytical Reports & Chain-of-Custody Documentation



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 1/16/2023 4:22:56 PM

JOB DESCRIPTION

EVGSAU SATELLITE 5
SDG NUMBER Lea County NM

JOB NUMBER

890-3790-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
1/16/2023 4:22:56 PM

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

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Laboratory Job ID: 890-3790-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Job ID: 890-3790-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3790-1****Receipt**

The samples were received on 1/10/2023 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH01 (890-3790-1) and BH01 (890-3790-2).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-43804 and analytical batch 880-43781 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-43804/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-43788 and analytical batch 880-43922 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Client Sample ID: BH01

Lab Sample ID: 890-3790-1

Date Collected: 01/09/23 09:00

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/12/23 09:36	01/13/23 03:07	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/12/23 09:36	01/13/23 03:07	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/12/23 09:36	01/13/23 03:07	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/12/23 09:36	01/13/23 03:07	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/12/23 09:36	01/13/23 03:07	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/12/23 09:36	01/13/23 03:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	01/12/23 09:36	01/13/23 03:07	1
1,4-Difluorobenzene (Surr)	105		70 - 130	01/12/23 09:36	01/13/23 03:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/13/23 07:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/13/23 12:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 02:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 02:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 02:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	01/12/23 11:42	01/13/23 02:17	1
o-Terphenyl	115		70 - 130	01/12/23 11:42	01/13/23 02:17	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1940		25.1	mg/Kg			01/13/23 18:50	5

Client Sample ID: BH01

Lab Sample ID: 890-3790-2

Date Collected: 01/09/23 09:10

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/12/23 09:36	01/13/23 05:38	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/12/23 09:36	01/13/23 05:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/12/23 09:36	01/13/23 05:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/12/23 09:36	01/13/23 05:38	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/12/23 09:36	01/13/23 05:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/12/23 09:36	01/13/23 05:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	01/12/23 09:36	01/13/23 05:38	1

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Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Client Sample ID: BH01

Lab Sample ID: 890-3790-2

Date Collected: 01/09/23 09:10

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	01/12/23 09:36	01/13/23 05:38	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/13/23 07:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/13/23 12:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 02:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 02:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 02:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			01/12/23 11:42	01/13/23 02:39	1
o-Terphenyl	113		70 - 130			01/12/23 11:42	01/13/23 02:39	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1210		4.98	mg/Kg			01/13/23 18:55	1

Surrogate Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-23427-A-60-D MS	Matrix Spike	106	104
880-23427-A-60-E MSD	Matrix Spike Duplicate	100	104
890-3790-1	BH01	109	105
890-3790-2	BH01	105	103
LCS 880-43798/1-A	Lab Control Sample	107	103
LCSD 880-43798/2-A	Lab Control Sample Dup	107	101
MB 880-43543/5-A	Method Blank	102	103
MB 880-43798/5-A	Method Blank	105	103
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3790-1	BH01	102	115
890-3790-2	BH01	100	113
890-3804-A-1-F MS	Matrix Spike	96	100
890-3804-A-1-G MSD	Matrix Spike Duplicate	98	102
LCS 880-43804/2-A	Lab Control Sample	106	107
LCSD 880-43804/3-A	Lab Control Sample Dup	122	121
MB 880-43804/1-A	Method Blank	144 S1+	154 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43543/5-A

Matrix: Solid

Analysis Batch: 43790

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43543

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/09/23 12:59	01/12/23 12:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/09/23 12:59	01/12/23 12:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/09/23 12:59	01/12/23 12:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/09/23 12:59	01/12/23 12:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/09/23 12:59	01/12/23 12:39	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/09/23 12:59	01/12/23 12:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	01/09/23 12:59	01/12/23 12:39	1
1,4-Difluorobenzene (Surr)	103		70 - 130	01/09/23 12:59	01/12/23 12:39	1

Lab Sample ID: MB 880-43798/5-A

Matrix: Solid

Analysis Batch: 43790

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43798

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/12/23 09:36	01/13/23 00:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/12/23 09:36	01/13/23 00:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/12/23 09:36	01/13/23 00:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/12/23 09:36	01/13/23 00:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/12/23 09:36	01/13/23 00:15	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/12/23 09:36	01/13/23 00:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	01/12/23 09:36	01/13/23 00:15	1
1,4-Difluorobenzene (Surr)	103		70 - 130	01/12/23 09:36	01/13/23 00:15	1

Lab Sample ID: LCS 880-43798/1-A

Matrix: Solid

Analysis Batch: 43790

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43798

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1072		mg/Kg		107	70 - 130
Toluene	0.100	0.1006		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.09693		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2000		mg/Kg		100	70 - 130
o-Xylene	0.100	0.09693		mg/Kg		97	70 - 130

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

Lab Sample ID: LCSD 880-43798/2-A

Matrix: Solid

Analysis Batch: 43790

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43798

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1049		mg/Kg		105	70 - 130	2	35

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43798/2-A

Matrix: Solid

Analysis Batch: 43790

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43798

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.09922		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.09609		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1987		mg/Kg		99	70 - 130	1	35
o-Xylene	0.100	0.09567		mg/Kg		96	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-23427-A-60-D MS

Matrix: Solid

Analysis Batch: 43790

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43798

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.1076		mg/Kg		108	70 - 130
Toluene	<0.00200	U	0.0998	0.09829		mg/Kg		98	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.09621		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1987		mg/Kg		100	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09623		mg/Kg		96	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-23427-A-60-E MSD

Matrix: Solid

Analysis Batch: 43790

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43798

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.09822		mg/Kg		97	70 - 130	9	35
Toluene	<0.00200	U	0.101	0.09127		mg/Kg		91	70 - 130	7	35
Ethylbenzene	<0.00200	U	0.101	0.08832		mg/Kg		88	70 - 130	9	35
m-Xylene & p-Xylene	<0.00399	U	0.202	0.1831		mg/Kg		91	70 - 130	8	35
o-Xylene	<0.00200	U	0.101	0.08885		mg/Kg		88	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

Lab Sample ID: MB 880-43804/1-A

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43804

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/12/23 19:44	1

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43804/1-A

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43804

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/12/23 19:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/12/23 19:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130			01/12/23 11:42	01/12/23 19:44	1
o-Terphenyl	154	S1+	70 - 130			01/12/23 11:42	01/12/23 19:44	1

Lab Sample ID: LCS 880-43804/2-A

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43804

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	949.4		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	1000	934.9		mg/Kg		93	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	106		70 - 130				
o-Terphenyl	107		70 - 130				

Lab Sample ID: LCSD 880-43804/3-A

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43804

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	914.9		mg/Kg		91	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	1075		mg/Kg		108	70 - 130	14	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	122		70 - 130						
o-Terphenyl	121		70 - 130						

Lab Sample ID: 890-3804-A-1-F MS

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43804

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	998	891.6		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	983.2		mg/Kg		99	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	96		70 - 130						
o-Terphenyl	100		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

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

Lab Sample ID: 890-3804-A-1-G MSD

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43804

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	997	1139	F2	mg/Kg		113	70 - 130	24	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1082		mg/Kg		109	70 - 130	10	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	98		70 - 130								
o-Terphenyl	102		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43788/1-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/13/23 17:28	1

Lab Sample ID: LCS 880-43788/2-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.1		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-43788/3-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.7		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3787-A-1-C MS

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	9260	F1	2510	12420	F1	mg/Kg		126	90 - 110

Lab Sample ID: 890-3787-A-1-D MSD

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	9260	F1	2510	12390	F1	mg/Kg		125	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3791-A-1-D MS							Client Sample ID: Matrix Spike				
Matrix: Solid							Prep Type: Soluble				
Analysis Batch: 43922											
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	2210		1240	3493		mg/Kg		104	90 - 110		

Lab Sample ID: 890-3791-A-1-E MSD							Client Sample ID: Matrix Spike Duplicate				
Matrix: Solid							Prep Type: Soluble				
Analysis Batch: 43922											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	2210		1240	3475		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

GC VOA

Prep Batch: 43543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43543/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 43790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3790-1	BH01	Total/NA	Solid	8021B	43798
890-3790-2	BH01	Total/NA	Solid	8021B	43798
MB 880-43543/5-A	Method Blank	Total/NA	Solid	8021B	43543
MB 880-43798/5-A	Method Blank	Total/NA	Solid	8021B	43798
LCS 880-43798/1-A	Lab Control Sample	Total/NA	Solid	8021B	43798
LCSD 880-43798/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43798
880-23427-A-60-D MS	Matrix Spike	Total/NA	Solid	8021B	43798
880-23427-A-60-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43798

Prep Batch: 43798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3790-1	BH01	Total/NA	Solid	5035	
890-3790-2	BH01	Total/NA	Solid	5035	
MB 880-43798/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43798/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43798/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-23427-A-60-D MS	Matrix Spike	Total/NA	Solid	5035	
880-23427-A-60-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3790-1	BH01	Total/NA	Solid	Total BTEX	
890-3790-2	BH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 43781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3790-1	BH01	Total/NA	Solid	8015B NM	43804
890-3790-2	BH01	Total/NA	Solid	8015B NM	43804
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015B NM	43804
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43804
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43804
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	43804
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43804

Prep Batch: 43804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3790-1	BH01	Total/NA	Solid	8015NM Prep	
890-3790-2	BH01	Total/NA	Solid	8015NM Prep	
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 43886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3790-1	BH01	Total/NA	Solid	8015 NM	
890-3790-2	BH01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3790-1	BH01	Soluble	Solid	DI Leach	
890-3790-2	BH01	Soluble	Solid	DI Leach	
MB 880-43788/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3787-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3787-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3790-1	BH01	Soluble	Solid	300.0	43788
890-3790-2	BH01	Soluble	Solid	300.0	43788
MB 880-43788/1-A	Method Blank	Soluble	Solid	300.0	43788
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	300.0	43788
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43788
890-3787-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	43788
890-3787-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43788
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	43788
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43788

Lab Chronicle

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Client Sample ID: BH01
Date Collected: 01/09/23 09:00
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3790-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	43798	01/12/23 09:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43790	01/13/23 03:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			43860	01/13/23 07:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43886	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/13/23 02:17	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		5			43922	01/13/23 18:50	CH	EET MID

Client Sample ID: BH01
Date Collected: 01/09/23 09:10
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3790-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	43798	01/12/23 09:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43790	01/13/23 05:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			43860	01/13/23 07:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43886	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/13/23 02:39	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 18:55	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

- 1
- 2
- 3
- 4
- 5
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- 13
- 14

Method Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3790-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3790-1	BH01	Solid	01/09/23 09:00	01/10/23 09:05	1
890-3790-2	BH01	Solid	01/09/23 09:10	01/10/23 09:05	2

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De la Compañia de Jesus
XEROX

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) 754-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No.:

Page www.xenco.com

202

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting: Level II	<input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3790-1

SDG Number: Lea County NM

Login Number: 3790

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3790-1

SDG Number: Lea County NM

Login Number: 3790

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 01/11/23 11:43 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701
Generated 1/16/2023 6:20:07 PM

JOB DESCRIPTION

EVGSAU SATELLITE 5
SDG NUMBER Lea County NM

JOB NUMBER

890-3789-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
1/16/2023 6:20:07 PM

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

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Laboratory Job ID: 890-3789-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Job ID: 890-3789-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3789-1****Receipt**

The samples were received on 1/10/2023 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH02 (890-3789-1) and BH02 (890-3789-2).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-43804 and analytical batch 880-43781 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-43804/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-43788 and analytical batch 880-43922 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Client Sample ID: BH02

Lab Sample ID: 890-3789-1

Date Collected: 01/09/23 13:20

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/14/23 02:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/14/23 02:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/14/23 02:23	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/11/23 12:26	01/14/23 02:23	1
o-Xylene	0.0514		0.00200	mg/Kg		01/11/23 12:26	01/14/23 02:23	1
Xylenes, Total	0.0514		0.00401	mg/Kg		01/11/23 12:26	01/14/23 02:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	01/11/23 12:26	01/14/23 02:23	1
1,4-Difluorobenzene (Surr)	78		70 - 130	01/11/23 12:26	01/14/23 02:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0514		0.00401	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/13/23 12:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/12/23 11:42	01/13/23 01:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/12/23 11:42	01/13/23 01:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/12/23 11:42	01/13/23 01:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			01/12/23 11:42	01/13/23 01:32	1
o-Terphenyl	120		70 - 130			01/12/23 11:42	01/13/23 01:32	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	581		5.00	mg/Kg			01/13/23 18:39	1

Client Sample ID: BH02

Lab Sample ID: 890-3789-2

Date Collected: 01/09/23 13:25

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/14/23 02:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/14/23 02:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/14/23 02:50	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/11/23 12:26	01/14/23 02:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/14/23 02:50	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/11/23 12:26	01/14/23 02:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	01/11/23 12:26	01/14/23 02:50	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Client Sample ID: BH02

Lab Sample ID: 890-3789-2

Date Collected: 01/09/23 13:25

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	01/11/23 12:26	01/14/23 02:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/13/23 12:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 01:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 01:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/13/23 01:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			01/12/23 11:42	01/13/23 01:54	1
o-Terphenyl	116		70 - 130			01/12/23 11:42	01/13/23 01:54	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	313		5.03	mg/Kg			01/13/23 18:45	1

Surrogate Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3783-A-1-A MS	Matrix Spike	97	104
890-3783-A-1-B MSD	Matrix Spike Duplicate	80	88
890-3789-1	BH02	97	78
890-3789-2	BH02	110	95
LCS 880-43732/1-A	Lab Control Sample	104	103
LCSD 880-43732/2-A	Lab Control Sample Dup	90	94
MB 880-43732/5-A	Method Blank	71	89
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3789-1	BH02	105	120
890-3789-2	BH02	100	116
890-3804-A-1-F MS	Matrix Spike	96	100
890-3804-A-1-G MSD	Matrix Spike Duplicate	98	102
LCS 880-43804/2-A	Lab Control Sample	106	107
LCSD 880-43804/3-A	Lab Control Sample Dup	122	121
MB 880-43804/1-A	Method Blank	144 S1+	154 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43732

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/11/23 12:26	01/13/23 17:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/11/23 12:26	01/13/23 17:05	1

Lab Sample ID: LCS 880-43732/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43732

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1063		mg/Kg		106	70 - 130
Toluene	0.100	0.1068		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1090		mg/Kg		109	70 - 130
m-Xylene & p-Xylene	0.200	0.2280		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1083		mg/Kg		108	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-43732/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43732

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08286		mg/Kg		83	70 - 130	25	35
Toluene	0.100	0.07825		mg/Kg		78	70 - 130	31	35
Ethylbenzene	0.100	0.08311		mg/Kg		83	70 - 130	27	35
m-Xylene & p-Xylene	0.200	0.1720		mg/Kg		86	70 - 130	28	35
o-Xylene	0.100	0.08557		mg/Kg		86	70 - 130	23	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-3783-A-1-A MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43732

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.0998	0.09041		mg/Kg		91	70 - 130
Toluene	<0.00202	U	0.0998	0.08508		mg/Kg		85	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

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

Lab Sample ID: 890-3783-A-1-A MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43732

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0998	0.08917		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1833		mg/Kg		92	70 - 130
o-Xylene	<0.00202	U	0.0998	0.08757		mg/Kg		88	70 - 130

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

Lab Sample ID: 890-3783-A-1-B MSD

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43732

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.08380		mg/Kg		83	70 - 130	8	35
Toluene	<0.00202	U	0.100	0.07632		mg/Kg		76	70 - 130	11	35
Ethylbenzene	<0.00202	U	0.100	0.08294		mg/Kg		83	70 - 130	7	35
m-Xylene & p-Xylene	<0.00403	U	0.201	0.1702		mg/Kg		85	70 - 130	7	35
o-Xylene	<0.00202	U	0.100	0.07939		mg/Kg		79	70 - 130	10	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	80		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

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

Lab Sample ID: MB 880-43804/1-A

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43804

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/12/23 19:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/12/23 19:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 11:42	01/12/23 19:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130	01/12/23 11:42	01/12/23 19:44	1
o-Terphenyl	154	S1+	70 - 130	01/12/23 11:42	01/12/23 19:44	1

Lab Sample ID: LCS 880-43804/2-A

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43804

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	949.4		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	1000	934.9		mg/Kg		93	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-43804/2-A

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43804

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-43804/3-A

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43804

			Spike	LCSD	LCSD				%Rec			
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	914.9		mg/Kg		91	70 - 130	4	20	
Diesel Range Organics (Over C10-C28)			1000	1075		mg/Kg		108	70 - 130	14	20	
	LCSD	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	122		70 - 130									
o-Terphenyl	121		70 - 130									

Lab Sample ID: 890-3804-A-1-F MS

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43804

	Sample	Sample	Spike	MS	MS				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	998	891.6		mg/Kg		88	70 - 130			
Diesel Range Organics (Over C10-C28)	<49.9	U	998	983.2		mg/Kg		99	70 - 130			
	MS	MS										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	96		70 - 130									
o-Terphenyl	100		70 - 130									

Lab Sample ID: 890-3804-A-1-G MSD

Matrix: Solid

Analysis Batch: 43781

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43804

	Sample	Sample	Spike	MSD	MSD				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	997	1139	F2	mg/Kg		113	70 - 130	24	20	
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1082		mg/Kg		109	70 - 130	10	20	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	98		70 - 130									
o-Terphenyl	102		70 - 130									

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43788/1-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/13/23 17:28	1

Lab Sample ID: LCS 880-43788/2-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.1		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-43788/3-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.7		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3787-A-1-C MS

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	9260	F1	2510	12420	F1	mg/Kg		126	90 - 110

Lab Sample ID: 890-3787-A-1-D MSD

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	9260	F1	2510	12390	F1	mg/Kg		125	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3789-1	BH02	Total/NA	Solid	5035	
890-3789-2	BH02	Total/NA	Solid	5035	
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43732/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43732/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3783-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3783-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3789-1	BH02	Total/NA	Solid	8021B	43732
890-3789-2	BH02	Total/NA	Solid	8021B	43732
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
LCS 880-43732/1-A	Lab Control Sample	Total/NA	Solid	8021B	43732
LCSD 880-43732/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43732
890-3783-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43732
890-3783-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43732

Analysis Batch: 44092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3789-1	BH02	Total/NA	Solid	Total BTEX	
890-3789-2	BH02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 43781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3789-1	BH02	Total/NA	Solid	8015B NM	43804
890-3789-2	BH02	Total/NA	Solid	8015B NM	43804
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015B NM	43804
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43804
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43804
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	43804
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43804

Prep Batch: 43804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3789-1	BH02	Total/NA	Solid	8015NM Prep	
890-3789-2	BH02	Total/NA	Solid	8015NM Prep	
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3789-1	BH02	Total/NA	Solid	8015 NM	
890-3789-2	BH02	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 43788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3789-1	BH02	Soluble	Solid	DI Leach	
890-3789-2	BH02	Soluble	Solid	DI Leach	
MB 880-43788/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3787-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3787-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3789-1	BH02	Soluble	Solid	300.0	43788
890-3789-2	BH02	Soluble	Solid	300.0	43788
MB 880-43788/1-A	Method Blank	Soluble	Solid	300.0	43788
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	300.0	43788
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43788
890-3787-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	43788
890-3787-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43788

Lab Chronicle

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Client Sample ID: BH02
Date Collected: 01/09/23 13:20
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3789-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	43732	01/11/23 12:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 02:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44092	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43885	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/13/23 01:32	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 18:39	CH	EET MID

Client Sample ID: BH02
Date Collected: 01/09/23 13:25
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3789-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	43732	01/11/23 12:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 02:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44092	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43885	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/13/23 01:54	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 18:45	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3789-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3789-1	BH02	Solid	01/09/23 13:20	01/10/23 09:05	1
890-3789-2	BH02	Solid	01/09/23 13:25	01/10/23 09:05	2

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



Environment Testing
Xenco

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

Chain of Custody


Work Order No: _____

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Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com

Work Order Comments	
Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	

Project Name:	EVGSAU Satellite 5	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03D2057012	Due Date:			
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Conner Shore				
PO #:					
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Thermometer ID:	7110057		
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Correction Factor:	-0.2		
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading:	2.6		
Total Containers:		Corrected Temperature:	2.4		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST															
							TPH (8015)	Chlorides	BTEX (8021)													
BH02	S	1.9.23	1320	1'	G	1	x	x	x													
BH02	S	1.9.23	1325	2'	G	1	x	x	x													
 890-3789 Chain of Custody																						

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn		
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U													
				Hg: 1631 / 245.1 / 7470 / 7471																													
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.																																	
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time																												
1					1.10.23 905																												
3																																	
5																																	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3789-1

SDG Number: Lea County NM

Login Number: 3789

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3789-1

SDG Number: Lea County NM

Login Number: 3789

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 01/11/23 11:43 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 1/16/2023 6:24:03 PM

JOB DESCRIPTION

EVGSAU SATELLITE 5

SDG NUMBER Lea County NM

JOB NUMBER

890-3794-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
1/16/2023 6:24:03 PM

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

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Laboratory Job ID: 890-3794-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

Job ID: 890-3794-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3794-1

Receipt

The sample was received on 1/10/2023 9:05 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C

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: PH01 (890-3794-1), (LCSD 880-43908/3-A), (MB 880-43908/1-A) and (890-3793-A-1-C). 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.

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Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

Client Sample ID: PH01

Lab Sample ID: 890-3794-1

Date Collected: 01/09/23 09:45

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 09:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 09:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 09:32	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/11/23 12:47	01/14/23 09:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 09:32	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/11/23 12:47	01/14/23 09:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	01/11/23 12:47	01/14/23 09:32	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 09:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/16/23 16:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/13/23 13:08	01/15/23 12:11	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/13/23 13:08	01/15/23 12:11	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/13/23 13:08	01/15/23 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	01/13/23 13:08	01/15/23 12:11	1
o-Terphenyl	139	S1+	70 - 130	01/13/23 13:08	01/15/23 12:11	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4880		24.9	mg/Kg			01/13/23 19:50	5

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Surrogate Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3791-A-1-A MS	Matrix Spike	116	95
890-3791-A-1-B MSD	Matrix Spike Duplicate	111	96
890-3794-1	PH01	103	90
LCS 880-43735/1-A	Lab Control Sample	105	102
LCSD 880-43735/2-A	Lab Control Sample Dup	106	105
MB 880-43732/5-A	Method Blank	71	89
MB 880-43735/5-A	Method Blank	75	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3793-A-1-D MS	Matrix Spike	92	100
890-3793-A-1-E MSD	Matrix Spike Duplicate	96	107
890-3794-1	PH01	128	139 S1+
LCS 880-43908/2-A	Lab Control Sample	111	127
LCSD 880-43908/3-A	Lab Control Sample Dup	110	132 S1+
MB 880-43908/1-A	Method Blank	167 S1+	203 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43732

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/11/23 12:26	01/13/23 17:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/11/23 12:26	01/13/23 17:05	1

Lab Sample ID: MB 880-43735/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43735

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/11/23 12:47	01/14/23 06:48	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 06:48	1

Lab Sample ID: LCS 880-43735/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1102		mg/Kg		110	70 - 130
Toluene	0.100	0.09645		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09590		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09743		mg/Kg		97	70 - 130

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1207		mg/Kg		121	70 - 130	9	35

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	9	35
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2215		mg/Kg		111	70 - 130	11	35
o-Xylene	0.100	0.1083		mg/Kg		108	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3791-A-1-A MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1038		mg/Kg		103	70 - 130
Toluene	<0.00201	U	0.101	0.09117		mg/Kg		90	70 - 130
Ethylbenzene	<0.00201	U	0.101	0.08880		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1824		mg/Kg		90	70 - 130
o-Xylene	<0.00201	U	0.101	0.08945		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3791-A-1-B MSD

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08711		mg/Kg		88	70 - 130	17	35
Toluene	<0.00201	U	0.0990	0.07304		mg/Kg		74	70 - 130	22	35
Ethylbenzene	<0.00201	U	0.0990	0.07264		mg/Kg		73	70 - 130	20	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1486		mg/Kg		75	70 - 130	20	35
o-Xylene	<0.00201	U	0.0990	0.07570		mg/Kg		76	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-43908/1-A

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43908

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/13/23 13:08	01/15/23 08:29	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43908/1-A

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43908

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/13/23 13:08	01/15/23 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/13/23 13:08	01/15/23 08:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	167	S1+	70 - 130			01/13/23 13:08	01/15/23 08:29	1
o-Terphenyl	203	S1+	70 - 130			01/13/23 13:08	01/15/23 08:29	1

Lab Sample ID: LCS 880-43908/2-A

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1045		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	1000	972.8		mg/Kg		97	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	111		70 - 130				
o-Terphenyl	127		70 - 130				

Lab Sample ID: LCSD 880-43908/3-A

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1027		mg/Kg		103	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	981.4		mg/Kg		98	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	110		70 - 130						
o-Terphenyl	132	S1+	70 - 130						

Lab Sample ID: 890-3793-A-1-D MS

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	872.4		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1034		mg/Kg		102	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	92		70 - 130						
o-Terphenyl	100		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

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

Lab Sample ID: 890-3793-A-1-E MSD

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	901.5		mg/Kg		88	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1119		mg/Kg		111	70 - 130	8	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	107		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43788/1-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/13/23 17:28	1

Lab Sample ID: LCS 880-43788/2-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.1		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-43788/3-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.7		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3791-A-1-D MS

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2210		1240	3493		mg/Kg		104	90 - 110

Lab Sample ID: 890-3791-A-1-E MSD

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2210		1240	3475		mg/Kg		102	90 - 110	1	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 43735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3794-1	PH01	Total/NA	Solid	5035	
MB 880-43735/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3794-1	PH01	Total/NA	Solid	8021B	43735
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
MB 880-43735/5-A	Method Blank	Total/NA	Solid	8021B	43735
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	8021B	43735
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43735
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43735
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43735

Analysis Batch: 44097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3794-1	PH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 43908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3794-1	PH01	Total/NA	Solid	8015NM Prep	
MB 880-43908/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43908/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43908/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3793-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3793-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3794-1	PH01	Total/NA	Solid	8015B NM	43908
MB 880-43908/1-A	Method Blank	Total/NA	Solid	8015B NM	43908
LCS 880-43908/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43908
LCSD 880-43908/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43908
890-3793-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	43908
890-3793-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43908

Analysis Batch: 44059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3794-1	PH01	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 43788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3794-1	PH01	Soluble	Solid	DI Leach	
MB 880-43788/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3794-1	PH01	Soluble	Solid	300.0	43788
MB 880-43788/1-A	Method Blank	Soluble	Solid	300.0	43788
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	300.0	43788
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43788
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	43788
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43788

Lab Chronicle

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

Client Sample ID: PH01
Date Collected: 01/09/23 09:45
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3794-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 09:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44097	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44059	01/16/23 16:51	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	43908	01/13/23 13:08	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43947	01/15/23 12:11	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		5			43922	01/13/23 19:50	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

- 1
- 2
- 3
- 4
- 5
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- 11
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- 13
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Method Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3794-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3794-1	PH01	Solid	01/09/23 09:45	01/10/23 09:05	1

- 1
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Environment Testing

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

Chain of Custody

Work Order No:

Page www.xenco.comPage 1 of 1

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting: Level II	<input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	EVGSAU Satellite 5	Turn Around		ANALYSIS REQUEST										Preservative Codes		
Project Number:	03D2057012	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush	Pres. Code											None: NO	DI Water: H ₂ O
Project Location:	Lea County, NM	Due Date:													Cool: Cool	MeOH: Me
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm													HCL: HC	HNO ₃ : HN
PO #:															H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											H ₃ PO ₄ : HP
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:														NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading:														Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Corrected Temperature:														Zn Acetate+NaOH: Zn
Total Containers:																NaOH+Ascorbic Acid: SAPC

[illegible]

Total	200.7 / 6010	200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed	8RCRA TCLP/SPLP 6010:	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zr Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>CS</i>	<i>Clue GP</i>	11.08.20 9.07			
3		1.10.23 <i>CC</i>	4		
5			6		

Revised Date: 08/25/2020 Box 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3794-1

SDG Number: Lea County NM

Login Number: 3794

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3794-1

SDG Number: Lea County NM

Login Number: 3794

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 01/11/23 12:47 PM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green

Ensolum

601 N. Marienfeld St.

Suite 400

Midland, Texas 79701

Generated 1/16/2023 6:24:03 PM

JOB DESCRIPTION

EVGSAU SATILLITE 5

SDG NUMBER Lea County NM

JOB NUMBER

890-3793-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
1/16/2023 6:24:03 PM

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

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Laboratory Job ID: 890-3793-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

Job ID: 890-3793-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-3793-1

Receipt

The sample was received on 1/10/2023 9:05 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: PH01 (890-3793-1).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH01 (890-3793-1), (LCSD 880-43908/3-A) and (MB 880-43908/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

Client Sample ID: PH01

Lab Sample ID: 890-3793-1

Date Collected: 01/09/23 09:50

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 09:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 09:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 09:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/11/23 12:47	01/14/23 09:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 09:05	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/11/23 12:47	01/14/23 09:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	01/11/23 12:47	01/14/23 09:05	1
1,4-Difluorobenzene (Surr)	85		70 - 130	01/11/23 12:47	01/14/23 09:05	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/16/23 16:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/13/23 13:08	01/15/23 11:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/13/23 13:08	01/15/23 11:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/13/23 13:08	01/15/23 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	01/13/23 13:08	01/15/23 11:05	1
o-Terphenyl	135	S1+	70 - 130	01/13/23 13:08	01/15/23 11:05	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	781		5.00	mg/Kg			01/13/23 19:44	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3791-A-1-A MS	Matrix Spike	116	95
890-3791-A-1-B MSD	Matrix Spike Duplicate	111	96
890-3793-1	PH01	92	85
LCS 880-43735/1-A	Lab Control Sample	105	102
LCSD 880-43735/2-A	Lab Control Sample Dup	106	105
MB 880-43732/5-A	Method Blank	71	89
MB 880-43735/5-A	Method Blank	75	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3793-1	PH01	109	135 S1+
890-3793-1 MS	PH01	92	100
890-3793-1 MSD	PH01	96	107
LCS 880-43908/2-A	Lab Control Sample	111	127
LCSD 880-43908/3-A	Lab Control Sample Dup	110	132 S1+
MB 880-43908/1-A	Method Blank	167 S1+	203 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43732

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/11/23 12:26	01/13/23 17:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/11/23 12:26	01/13/23 17:05	1

Lab Sample ID: MB 880-43735/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43735

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/11/23 12:47	01/14/23 06:48	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 06:48	1

Lab Sample ID: LCS 880-43735/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1102		mg/Kg		110	70 - 130
Toluene	0.100	0.09645		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09590		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09743		mg/Kg		97	70 - 130

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1207		mg/Kg		121	70 - 130	9	35

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	9	35
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2215		mg/Kg		111	70 - 130	11	35
o-Xylene	0.100	0.1083		mg/Kg		108	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3791-A-1-A MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1038		mg/Kg		103	70 - 130
Toluene	<0.00201	U	0.101	0.09117		mg/Kg		90	70 - 130
Ethylbenzene	<0.00201	U	0.101	0.08880		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1824		mg/Kg		90	70 - 130
o-Xylene	<0.00201	U	0.101	0.08945		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3791-A-1-B MSD

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08711		mg/Kg		88	70 - 130	17	35
Toluene	<0.00201	U	0.0990	0.07304		mg/Kg		74	70 - 130	22	35
Ethylbenzene	<0.00201	U	0.0990	0.07264		mg/Kg		73	70 - 130	20	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1486		mg/Kg		75	70 - 130	20	35
o-Xylene	<0.00201	U	0.0990	0.07570		mg/Kg		76	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-43908/1-A

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43908

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/13/23 13:08	01/15/23 08:29	1

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43908/1-A

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43908

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/13/23 13:08	01/15/23 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/13/23 13:08	01/15/23 08:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	167	S1+	70 - 130			01/13/23 13:08	01/15/23 08:29	1
o-Terphenyl	203	S1+	70 - 130			01/13/23 13:08	01/15/23 08:29	1

Lab Sample ID: LCS 880-43908/2-A

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1045		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	1000	972.8		mg/Kg		97	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	111		70 - 130				
o-Terphenyl	127		70 - 130				

Lab Sample ID: LCSD 880-43908/3-A

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1027		mg/Kg		103	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	981.4		mg/Kg		98	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	110		70 - 130						
o-Terphenyl	132	S1+	70 - 130						

Lab Sample ID: 890-3793-1 MS

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: PH01

Prep Type: Total/NA

Prep Batch: 43908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	872.4		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1034		mg/Kg		102	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	92		70 - 130						
o-Terphenyl	100		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

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

Lab Sample ID: 890-3793-1 MSD

Matrix: Solid

Analysis Batch: 43947

Client Sample ID: PH01

Prep Type: Total/NA

Prep Batch: 43908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	901.5		mg/Kg		88	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1119		mg/Kg		111	70 - 130	8	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	107		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43788/1-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/13/23 17:28	1

Lab Sample ID: LCS 880-43788/2-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.1		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-43788/3-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.7		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3791-A-1-D MS

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2210		1240	3493		mg/Kg		104	90 - 110

Lab Sample ID: 890-3791-A-1-E MSD

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2210		1240	3475		mg/Kg		102	90 - 110	1	20

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QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 43735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3793-1	PH01	Total/NA	Solid	5035	
MB 880-43735/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3793-1	PH01	Total/NA	Solid	8021B	43735
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
MB 880-43735/5-A	Method Blank	Total/NA	Solid	8021B	43735
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	8021B	43735
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43735
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43735
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43735

Analysis Batch: 44096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3793-1	PH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 43908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3793-1	PH01	Total/NA	Solid	8015NM Prep	
MB 880-43908/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43908/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43908/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3793-1 MS	PH01	Total/NA	Solid	8015NM Prep	
890-3793-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3793-1	PH01	Total/NA	Solid	8015B NM	43908
MB 880-43908/1-A	Method Blank	Total/NA	Solid	8015B NM	43908
LCS 880-43908/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43908
LCSD 880-43908/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43908
890-3793-1 MS	PH01	Total/NA	Solid	8015B NM	43908
890-3793-1 MSD	PH01	Total/NA	Solid	8015B NM	43908

Analysis Batch: 44058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3793-1	PH01	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 43788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3793-1	PH01	Soluble	Solid	DI Leach	
MB 880-43788/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3793-1	PH01	Soluble	Solid	300.0	43788
MB 880-43788/1-A	Method Blank	Soluble	Solid	300.0	43788
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	300.0	43788
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43788
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	43788
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43788

Lab Chronicle

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

Client Sample ID: PH01 Lab Sample ID: 890-3793-1
Date Collected: 01/09/23 09:50 Matrix: Solid
Date Received: 01/10/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 09:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44096	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44058	01/16/23 16:51	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	43908	01/13/23 13:08	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43947	01/15/23 11:05	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 19:44	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

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

Protocol References:

- ASTM = ASTM International
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: EVGSAU SATILLITE 5

Job ID: 890-3793-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3793-1	PH01	Solid	01/09/23 09:50	01/10/23 09:05	2

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



Washburn & Kennerly

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

Chain of Custody

Work Order No:

www.xenco.com Page

201

Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marlenfeld St Suite 400	Address:	601 N Marlenfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com



Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting: Level I <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	EVGSAU Satellite 5	Turn Around		ANALYSIS REQUEST										Preservative Codes		
Project Number:	03D2057012	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush	Pres. Code											None: NO	DI Water: H ₂ O
Project Location:	Lea County, NM	Due Date:													Cool: Cool	MeOH: Me
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm													HCL: HC	HNO ₃ : HN
PO #:															H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	Temp Blank:	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No									H ₃ PO ₄ : HP	
	Samples Received Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Thermometer ID:	1A-M007										NaHSO ₄ : NABIS	
	Cooler Custody Seals:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Correction Factor:	-0.8										Na ₂ S ₂ O ₃ : NASO ₃	
	Sample Custody Seals:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Temperature Reading:	2.8										Zn Acetate+NaOH: Zn	
	Total Containers:			Corrected Temperature:	2.6										NaOH+Ascorbic Acid: SACP	
Parameters															890-3793 Chain of Custody	

[illegible]

Total 200.7 / 6010	200.8 / 6020:	
8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zr	
TCPLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$55.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.


Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11-16-2010			
		1-10-23 202			

Revised Date: 08/25/2020 Row: 2020

Eurofins Carlsbad

1089 N Canal St.
Carlsbad NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



eurofins

Environement Testing

[illegible]

Eurofins Carlsbad

1089 N Canal St
Carlsbad, NM 88220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



eurofins

Environmental Testing

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3793-1

SDG Number: Lea County NM

Login Number: 3793

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3793-1

SDG Number: Lea County NM

Login Number: 3793

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 01/11/23 12:47 PM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum

601 N. Marienfeld St.
Suite 400

Midland, Texas 79701

Generated 1/16/2023 6:23:32 PM

JOB DESCRIPTION

EVGSAU SATELLITE 5
SDG NUMBER Lea County NM

JOB NUMBER

890-3792-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
1/16/2023 6:23:32 PM

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

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Laboratory Job ID: 890-3792-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Job ID: 890-3792-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3792-1

Receipt

The samples were received on 1/10/2023 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH02 (890-3792-1) and PH02 (890-3792-2).

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 sample was outside control limits: (MB 880-43869/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Client Sample ID: PH02

Lab Sample ID: 890-3792-1

Date Collected: 01/09/23 10:35

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 08:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 08:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 08:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 08:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 08:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 08:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	01/11/23 12:47	01/14/23 08:10	1
1,4-Difluorobenzene (Surr)	86		70 - 130	01/11/23 12:47	01/14/23 08:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/16/23 16:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/13/23 08:39	01/15/23 20:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/13/23 08:39	01/15/23 20:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/13/23 08:39	01/15/23 20:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	01/13/23 08:39	01/15/23 20:50	1
o-Terphenyl	108		70 - 130	01/13/23 08:39	01/15/23 20:50	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2320		24.9	mg/Kg			01/13/23 19:23	5

Client Sample ID: PH02

Lab Sample ID: 890-3792-2

Date Collected: 01/09/23 10:40

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 08:37	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 08:37	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 08:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 08:37	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/11/23 12:47	01/14/23 08:37	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/11/23 12:47	01/14/23 08:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	01/11/23 12:47	01/14/23 08:37	1

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Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Client Sample ID: PH02

Lab Sample ID: 890-3792-2

Date Collected: 01/09/23 10:40

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94		70 - 130	01/11/23 12:47	01/14/23 08:37	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/16/23 16:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/13/23 08:39	01/15/23 21:54	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/13/23 08:39	01/15/23 21:54	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/13/23 08:39	01/15/23 21:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130			01/13/23 08:39	01/15/23 21:54	1
o-Terphenyl	118		70 - 130			01/13/23 08:39	01/15/23 21:54	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	515		5.03	mg/Kg			01/13/23 19:39	1

Surrogate Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3791-A-1-A MS	Matrix Spike	116	95
890-3791-A-1-B MSD	Matrix Spike Duplicate	111	96
890-3792-1	PH02	91	86
890-3792-2	PH02	105	94
LCS 880-43735/1-A	Lab Control Sample	105	102
LCSD 880-43735/2-A	Lab Control Sample Dup	106	105
MB 880-43732/5-A	Method Blank	71	89
MB 880-43735/5-A	Method Blank	75	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3792-1	PH02	106	108
890-3792-1 MS	PH02	81	81
890-3792-1 MSD	PH02	97	82
890-3792-2	PH02	118	118
LCS 880-43869/2-A	Lab Control Sample	113	105
LCSD 880-43869/3-A	Lab Control Sample Dup	116	108
MB 880-43869/1-A	Method Blank	158 S1+	167 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43732

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/11/23 12:26	01/13/23 17:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/11/23 12:26	01/13/23 17:05	1

Lab Sample ID: MB 880-43735/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43735

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/11/23 12:47	01/14/23 06:48	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 06:48	1

Lab Sample ID: LCS 880-43735/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1102		mg/Kg		110	70 - 130
Toluene	0.100	0.09645		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09590		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09743		mg/Kg		97	70 - 130

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1207		mg/Kg		121	70 - 130	9	35

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	9	35
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2215		mg/Kg		111	70 - 130	11	35
o-Xylene	0.100	0.1083		mg/Kg		108	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3791-A-1-A MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1038		mg/Kg		103	70 - 130
Toluene	<0.00201	U	0.101	0.09117		mg/Kg		90	70 - 130
Ethylbenzene	<0.00201	U	0.101	0.08880		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1824		mg/Kg		90	70 - 130
o-Xylene	<0.00201	U	0.101	0.08945		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3791-A-1-B MSD

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08711		mg/Kg		88	70 - 130	17	35
Toluene	<0.00201	U	0.0990	0.07304		mg/Kg		74	70 - 130	22	35
Ethylbenzene	<0.00201	U	0.0990	0.07264		mg/Kg		73	70 - 130	20	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1486		mg/Kg		75	70 - 130	20	35
o-Xylene	<0.00201	U	0.0990	0.07570		mg/Kg		76	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-43869/1-A

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43869

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/13/23 08:39	01/15/23 19:47	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43869/1-A

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43869

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/13/23 08:39	01/15/23 19:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/13/23 08:39	01/15/23 19:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	158	S1+	70 - 130			01/13/23 08:39	01/15/23 19:47	1
o-Terphenyl	167	S1+	70 - 130			01/13/23 08:39	01/15/23 19:47	1

Lab Sample ID: LCS 880-43869/2-A

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43869

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	850.0		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	958.3		mg/Kg		96	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	113		70 - 130				
o-Terphenyl	105		70 - 130				

Lab Sample ID: LCSD 880-43869/3-A

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43869

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	969.8		mg/Kg		97	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	1000	903.3		mg/Kg		90	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	116		70 - 130						
o-Terphenyl	108		70 - 130						

Lab Sample ID: 890-3792-1 MS

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: PH02

Prep Type: Total/NA

Prep Batch: 43869

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	895.8		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	895.5		mg/Kg		87	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	81		70 - 130						
o-Terphenyl	81		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

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

Lab Sample ID: 890-3792-1 MSD

Matrix: Solid

Analysis Batch: 43945

Client Sample ID: PH02

Prep Type: Total/NA

Prep Batch: 43869

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	959.7		mg/Kg		93	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	917.4		mg/Kg		89	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	97		70 - 130								
o-Terphenyl	82		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43788/1-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/13/23 17:28	1

Lab Sample ID: LCS 880-43788/2-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.1		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-43788/3-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.7		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3791-A-1-D MS

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2210		1240	3493		mg/Kg		104	90 - 110

Lab Sample ID: 890-3791-A-1-E MSD

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2210		1240	3475		mg/Kg		102	90 - 110	1	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 43735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3792-1	PH02	Total/NA	Solid	5035	
890-3792-2	PH02	Total/NA	Solid	5035	
MB 880-43735/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3792-1	PH02	Total/NA	Solid	8021B	43735
890-3792-2	PH02	Total/NA	Solid	8021B	43735
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
MB 880-43735/5-A	Method Blank	Total/NA	Solid	8021B	43735
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	8021B	43735
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43735
890-3791-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43735
890-3791-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43735

Analysis Batch: 44095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3792-1	PH02	Total/NA	Solid	Total BTEX	
890-3792-2	PH02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 43869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3792-1	PH02	Total/NA	Solid	8015NM Prep	
890-3792-2	PH02	Total/NA	Solid	8015NM Prep	
MB 880-43869/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43869/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43869/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3792-1 MS	PH02	Total/NA	Solid	8015NM Prep	
890-3792-1 MSD	PH02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3792-1	PH02	Total/NA	Solid	8015B NM	43869
890-3792-2	PH02	Total/NA	Solid	8015B NM	43869
MB 880-43869/1-A	Method Blank	Total/NA	Solid	8015B NM	43869
LCS 880-43869/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43869
LCSD 880-43869/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43869
890-3792-1 MS	PH02	Total/NA	Solid	8015B NM	43869
890-3792-1 MSD	PH02	Total/NA	Solid	8015B NM	43869

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QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 44042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3792-1	PH02	Total/NA	Solid	8015 NM	
890-3792-2	PH02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3792-1	PH02	Soluble	Solid	DI Leach	
890-3792-2	PH02	Soluble	Solid	DI Leach	
MB 880-43788/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3792-1	PH02	Soluble	Solid	300.0	43788
890-3792-2	PH02	Soluble	Solid	300.0	43788
MB 880-43788/1-A	Method Blank	Soluble	Solid	300.0	43788
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	300.0	43788
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43788
890-3791-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	43788
890-3791-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43788

Lab Chronicle

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Client Sample ID: PH02
Date Collected: 01/09/23 10:35
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3792-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 08:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44095	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44042	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	43869	01/13/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 20:50	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		5			43922	01/13/23 19:23	CH	EET MID

Client Sample ID: PH02
Date Collected: 01/09/23 10:40
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3792-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 08:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44095	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44042	01/16/23 16:39	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	43869	01/13/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43945	01/15/23 21:54	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 19:39	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

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Method Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3792-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3792-1	PH02	Solid	01/09/23 10:35	01/10/23 09:05	3
890-3792-2	PH02	Solid	01/09/23 10:40	01/10/23 09:05	4

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Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3343
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 986-3199

Chain of Custody

Work Order No.: _____

www.xenco.com Page 1 of 2



Project Manager:	Hadlie Green	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

[illegible][illegible]

Total 200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Co 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.

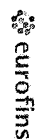
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		11.10.23			

Revised Date: 08/25/2020 Row: 2020

Eurofins Carlsbad

1089 N Canal St.
Carlsbad, NM 86220
Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environmental Testing

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3792-1

SDG Number: Lea County NM

Login Number: 3792

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3792-1

SDG Number: Lea County NM

Login Number: 3792

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 01/11/23 12:47 PM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum

601 N. Marienfeld St.
Suite 400

Midland, Texas 79701

Generated 1/16/2023 6:22:59 PM

JOB DESCRIPTION

EVGSAU SATELLITE 5
SDG NUMBER Lea County NM

JOB NUMBER

890-3791-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
1/16/2023 6:22:59 PM

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

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Laboratory Job ID: 890-3791-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Job ID: 890-3791-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3791-1****Receipt**

The samples were received on 1/10/2023 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH03 (890-3791-1) and PH03 (890-3791-2).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-43837 and analytical batch 880-43854 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-43837/2-A), (LCSD 880-43837/3-A) and (MB 880-43837/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Client Sample ID: PH03

Lab Sample ID: 890-3791-1

Date Collected: 01/09/23 12:35

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 07:15	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 07:15	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 07:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/11/23 12:47	01/14/23 07:15	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/11/23 12:47	01/14/23 07:15	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/11/23 12:47	01/14/23 07:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	01/11/23 12:47	01/14/23 07:15	1
1,4-Difluorobenzene (Surr)	92		70 - 130	01/11/23 12:47	01/14/23 07:15	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/14/23 04:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/14/23 04:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/14/23 04:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	01/12/23 15:11	01/14/23 04:38	1
o-Terphenyl	93		70 - 130	01/12/23 15:11	01/14/23 04:38	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2210		24.8	mg/Kg			01/13/23 19:01	5

Client Sample ID: PH03

Lab Sample ID: 890-3791-2

Date Collected: 01/09/23 12:50

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/11/23 12:47	01/14/23 07:43	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/11/23 12:47	01/14/23 07:43	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/11/23 12:47	01/14/23 07:43	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/11/23 12:47	01/14/23 07:43	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/11/23 12:47	01/14/23 07:43	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/11/23 12:47	01/14/23 07:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	01/11/23 12:47	01/14/23 07:43	1

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Client Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Client Sample ID: PH03

Lab Sample ID: 890-3791-2

Date Collected: 01/09/23 12:50

Matrix: Solid

Date Received: 01/10/23 09:05

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	01/11/23 12:47	01/14/23 07:43	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/16/23 16:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/14/23 05:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/14/23 05:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/14/23 05:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			01/12/23 15:11	01/14/23 05:00	1
o-Terphenyl	121		70 - 130			01/12/23 15:11	01/14/23 05:00	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	611		5.04	mg/Kg			01/13/23 19:17	1

Surrogate Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3791-1	PH03	101	92
890-3791-1 MS	PH03	116	95
890-3791-1 MSD	PH03	111	96
890-3791-2	PH03	101	88
LCS 880-43735/1-A	Lab Control Sample	105	102
LCSD 880-43735/2-A	Lab Control Sample Dup	106	105
MB 880-43732/5-A	Method Blank	71	89
MB 880-43735/5-A	Method Blank	75	90
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-23613-A-1-D MS	Matrix Spike	99	80
880-23613-A-1-E MSD	Matrix Spike Duplicate	83	75
890-3791-1	PH03	86	93
890-3791-2	PH03	115	121
LCS 880-43837/2-A	Lab Control Sample	138 S1+	124
LCSD 880-43837/3-A	Lab Control Sample Dup	140 S1+	130
MB 880-43837/1-A	Method Blank	186 S1+	164 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43732

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:26	01/13/23 17:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:26	01/13/23 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/11/23 12:26	01/13/23 17:05	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/11/23 12:26	01/13/23 17:05	1

Lab Sample ID: MB 880-43735/5-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43735

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/11/23 12:47	01/14/23 06:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/11/23 12:47	01/14/23 06:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/11/23 12:47	01/14/23 06:48	1
1,4-Difluorobenzene (Surr)	90		70 - 130	01/11/23 12:47	01/14/23 06:48	1

Lab Sample ID: LCS 880-43735/1-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1102		mg/Kg		110	70 - 130
Toluene	0.100	0.09645		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09590		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1983		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09743		mg/Kg		97	70 - 130

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1207		mg/Kg		121	70 - 130	9	35

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-43735/2-A

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	9	35
Ethylbenzene	0.100	0.1064		mg/Kg		106	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2215		mg/Kg		111	70 - 130	11	35
o-Xylene	0.100	0.1083		mg/Kg		108	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-3791-1 MS

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: PH03

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.1038		mg/Kg		103	70 - 130
Toluene	<0.00201	U	0.101	0.09117		mg/Kg		90	70 - 130
Ethylbenzene	<0.00201	U	0.101	0.08880		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1824		mg/Kg		90	70 - 130
o-Xylene	<0.00201	U	0.101	0.08945		mg/Kg		89	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 890-3791-1 MSD

Matrix: Solid

Analysis Batch: 43878

Client Sample ID: PH03

Prep Type: Total/NA

Prep Batch: 43735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08711		mg/Kg		88	70 - 130	17	35
Toluene	<0.00201	U	0.0990	0.07304		mg/Kg		74	70 - 130	22	35
Ethylbenzene	<0.00201	U	0.0990	0.07264		mg/Kg		73	70 - 130	20	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1486		mg/Kg		75	70 - 130	20	35
o-Xylene	<0.00201	U	0.0990	0.07570		mg/Kg		76	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-43837/1-A

Matrix: Solid

Analysis Batch: 43854

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43837

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/13/23 19:51	1

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43837/1-A

Matrix: Solid

Analysis Batch: 43854

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 43837

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/13/23 19:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/12/23 15:11	01/13/23 19:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	186	S1+	70 - 130			01/12/23 15:11	01/13/23 19:51	1
o-Terphenyl	164	S1+	70 - 130			01/12/23 15:11	01/13/23 19:51	1

Lab Sample ID: LCS 880-43837/2-A

Matrix: Solid

Analysis Batch: 43854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 43837

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1056		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1099		mg/Kg		110	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	138	S1+	70 - 130				
o-Terphenyl	124		70 - 130				

Lab Sample ID: LCSD 880-43837/3-A

Matrix: Solid

Analysis Batch: 43854

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 43837

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1032		mg/Kg		103	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	1039		mg/Kg		104	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	140	S1+	70 - 130						
o-Terphenyl	130		70 - 130						

Lab Sample ID: 880-23613-A-1-D MS

Matrix: Solid

Analysis Batch: 43854

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 43837

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	998	2514	F1	mg/Kg		248	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	994.6		mg/Kg		100	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	99		70 - 130						
o-Terphenyl	80		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

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

Lab Sample ID: 880-23613-A-1-E MSD

Matrix: Solid

Analysis Batch: 43854

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 43837

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	997	883.6	F2	mg/Kg		85	70 - 130	96	20
Diesel Range Organics (Over C10-C28)	<49.9	U	997	906.2		mg/Kg		91	70 - 130	9	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	83		70 - 130								
o-Terphenyl	75		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43788/1-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/13/23 17:28	1

Lab Sample ID: LCS 880-43788/2-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	256.1		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-43788/3-A

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.7		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3791-1 MS

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: PH03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2210		1240	3493		mg/Kg		104	90 - 110

Lab Sample ID: 890-3791-1 MSD

Matrix: Solid

Analysis Batch: 43922

Client Sample ID: PH03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2210		1240	3475		mg/Kg		102	90 - 110	1	20

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QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 43735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3791-1	PH03	Total/NA	Solid	5035	
890-3791-2	PH03	Total/NA	Solid	5035	
MB 880-43735/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3791-1 MS	PH03	Total/NA	Solid	5035	
890-3791-1 MSD	PH03	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3791-1	PH03	Total/NA	Solid	8021B	43735
890-3791-2	PH03	Total/NA	Solid	8021B	43735
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
MB 880-43735/5-A	Method Blank	Total/NA	Solid	8021B	43735
LCS 880-43735/1-A	Lab Control Sample	Total/NA	Solid	8021B	43735
LCSD 880-43735/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43735
890-3791-1 MS	PH03	Total/NA	Solid	8021B	43735
890-3791-1 MSD	PH03	Total/NA	Solid	8021B	43735

Analysis Batch: 44094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3791-1	PH03	Total/NA	Solid	Total BTEX	
890-3791-2	PH03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 43837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3791-1	PH03	Total/NA	Solid	8015NM Prep	
890-3791-2	PH03	Total/NA	Solid	8015NM Prep	
MB 880-43837/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43837/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43837/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-23613-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-23613-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3791-1	PH03	Total/NA	Solid	8015B NM	43837
890-3791-2	PH03	Total/NA	Solid	8015B NM	43837
MB 880-43837/1-A	Method Blank	Total/NA	Solid	8015B NM	43837
LCS 880-43837/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43837
LCSD 880-43837/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43837
880-23613-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	43837
880-23613-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43837

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 44032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3791-1	PH03	Total/NA	Solid	8015 NM	
890-3791-2	PH03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3791-1	PH03	Soluble	Solid	DI Leach	
890-3791-2	PH03	Soluble	Solid	DI Leach	
MB 880-43788/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3791-1 MS	PH03	Soluble	Solid	DI Leach	
890-3791-1 MSD	PH03	Soluble	Solid	DI Leach	

Analysis Batch: 43922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3791-1	PH03	Soluble	Solid	300.0	43788
890-3791-2	PH03	Soluble	Solid	300.0	43788
MB 880-43788/1-A	Method Blank	Soluble	Solid	300.0	43788
LCS 880-43788/2-A	Lab Control Sample	Soluble	Solid	300.0	43788
LCSD 880-43788/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43788
890-3791-1 MS	PH03	Soluble	Solid	300.0	43788
890-3791-1 MSD	PH03	Soluble	Solid	300.0	43788

Lab Chronicle

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Client Sample ID: PH03
Date Collected: 01/09/23 12:35
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3791-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 07:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44094	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44032	01/16/23 16:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43837	01/12/23 15:11	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43854	01/14/23 04:38	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		5			43922	01/13/23 19:01	CH	EET MID

Client Sample ID: PH03
Date Collected: 01/09/23 12:50
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3791-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	43735	01/11/23 12:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 07:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44094	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			44032	01/16/23 16:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43837	01/12/23 15:11	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43854	01/14/23 05:00	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	43788	01/12/23 09:17	KS	EET MID
Soluble	Analysis	300.0		1			43922	01/13/23 19:17	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

1
2
3
4
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12
13
14

Method Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

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

Protocol References:

- ASTM = ASTM International
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: EVGSAU SATELLITE 5

Job ID: 890-3791-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3791-1	PH03	Solid	01/09/23 12:35	01/10/23 09:05	3
890-3791-2	PH03	Solid	01/09/23 12:50	01/10/23 09:05	4

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
























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

Chain of Custody

Work Order No:

Page www.xenco.com

2	10	2
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Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfield St Suite 400	Address:	601 N Marientfield St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817.683.2503	Email:	kjennings@ensolum.com



Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADaBT <input type="checkbox"/> Other:	

Project Name:	EVGSAU Satellite 5	Turn Around		Pres. Code	ANALYSIS REQUEST										Preservative Codes		
Project Number:	C3D2057012	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush													None: NO	DI Water: H ₂ O
Project Location:	Lea County, NM	Due Date:														Cool: Cool	MeCH: Me
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm														HCL: HC	HNO ₃ : HN
PO #:																H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT		Temp Blank:	Yes No	Well Ice:	Yes No											H ₃ PO ₄ : HP	
Samples Received Intact:	Yes No	Thermometer ID:														NaHSO ₄ : NABIS	
Cooler Custody Seals:	Yes No	N/A	Correction Factor:													Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:	Yes No	N/A	Temperature Reading:													Zn Acetate+NaOH: Zn	
Total Containers:		Corrected Temperature:														NaOH+Ascorbic Acid: SAPC	

[illegible]

Total	200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zr
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 \$65.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		11.0.20 905	2		
3		1.10.23 OK	4		
5			6		

Revised Date 08/25/2020 Rev. 20/20

Eurofins Carlsbad

1089 N Canal St.

Carlsbad NM 88220

Phone: 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



eurofins

Environment Testing

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3791-1

SDG Number: Lea County NM

Login Number: 3791

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3791-1

SDG Number: Lea County NM

Login Number: 3791

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 01/11/23 12:47 PM

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



APPENDIX D

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	NAPP2213957732
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	ConocoPhillips	OGRID	217817
Contact Name	Charles Beauvais	Contact Telephone	(575) 988-2043
Contact email	Charles.R.Beauvais@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2213957732
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.806667 Longitude -103.431389
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	EVGSAU Satellite 5	Site Type	Tank Battery
Date Release Discovered	May 5, 2022	API# (if applicable)	

Unit Letter	Section	Township	Range	County
F	26	17S	35E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	0.9	Volume Recovered (bbls)	0
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls)	17.4	Volume Recovered (bbls)	2
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)		Volume/Weight Recovered (provide units)	

Cause of Release

The release was caused by a leaking transfer pump.


State of New Mexico
Oil Conservation Division

Incident ID	NAPP2213957732
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? 	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name Brittany N. Esparza	Title: Environmental Technician
Signature: 	Date: 5/19/2022
email: Brittany.Esparza@ConocoPhillips.com	Telephone: (432) 221-0398
<u>OCD Only</u> Received by: _____ Date: _____	

L48 Spill Volume Estimate Form

Received by OCD: 5/19/2022 4:05:30 PM		EVGSAU SATELLITE 5		NAPP2213957732		Page 3 of 4			
Asset Area: SENM (Buckeye)		Release Discovery Date & Time: 5/5/2022							
Release Type: Oil Mixture									
Provide any known details about the event:		COMING INTO WORK MY ROUTE PARTNER SMELLED OIL AND DROVE BY SATELLITE 5 AND FOUND TRANSFER PUMP LEAKING - RECOVERED 2 BBL'S.							
		Spill Calculation - Subsurface Spill - Rectangle							
		On Pad - 10.5%; Off Pad - 13.57% soil spilled-fluid saturation factor							
Has it rained at least a half inch in the last 24 hours?		Yes, On Pad - 8%; Off Pad - 15.12% soil spilled-fluid saturation factor; if No, use factors above.							
Convert Irregular shape to a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	25.0	50.0	2.00	10.50%	37.083	3.894	5.00%	0.195	3.699
Rectangle B	50.0	40.0	3.00	13.50%	106.800	14.418	5.00%	0.721	13.697
Rectangle C					0.000	0.000		0.000	0.000
Rectangle D					0.000	0.000		0.000	0.000
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
Released to Imaging: 5/19/2022 4:34:15 PM					Total Volume Release:	18.312		0.916	17.396

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

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

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

CONDITIONS

Action 108869

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 108869
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	5/19/2022

Incident ID	NAPP2213957732
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u><50</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

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Incident ID	NAPP2213957732
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: HSE Specialist

Signature:

Date: 2/27/2023

email: bryce.wagoner@mavresources.com

Telephone: 928-241-1862

OCD Only

Received by: _____

Date: _____

Incident ID	NAPP2213957732
District RP	
Facility ID	
Application ID	

Remediation Plan

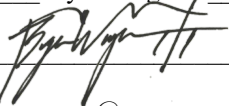
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.


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
Signature:  Date: 02/27/2023
email: bryce.wagoner@mavresources.com Telephone: 928-241-1862

OCD Only

Received by: _____ Date: _____

☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature:  Date: 03/07/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

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

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

CONDITIONS

Action 190511

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 190511
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved.	3/7/2023