



September 19, 2023

New Mexico Oil Conservation Division

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

**Re: Closure Request
East Vacuum Unit 1904-001
Incident Number NAPP2210950771
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* as a follow-up to the *Remediation Work Plan* submitted to NMOCD on October 31, 2022, and approved by NMOCD on January 24, 2023. This *Closure Request* documents site assessment, excavation, and soil sampling activities performed at the East Vacuum Unit 1904-001 (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a crude oil and produced water release at the Site. Based on the laboratory analytical results from the soil sampling events and the additional groundwater determination activities completed as outlined in the approved *Remediation Work Plan*, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2210950771.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit N, Section 19, Township 17 South, Range 35 East, in Lea County, New Mexico (32.81388° N, -103.49916° W) and is associated with oil and gas exploration and production operations on State Land managed by the New Mexico State Land Office (NMSLO).

On April 6, 2022, a stuffing box leak resulted in the release of approximately 0.07 barrels (bbls) of crude oil and 7.13 bbls of produced water onto the well pad. No free-standing fluids were recovered. The previous operator, COG Operating, LLC, reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on April 19, 2022. The release was assigned Incident Number NAPP2210950771.

Since the release remained on the active well pad, an assessment of cultural properties had already been completed prior to the construction of the well pad and as such, the Cultural Properties Protection Rule (CPP) has been followed. No additional cultural resource surveys were completed in connection with this release. The release area is not expected to be reclaimed until the oil and gas well is plugged and abandoned and the well pad is reclaimed. The Reclamation Plan for this release will default to the NMSLO-approved Reclamation Plan for the well pad per 19.2.100.67 of the New Mexico Administrative Code (NMAC). Additionally, remediation of the release was completed prior to December 1, 2022.

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SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

As outlined in the approved *Remediation Work Plan*, Maverick proceeded with the installation of a soil boring for determination of groundwater depth and confirmation of the Closure Criteria applied to the Site. During August 2023, a borehole (BH01) was advanced to a depth of 57 feet bgs via hollow stem auger drilling rig. The borehole was located approximately 0.4 miles west of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The borehole lithologic log is included in Appendix A. No groundwater was encountered in the borehole to a depth of 57 feet bgs. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater is greater than 57 feet bgs. The borehole was properly abandoned using hydrated bentonite chips. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 965 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is not within a 100-year floodplain or overlying a subsurface mine. The Site is greater than 1,000 feet to a freshwater well or spring. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 10,000 mg/kg

INITIAL SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On June 28 and September 6, 2022, Site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Five assessment soil samples (SS01 through SS05) were collected within the release extent at a depth of 0.5 feet bgs, to assess surficial soils within the release. Additionally, four assessment soil samples (SS06 through SS09) were collected around the release extent at a depth of 0.5 feet bgs, to confirm the lateral extent of the release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The visible release extent and assessment soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH- GRO, TPH- DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for assessment soil samples SS01 through SS04, collected within the release extent, indicated TPH-GRO/TPH-DRO and/or TPH concentrations exceeded the Site Closure Criteria. Laboratory analytical results for assessment soil samples SS05 through SS09 indicated all COC concentrations were compliant with the Site Closure Criteria and defined the lateral extent of the release. Based on visible staining in the release area and laboratory analytical results for assessment soil samples SS01 through SS04, delineation and excavation activities were warranted.

DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

On September 6, 2022, Ensolum personnel were at the Site to oversee delineation activities. Potholes PH01 through PH05 were advanced via backhoe within the release extent to assess the vertical extent of impacted soil. The potholes were advanced to a depth of 2 feet bgs. Delineation soil samples were collected from each pothole at depths of 1-foot and 2 feet bgs. Soil from the potholes was field screened for VOCs and chloride. Field screening results and observations for the potholes were logged on lithologic soil sampling logs, which are included in Appendix B. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix C.

Laboratory analytical results for delineation soil samples collected from pothole PH03 indicated TPH-GRO/TPH-DRO and/or TPH concentrations exceeded the Site Closure Criteria at depths ranging from 1-foot to 2 feet bgs. Laboratory analytical results for delineation soil samples collected from potholes PH01, PH02, PH04 and PH05 indicated that all COC concentrations were compliant with the Closure Criteria. The delineation soil sample locations are depicted on Figure 3.

EXCAVATION ACTIVITIES AND ANALYTICAL RESULTS

On September 6, 2022, impacted soil was excavated from the release as indicated by visible staining and field screening results for the delineation soil samples. Excavation activities were performed using a track-mounted backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was initially completed to depths ranging from 0.5 feet to 1-foot bgs. Photographic documentation of the excavation activities is included in Appendix C.

Following removal of the impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS10 were collected from the floor of the excavation at depths ranging from 0.5 feet to 1-foot bgs. Due to the shallow depth of the excavation, soil from the sidewalls was incorporated into the floor samples. The excavation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 4.

Laboratory analytical results for excavation soil samples FS08, FS09, and FS10 indicated TPH concentrations exceeded the Site Closure Criteria and additional excavation activities were warranted.

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Ensolum personnel returned to the Site on September 30, 2022, to oversee additional excavation activities based on laboratory analytical results for the initial excavation soil samples. Additional soil was removed from the area around floor samples FS08, FS09, and FS10, which also incorporated pothole PH03. Subsequent soil samples FS08A, FS09A, and FS10A were collected from the floor of the excavation at a depth of 2.5 feet bgs and composite soil samples SW01 and SW02 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 2.5 feet bgs.

Laboratory analytical results for excavation soil samples FS01 through FS07, FS08A, FS09A, FS10A, SW01, and SW02, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results are provided on Table 1 and laboratory analytical reports are included as Appendix D.

ADDITIONAL ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

As outlined in the approved *Remediation Work Plan*, additional assessment soil samples were collected around the release extent to define the lateral extent of the release to below the most stringent Table I Closure Criteria. During March 2023, additional assessment soil samples SS01 through SS06 were collected around the release extent at a depth of 0.25 feet bgs, to confirm the lateral extent of the release. The assessment soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 2.

Laboratory analytical results for assessment soil samples SS01 through SS06 indicated all COC concentrations were compliant with the Site Closure Criteria and defined the lateral extent of the release to below the most stringent Table I Closure Criteria.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the April 6, 2022, crude oil and produced water release. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria. Based on excavation and delineation soil sample analytical results and the additional assessment and depth to groundwater determination activities completed as outlined in the approved *Remediation Work Plan*, no further remediation is required. Maverick backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions.

Excavation of impacted soil has mitigated impacts at this Site. Based on the excavation soil sample analytical results compliant with the Site Closure Criteria and confirmed depth to groundwater greater than 57 feet bgs within 0.5 miles of the Site, Maverick respectfully requests closure for Incident Number NAPP2210950771. Maverick believes the remedial actions completed are protective of human health, the environment, and groundwater. The NMOCD notifications are provided in Appendix E and the Final C-141 is included in Appendix F.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

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Sincerely,
Ensolum, LLC

A handwritten signature in black ink, appearing to read 'Julianna Falcomata'.

Julianna Falcomata
Staff Geologist

A handwritten signature in black ink, appearing to read 'Aimee Cole'.

Aimee Cole
Senior Managing Scientist

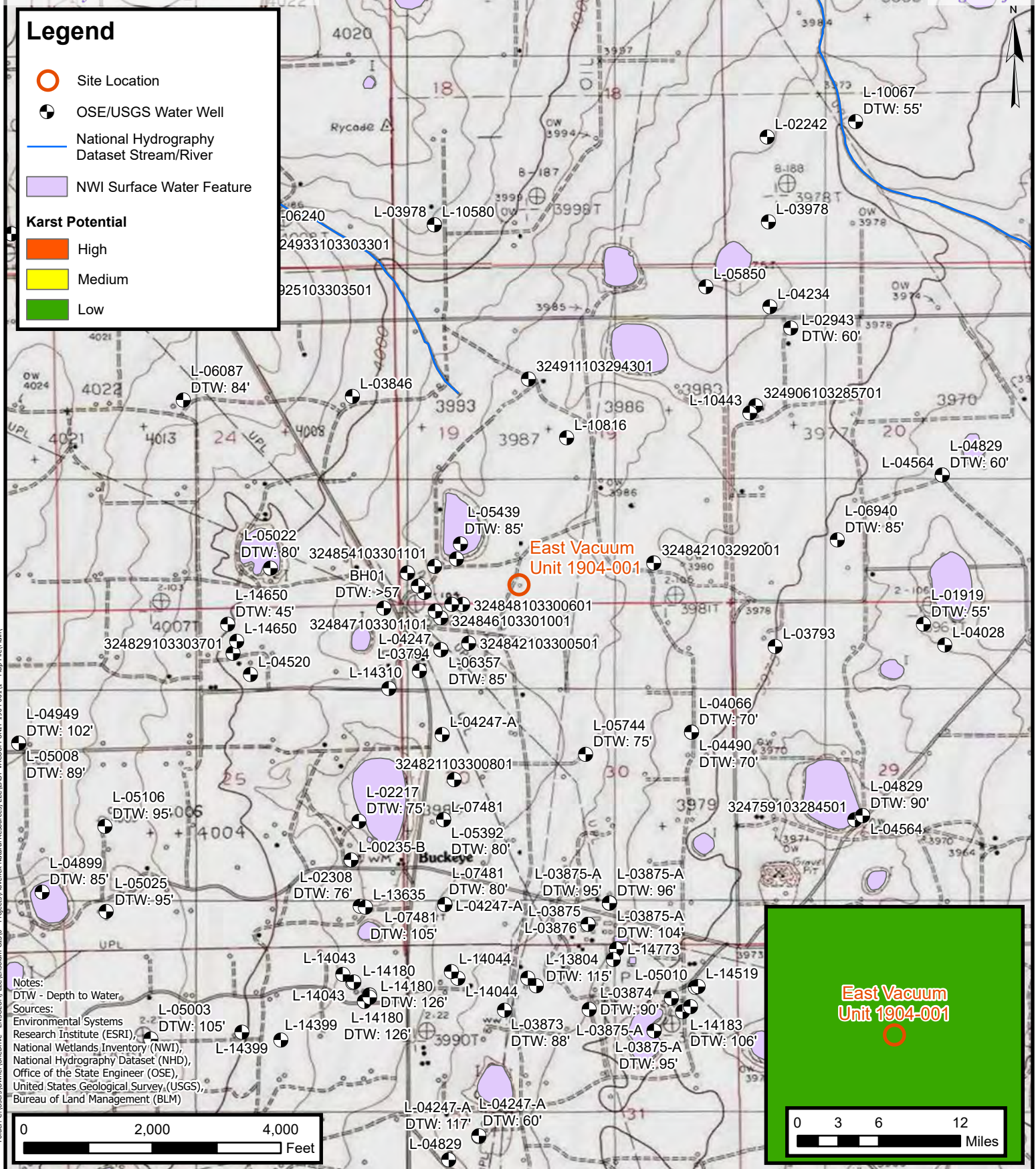
cc: Bryce Wagoner, Maverick Natural Resources
New Mexico State Land Office

Appendices:

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

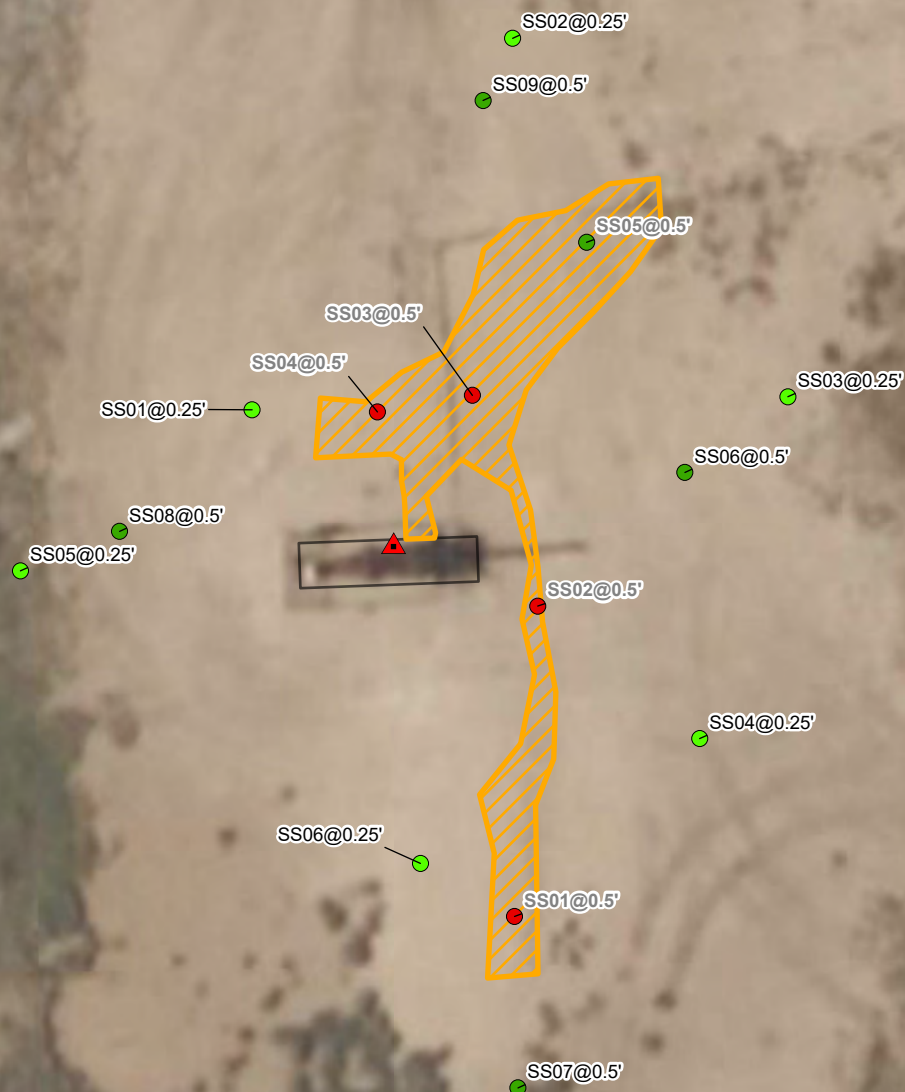


FIGURES



Legend

- Initial Assessment
Sample in Compliance
with Closure Criteria
- Additional Assessment
Sample in Compliance
with Closure Criteria
- Initial Assessment
Sample with
Concentrations
Exceeding Closure
Criteria
- ▲ Point of Release (POR)
- ▨ Release Extent
- ▭ Infrastructure

**Notes:**

Sample ID @ Depth Below Ground Surface.
 Samples in bold indicate sample exceeded applicable
 closure criteria.
 Grey text indicate soil sample was removed during
 excavation activities.

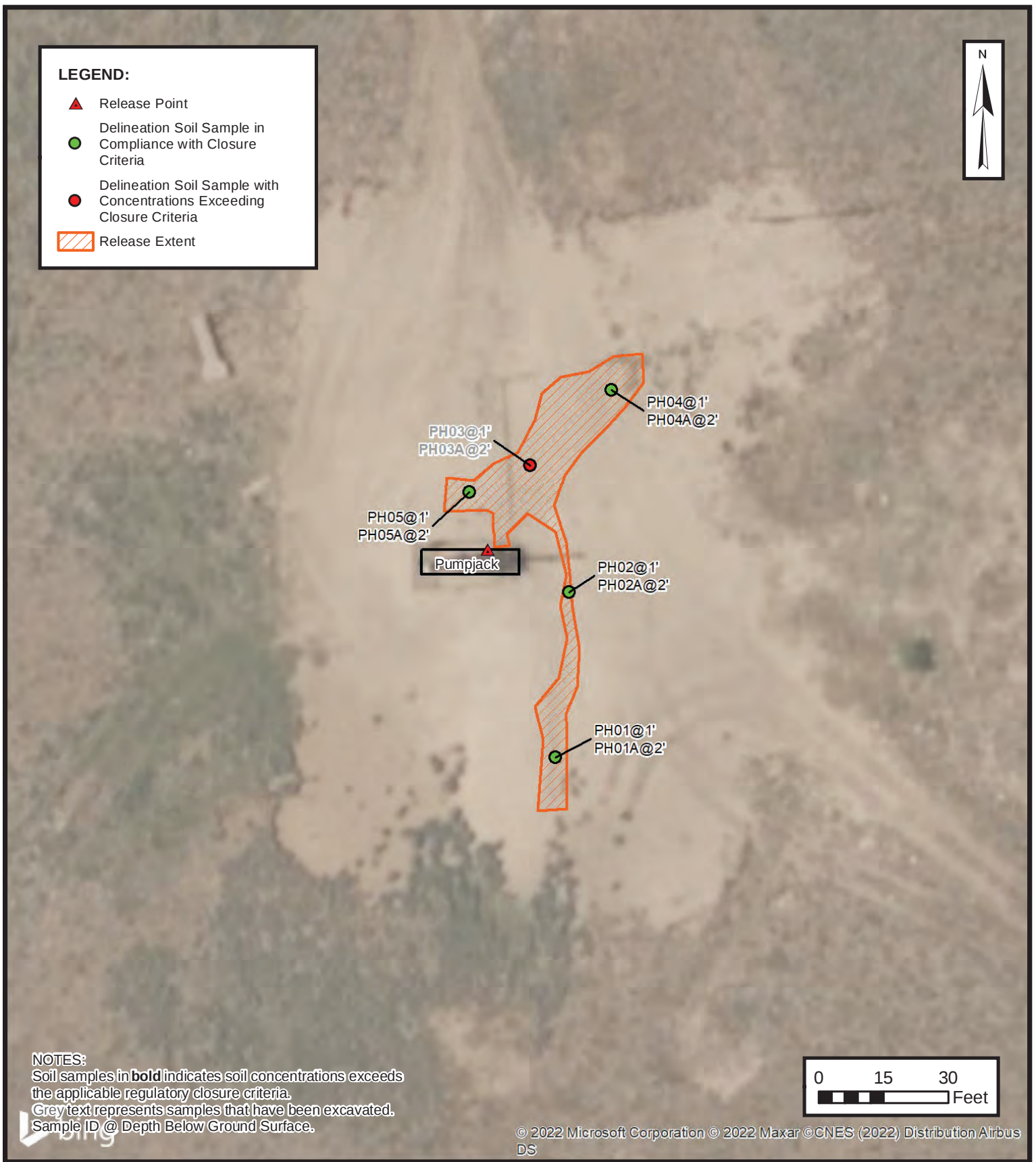
0 5 10 20 30 40
 Feet

Sources: Environmental Systems Research Institute (ESRI)

**Assessment Soil Sample Locations**

MAVERICK NATURAL RESOURCES, LLC
 EAST VACUUM UNIT 1904-001
 Incident Number: NAPP2210950771
 Unit N, Sec 19, T17S, R35E
 Lea County, New Mexico

FIGURE**2**



DELINEATION SOIL SAMPLE LOCATIONS

MAVERICK NATURAL RESOURCES, LLC
 EAST VACUUM UNIT 1904-001
 NAPP2210950771
 Unit N, Sec 19, T17S, R35E
 Lea County, New Mexico

FIGURE

3





EXCAVATION SOIL SAMPLE LOCATIONS

MAVERICK NATURAL RESOURCES, LLC
 EAST VACUUM UNIT 1904-001

NAPP2210950771
 Unit N, Sec 19, T17S, R35E
 Lea County, New Mexico

FIGURE

4



TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 East Vacuum Unit 1904-001
 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 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Initial Assessment Soil Samples										
SS01	6/28/2022	0.5	<0.00200	0.0196	<49.9	3,030	<49.9	3,030	3,030	2,010
SS02	06/28/2022	0.5	<0.0496	0.887	<250	1,940	<250	1,940	1,940	3,110
SS03	06/28/2022	0.5	0.141	17.5	674	29,700	<499	30,374	30,400	233
SS04	06/28/2022	0.5	<0.00200	0.0205	<249	4,280	<249	4,280	4,280	4,200
SS05	06/28/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	37.7
SS06	06/28/2022	0.5	<0.00202	0.0216	<49.9	242	<49.9	242	242	22.2
SS07	06/28/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	63.2
SS08	06/28/2022	0.5	<0.00200	0.0387	<50.0	214	<50.0	214	214	47.8
SS09	09/06/2022	0.5	<0.00201	<0.00402	<49.9	191	102	191	293	57.2
Additional Assessment Soil Samples										
SS01	03/16/2023	0.25	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	44.0
SS02	03/16/2023	0.25	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	38.9
SS03	03/16/2023	0.25	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	49.6
SS04	03/16/2023	0.25	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	77.1
SS05	03/16/2023	0.25	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	48.8
SS06	03/16/2023	0.25	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	52.3
Delineation Soil Samples										
PH01	09/06/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	56.0
PH01A	09/06/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	382
PH02	09/06/2022	1	<0.00201	<0.00402	<50.0	245	127	245	372	743
PH02A	09/06/2022	2	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	849
PH03	09/06/2022	1	<0.00202	<0.00404	<249	4,130	917	4,130	5,050	223
PH03A	09/06/2022	2	<0.00200	<0.00399	<49.9	1,520	333	1,520	1,850	298
PH04	09/06/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,250
PH04A	09/06/2022	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	2,890

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 East Vacuum Unit 1904-001
 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 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
PH05	09/06/2022	1	<0.00200	<0.00401	<49.9	118	65.9	118	184	47.1
PH05A	09/06/2022	2	<0.00200	<0.00399	<50.0	580	344	580	924	134
Excavation Floor Samples										
FS01	09/06/2022	1	<0.00202	<0.00403	<49.9	83.3	<49.9	83.3	83.3	613
FS02	09/06/2022	1	<0.00200	<0.00399	<50.0	108	50.5	108	159	1,430
FS03	09/06/2022	1	<0.00199	<0.00398	<49.9	368	161	368	529	1,120
FS04	09/06/2022	1	<0.00200	<0.00401	<49.9	310	145	310	455	1,020
FS05	09/06/2022	1	<0.00201	<0.00402	<49.9	370	164	370	534	764
FS06	09/06/2022	1	<0.00200	<0.00399	<50.0	364	109	364	473	841
FS07	09/06/2022	0.5	<0.00199	<0.00398	<49.8	999	254	999	1,250	1,270
FS08	09/06/2022	0.5	<0.00200	<0.00399	<50.0	1,000	282	1,000	1,280	869
FS08A	09/30/2022	2.5	<0.00198	<0.00396	<50.0	59.7	212	59.7	272	420
FS09	09/06/2022	1	<0.00199	<0.00398	<50.0	2,700	598	2,700	3,300	1,420
FS09A	09/30/2022	2.5	<0.00201	<0.00402	<49.9	<49.9	142	<49.9	142	225
FS10	09/06/2022	1	<0.00199	0.0166	78.5	6,690	<50.0	6,769	6,770	2,330
FS10A	09/30/2022	2.5	<0.00200	<0.00399	<50.0	114	307	114	421	1,040
Excavation Sidewall Samples										
SW01	09/30/2022	0 - 2.5	<0.00199	<0.00398	<49.9	223	560	223	783	1,220
SW02	09/30/2022	0 - 2.5	<0.00201	<0.00402	<50.0	84.1	225	84.1	309	227

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

TPH: Total Petroleum Hydrocarbon

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

Concentrations in **bold** exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

Grey text represents samples that have been excavated



APPENDIX A

Referenced Well Records

							Sample Name: BH01		Date: 08/29/2023	
							Site Name: East Vacuum Unit 1904-001			
							Incident Number: NAPP2210950771			
							Job Number: 03D2057008			
LITHOLOGIC / SOIL SAMPLING LOG							Logged By: Julianna Falcomata		Method: Hollow Stem	
Coordinates: 32.813461, -103.506187							Hole Diameter: 5"		Total Depth: 57'	
Comments: Soil boring was advanced to a total depth of 55' bgs. No water was observed within the soil boring after at least 72 hours. The soil boring was plugged and abandoned using hydrated bentonite chips.										
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
Dry	-	-	N	-	-	10	GP-GM	(10') GRAVEL: medium grained, trace amounts fine grained sand, poorly graded, medium brown to reddish brown, no odor, non plastic, non		
Dry	-	-	N	-	-	20	SP-SM	(20') SAND: fine grained, moderate amounts of medium grained gravel, poorly graded, tan to light brown, no odor, non plastic, non cohesive.		
Dry	-	-	N	-	-	30	SP-SM	(30') SAND: fine grained, trace amounts of medium grained gravel, poorly graded, tan, no odor, non plastic, non cohesive.		
Dry	-	-	N	-	-	40	SP-SM	(40') SAND: fine grained, poorly graded, tan, no odor, non plastic, non cohesive.		
Dry	-	-	N	-	-	50	SP-SM	(50') SAND: SAA		
Dry	-	-	N	-	-	57	SP-SM	(57') SAND: SAA		
Total Depth @ 57' bgs.										



New Mexico Office of the State Engineer Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	05439	2	3	3	19	17S	35E	640212	3631888* 
Driller License: 46		Driller Company:		ABBOTT BROTHERS COMPANY					
Driller Name: ABBOTT, MURRELL									
Drill Start Date:	07/25/1964	Drill Finish Date:		07/25/1964		Plug Date:		01/15/1965	
Log File Date:	08/06/1964	PCW Rcv Date:				Source:		Shallow	
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size:	7.00	Depth Well:		135 feet		Depth Water:		85 feet	
Water Bearing Stratifications:		Top	Bottom	Description					
		85	135	Other/Unknown					
Casing Perforations:		Top	Bottom						
		85	135						

*UTM location was derived from PLSS - see Help

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

6/21/22 2:53 PM

POINT OF DIVERSION SUMMARY

US 324657103292801 17S.35E.31.43411

Lee County, New Mexico
Latitude 32°47'08", Longitude 103°29'38" NAD27
Land surface elevation 3,968.00 feet above NGVD29
The depth of the well is 146 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHLN) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

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

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1961-02-16			D	62610		3904.08	NGVD29	1	Z		A
1961-02-16			D	62611		3905.59	NAVD88	1	Z		A
1961-02-16			D	72019	63.92			1	Z		A
1966-03-17			D	62610		3902.37	NGVD29	1	Z		A
1966-03-17			D	62611		3903.88	NAVD88	1	Z		A
1966-03-17			D	72019	65.63			1	Z		A
1971-02-12			D	62610		3900.62	NGVD29	1	Z		A
1971-02-12			D	62611		3902.13	NAVD88	1	Z		A
1971-02-12			D	72019	67.38			1	Z		A
1976-03-04			D	62610		3896.88	NGVD29	1	Z		A
1976-03-04			D	62611		3898.39	NAVD88	1	Z		A
1976-03-04			D	72019	71.12			1	Z		A
1981-01-20			D	62610		3885.73	NGVD29	1	Z		A
1981-01-20			D	62611		3887.24	NAVD88	1	Z		A
1981-01-20			D	72019	82.27			1	Z		A
1981-06-17			D	62610		3884.75	NGVD29	1	Z		A
1981-06-17			D	62611		3886.26	NAVD88	1	Z		A
1981-06-17			D	72019	83.25			1	Z		A
1986-04-04			D	62610		3876.11	NGVD29	1	Z		A
1986-04-04			D	62611		3877.62	NAVD88	1	Z		A
1986-04-04			D	72019	91.89			1	Z		A
1991-01-15			D	62610		3872.99	NGVD29	1	Z		A
1991-01-15			D	62611		3874.50	NAVD88	1	Z		A
1991-01-15			D	72019	95.01			1	Z		A



APPENDIX B

Lithologic Soil Sampling Logs

								Sample Name: PH01		Date: 9/6/2022	
								Site Name: East Vacuum Unit 1904-001			
								Incident Number: NAPP2210950771			
								Job Number: 03D2057008			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: LC		Method: Backhoe	
Coordinates: 32.814120, -103.499240								Hole Diameter: N/A		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					
M	414.4	0.5	N	PH01	1	1	SM	SILTY SAND, brown, fine grain, no stain, no odor, moist.			
M	520	0.6	N	PH01A	2	2	SM	SAA			
TD @ 2 feet bgs											

 ENSOLUM		Sample Name: PH02		Date: 9/6/2022				
		Site Name: East Vacuum Unit 1904-001						
		Incident Number: NAPP2210950771						
		Job Number: 03D2057008						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.814236, -103.499228			Logged By: LC		Method: Backhoe			
			Hole Diameter: N/A		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		
M/W	324	1.2	N	PH02	1	1	SM	SILTY SAND, brown, fine grain, no stain, no odor, moist to wet.
M	638	1.0	N	PH02A	2	2	SM	SAA, moist.
TD @ 2 feet bgs								

 ENSOLUM		Sample Name: PH03		Date: 9/6/2022				
		Site Name: East Vacuum Unit 1904-001						
		Incident Number: NAPP2210950771						
		Job Number: 03D2057008						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.814323, -103.499256			Logged By: LC		Method: Backhoe			
			Hole Diameter: N/A		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		
M	168	3.3	Y	PH03	1	1	SM	SILTY SAND, brown and tan with caliche gravel, HC odor, staining, moist.
M	280	31.6	Y	PH03A	2	2	SM	SAA
TD @ 2 feet bgs								

								Sample Name: PH04		Date: 9/6/2022	
								Site Name: East Vacuum Unit 1904-001			
								Incident Number: NAPP2210950771			
								Job Number: 03D2057008			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: LC		Method: Backhoe	
Coordinates: 32.814385, -103.499175								Hole Diameter: N/A		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					
M	3,516	0.2	N	PH04	1	1	SM	SILTY SAND, brown and tan with caliche gravel, no stain, no odor, moist.			
M	845	1.4	N	PH04A	2	2	SM	SAA			
TD @ 2 feet bgs											

								Sample Name: PH05		Date: 9/6/2022	
								Site Name: East Vacuum Unit 1904-001			
								Incident Number: NAPP2210950771			
								Job Number: 03D2057008			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: LC		Method: Backhoe	
Coordinates: 32.814385, -103.499175								Hole Diameter: N/A		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					
M	3,516	0.2	N	PH05	1	1	SM	SILTY SAND, brown and tan with caliche gravel, no stain, no odor, moist.			
M	845	1.4	N	PH05A	2	2	SM	SAA			
TD @ 2 feet bgs											



APPENDIX C

Photographic Log

**Photographic Log**

Maverick Natural Resources, LLC
East Vacuum Unit 1904-001
NAPP2210950771



Photograph: 1 Date: 9/6/2022
Description: Soil staining in release footprint
View: Northwest



Photograph: 2 Date: 9/6/2022
Description: Delineation activities
View: Southwest



Photograph: 3 Date: 9/30/2022
Description: Excavation activities
View: Southeast



Photograph: 4 Date: 9/30/2022
Description: Excavation activities
View: Southwest



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2484-1

Laboratory Sample Delivery Group: 03D2057008
Client Project/Site: East Vaccum Unit 904-001

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

Authorized for release by:

7/11/2022 11:08:08 AM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Laboratory Job ID: 890-2484-1
SDG: 03D2057008

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Definitions/Glossary

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Job ID: 890-2484-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-2484-1****Receipt**

The samples were received on 6/30/2022 12:58 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS03 (890-2484-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-29220 and analytical batch 880-29366 recovered outside control limits for the following analytes: Ethylbenzene, m-Xylene & p-Xylene, o-Xylene and Xylenes, Total.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-29220 and analytical batch 880-29366 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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 880-28892 and analytical batch 880-28975 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-2484-1), SS03 (890-2484-3), SS04 (890-2484-4), SS05 (890-2484-5), SS06 (890-2484-6), SS07 (890-2484-7), SS08 (890-2484-8) and (MB 880-28892/1-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 880-28849 and analytical batch 880-29315 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: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS01

Lab Sample ID: 890-2484-1

Date Collected: 06/28/22 11:10

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:16	1
Toluene	0.00478	F1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:16	1
Ethylbenzene	0.00413	F1 *1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:16	1
m-Xylene & p-Xylene	0.00846	F1 *1	0.00399	mg/Kg		07/07/22 15:17	07/10/22 19:16	1
o-Xylene	0.00218	F1 *1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:16	1
Xylenes, Total	0.0106	F1 *1	0.00399	mg/Kg		07/07/22 15:17	07/10/22 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	07/07/22 15:17	07/10/22 19:16	1
1,4-Difluorobenzene (Surr)	105		70 - 130	07/07/22 15:17	07/10/22 19:16	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0196		0.00399	mg/Kg			07/11/22 08:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3030		49.9	mg/Kg			07/05/22 13:34	1

Method: 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 F1	49.9	mg/Kg		07/01/22 15:11	07/04/22 17:44	1
Diesel Range Organics (Over C10-C28)	3030	F1	49.9	mg/Kg		07/01/22 15:11	07/04/22 17:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/01/22 15:11	07/04/22 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130	07/01/22 15:11	07/04/22 17:44	1
o-Terphenyl	150	S1+	70 - 130	07/01/22 15:11	07/04/22 17:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2010	F1	24.8	mg/Kg			07/11/22 02:37	5

Client Sample ID: SS02

Lab Sample ID: 890-2484-2

Date Collected: 06/28/22 11:15

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0496	U	0.0496	mg/Kg		07/07/22 15:17	07/10/22 22:00	25
Toluene	0.221		0.0496	mg/Kg		07/07/22 15:17	07/10/22 22:00	25
Ethylbenzene	0.241	*1	0.0496	mg/Kg		07/07/22 15:17	07/10/22 22:00	25
m-Xylene & p-Xylene	0.316	*1	0.0992	mg/Kg		07/07/22 15:17	07/10/22 22:00	25
o-Xylene	0.109	*1	0.0496	mg/Kg		07/07/22 15:17	07/10/22 22:00	25
Xylenes, Total	0.425	*1	0.0992	mg/Kg		07/07/22 15:17	07/10/22 22:00	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	07/07/22 15:17	07/10/22 22:00	25

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS02

Lab Sample ID: 890-2484-2

Date Collected: 06/28/22 11:15

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	96		70 - 130	07/07/22 15:17	07/10/22 22:00	25

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.887		0.0992	mg/Kg			07/11/22 08:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1940		250	mg/Kg			07/05/22 13:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250	mg/Kg		07/01/22 15:11	07/04/22 18:28	5
Diesel Range Organics (Over C10-C28)	1940		250	mg/Kg		07/01/22 15:11	07/04/22 18:28	5
Oil Range Organics (Over C28-C36)	<250	U	250	mg/Kg		07/01/22 15:11	07/04/22 18:28	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			07/01/22 15:11	07/04/22 18:28	5
o-Terphenyl	109		70 - 130			07/01/22 15:11	07/04/22 18:28	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3110		50.5	mg/Kg			07/11/22 03:04	10

Client Sample ID: SS03

Lab Sample ID: 890-2484-3

Date Collected: 06/28/22 11:20

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.141		0.0994	mg/Kg		07/07/22 15:17	07/10/22 22:21	50
Toluene	2.86		0.0994	mg/Kg		07/07/22 15:17	07/10/22 22:21	50
Ethylbenzene	5.56	*1	0.0994	mg/Kg		07/07/22 15:17	07/10/22 22:21	50
m-Xylene & p-Xylene	6.23	*1	0.199	mg/Kg		07/07/22 15:17	07/10/22 22:21	50
o-Xylene	2.73	*1	0.0994	mg/Kg		07/07/22 15:17	07/10/22 22:21	50
Xylenes, Total	8.96	*1	0.199	mg/Kg		07/07/22 15:17	07/10/22 22:21	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130	07/07/22 15:17	07/10/22 22:21	50
1,4-Difluorobenzene (Surr)	96		70 - 130	07/07/22 15:17	07/10/22 22:21	50

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	17.5		0.199	mg/Kg			07/11/22 08:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	30400		499	mg/Kg			07/05/22 13:34	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS03

Lab Sample ID: 890-2484-3

Date Collected: 06/28/22 11:20

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	674		499	mg/Kg		07/01/22 15:11	07/04/22 18:49	10
Diesel Range Organics (Over C10-C28)	29700		499	mg/Kg		07/01/22 15:11	07/04/22 18:49	10
OII Range Organics (Over C28-C36)	<499	U	499	mg/Kg		07/01/22 15:11	07/04/22 18:49	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130			07/01/22 15:11	07/04/22 18:49	10
o-Terphenyl	175	S1+	70 - 130			07/01/22 15:11	07/04/22 18:49	10

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	233		4.99	mg/Kg			07/11/22 03:13	1

Client Sample ID: SS04

Lab Sample ID: 890-2484-4

Date Collected: 06/28/22 11:25

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:37	1
Toluene	0.00501		0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:37	1
Ethylbenzene	0.00463	*1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:37	1
m-Xylene & p-Xylene	0.00770	*1	0.00400	mg/Kg		07/07/22 15:17	07/10/22 19:37	1
o-Xylene	0.00315	*1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:37	1
Xylenes, Total	0.0109	*1	0.00400	mg/Kg		07/07/22 15:17	07/10/22 19:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			07/07/22 15:17	07/10/22 19:37	1
1,4-Difluorobenzene (Surr)	106		70 - 130			07/07/22 15:17	07/10/22 19:37	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0205		0.00400	mg/Kg			07/11/22 08:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4280		249	mg/Kg			07/05/22 13:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249	mg/Kg		07/01/22 15:11	07/04/22 19:10	5
Diesel Range Organics (Over C10-C28)	4280		249	mg/Kg		07/01/22 15:11	07/04/22 19:10	5
OII Range Organics (Over C28-C36)	<249	U	249	mg/Kg		07/01/22 15:11	07/04/22 19:10	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130			07/01/22 15:11	07/04/22 19:10	5
o-Terphenyl	141	S1+	70 - 130			07/01/22 15:11	07/04/22 19:10	5

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS04

Lab Sample ID: 890-2484-4

Date Collected: 06/28/22 11:25

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4200		24.9	mg/Kg			07/11/22 03:23	5

Client Sample ID: SS05

Lab Sample ID: 890-2484-5

Date Collected: 06/28/22 11:40

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:57	1
Ethylbenzene	<0.00200	U *1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:57	1
m-Xylene & p-Xylene	<0.00399	U *1	0.00399	mg/Kg		07/07/22 15:17	07/10/22 19:57	1
o-Xylene	<0.00200	U *1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 19:57	1
Xylenes, Total	<0.00399	U *1	0.00399	mg/Kg		07/07/22 15:17	07/10/22 19:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			07/07/22 15:17	07/10/22 19:57	1
1,4-Difluorobenzene (Surr)	103		70 - 130			07/07/22 15:17	07/10/22 19:57	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			07/11/22 08:28	1

Method: 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			07/05/22 13:34	1

Method: 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		07/01/22 15:11	07/04/22 14:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 14:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 14:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			07/01/22 15:11	07/04/22 14:51	1
o-Terphenyl	134	S1+	70 - 130			07/01/22 15:11	07/04/22 14:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.7		4.96	mg/Kg			07/11/22 03:32	1

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Client Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS06

Lab Sample ID: 890-2484-6

Date Collected: 06/28/22 11:45

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/07/22 15:17	07/10/22 20:18	1
Toluene	0.00624		0.00202	mg/Kg		07/07/22 15:17	07/10/22 20:18	1
Ethylbenzene	0.00380	*1	0.00202	mg/Kg		07/07/22 15:17	07/10/22 20:18	1
m-Xylene & p-Xylene	0.00772	*1	0.00404	mg/Kg		07/07/22 15:17	07/10/22 20:18	1
o-Xylene	0.00388	*1	0.00202	mg/Kg		07/07/22 15:17	07/10/22 20:18	1
Xylenes, Total	0.0116	*1	0.00404	mg/Kg		07/07/22 15:17	07/10/22 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	07/07/22 15:17	07/10/22 20:18	1
1,4-Difluorobenzene (Surr)	94		70 - 130	07/07/22 15:17	07/10/22 20:18	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0216		0.00404	mg/Kg			07/11/22 08:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	242		49.9	mg/Kg			07/05/22 13:34	1

Method: 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		07/01/22 15:11	07/04/22 18:06	1
Diesel Range Organics (Over C10-C28)	242		49.9	mg/Kg		07/01/22 15:11	07/04/22 18:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/01/22 15:11	07/04/22 18:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130	07/01/22 15:11	07/04/22 18:06	1
o-Terphenyl	135	S1+	70 - 130	07/01/22 15:11	07/04/22 18:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.2		5.05	mg/Kg			07/11/22 03:59	1

Client Sample ID: SS07

Lab Sample ID: 890-2484-7

Date Collected: 06/28/22 11:50

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/07/22 15:17	07/10/22 20:38	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/07/22 15:17	07/10/22 20:38	1
Ethylbenzene	<0.00201	U *1	0.00201	mg/Kg		07/07/22 15:17	07/10/22 20:38	1
m-Xylene & p-Xylene	<0.00402	U *1	0.00402	mg/Kg		07/07/22 15:17	07/10/22 20:38	1
o-Xylene	<0.00201	U *1	0.00201	mg/Kg		07/07/22 15:17	07/10/22 20:38	1
Xylenes, Total	<0.00402	U *1	0.00402	mg/Kg		07/07/22 15:17	07/10/22 20:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	07/07/22 15:17	07/10/22 20:38	1

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Client Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS07

Lab Sample ID: 890-2484-7

Date Collected: 06/28/22 11:50

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	102		70 - 130	07/07/22 15:17	07/10/22 20:38	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/11/22 08:28	1

Method: 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			07/05/22 13:34	1

Method: 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		07/01/22 15:11	07/04/22 15:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 15:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130			07/01/22 15:11	07/04/22 15:13	1
o-Terphenyl	145	S1+	70 - 130			07/01/22 15:11	07/04/22 15:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.2		4.99	mg/Kg			07/11/22 04:09	1

Client Sample ID: SS08

Lab Sample ID: 890-2484-8

Date Collected: 06/28/22 11:55

Matrix: Solid

Date Received: 06/30/22 12:58

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 20:59	1
Toluene	0.00970		0.00200	mg/Kg		07/07/22 15:17	07/10/22 20:59	1
Ethylbenzene	0.00962	*1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 20:59	1
m-Xylene & p-Xylene	0.0147	*1	0.00401	mg/Kg		07/07/22 15:17	07/10/22 20:59	1
o-Xylene	0.00469	*1	0.00200	mg/Kg		07/07/22 15:17	07/10/22 20:59	1
Xylenes, Total	0.0194	*1	0.00401	mg/Kg		07/07/22 15:17	07/10/22 20:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	07/07/22 15:17	07/10/22 20:59	1
1,4-Difluorobenzene (Surr)	101		70 - 130	07/07/22 15:17	07/10/22 20:59	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0387		0.00401	mg/Kg			07/11/22 08:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	214		50.0	mg/Kg			07/05/22 13:34	1

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Client Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS08
Date Collected: 06/28/22 11:55
Date Received: 06/30/22 12:58
Sample Depth: 0.5

Lab Sample ID: 890-2484-8
Matrix: Solid

Method: 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		07/01/22 15:11	07/04/22 19:32	1	
Diesel Range Organics (Over C10-C28)	214		50.0	mg/Kg		07/01/22 15:11	07/04/22 19:32	1	
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 19:32	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	131	S1+	70 - 130			07/01/22 15:11	07/04/22 19:32	1	
o-Terphenyl	142	S1+	70 - 130			07/01/22 15:11	07/04/22 19:32	1	

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	47.8		5.00	mg/Kg			07/11/22 04:18	1	

Surrogate Summary

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

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)
890-2484-1	SS01	108	105
890-2484-1 MS	SS01	105	102
890-2484-1 MSD	SS01	103	102
890-2484-2	SS02	83	96
890-2484-3	SS03	141 S1+	96
890-2484-4	SS04	110	106
890-2484-5	SS05	115	103
890-2484-6	SS06	121	94
890-2484-7	SS07	115	102
890-2484-8	SS08	117	101
LCS 880-29220/1-A	Lab Control Sample	110	101
LCSD 880-29220/2-A	Lab Control Sample Dup	105	98
MB 880-29220/5-A	Method Blank	103	94
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2484-1	SS01	144 S1+	150 S1+
890-2484-1 MS	SS01	157 S1+	159 S1+
890-2484-1 MSD	SS01	142 S1+	147 S1+
890-2484-2	SS02	106	109
890-2484-3	SS03	116	175 S1+
890-2484-4	SS04	130	141 S1+
890-2484-5	SS05	122	134 S1+
890-2484-6	SS06	126	135 S1+
890-2484-7	SS07	130	145 S1+
890-2484-8	SS08	131 S1+	142 S1+
LCS 880-28892/2-A	Lab Control Sample	117	118
LCSD 880-28892/3-A	Lab Control Sample Dup	121	125
MB 880-28892/1-A	Method Blank	122	142 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29220/5-A

Matrix: Solid

Analysis Batch: 29366

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29220

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 18:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 18:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 18:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/07/22 15:17	07/10/22 18:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/07/22 15:17	07/10/22 18:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/07/22 15:17	07/10/22 18:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	07/07/22 15:17	07/10/22 18:54	1
1,4-Difluorobenzene (Surr)	94		70 - 130	07/07/22 15:17	07/10/22 18:54	1

Lab Sample ID: LCS 880-29220/1-A

Matrix: Solid

Analysis Batch: 29366

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29220

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1122		mg/Kg		112	70 - 130
Toluene	0.100	0.1093		mg/Kg		109	70 - 130
Ethylbenzene	0.100	0.1142		mg/Kg		114	70 - 130
m-Xylene & p-Xylene	0.200	0.2357		mg/Kg		118	70 - 130
o-Xylene	0.100	0.1180		mg/Kg		118	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-29220/2-A

Matrix: Solid

Analysis Batch: 29366

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29220

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09305		mg/Kg		93	70 - 130	19	35
Toluene	0.100	0.08303		mg/Kg		83	70 - 130	27	35
Ethylbenzene	0.100	0.07760	*1	mg/Kg		78	70 - 130	38	35
m-Xylene & p-Xylene	0.200	0.1584	*1	mg/Kg		79	70 - 130	39	35
o-Xylene	0.100	0.08117	*1	mg/Kg		81	70 - 130	37	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 890-2484-1 MS

Matrix: Solid

Analysis Batch: 29366

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 29220

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.101	0.07704		mg/Kg		77	70 - 130
Toluene	0.00478	F1	0.101	0.06477	F1	mg/Kg		60	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

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

Lab Sample ID: 890-2484-1 MS
Matrix: Solid
Analysis Batch: 29366

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29220

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.00413	F1 *1	0.101	0.05110	F1	mg/Kg		47	70 - 130
m-Xylene & p-Xylene	0.00846	F1 *1	0.201	0.1029	F1	mg/Kg		47	70 - 130
o-Xylene	0.00218	F1 *1	0.101	0.05058	F1	mg/Kg		48	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	105		70 - 130						
1,4-Difluorobenzene (Surr)	102		70 - 130						

Lab Sample ID: 890-2484-1 MSD
Matrix: Solid
Analysis Batch: 29366

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29220

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	0.07989		mg/Kg		79	70 - 130	4	35
Toluene	0.00478	F1	0.101	0.06660	F1	mg/Kg		61	70 - 130	3	35
Ethylbenzene	0.00413	F1 *1	0.101	0.05168	F1	mg/Kg		47	70 - 130	1	35
m-Xylene & p-Xylene	0.00846	F1 *1	0.202	0.1016	F1	mg/Kg		46	70 - 130	1	35
o-Xylene	0.00218	F1 *1	0.101	0.05023	F1	mg/Kg		48	70 - 130	1	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	103		70 - 130								
1,4-Difluorobenzene (Surr)	102		70 - 130								

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

Lab Sample ID: MB 880-28892/1-A
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28892

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		07/01/22 15:11	07/04/22 11:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 11:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/01/22 15:11	07/04/22 11:12	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	122		70 - 130	07/01/22 15:11	07/04/22 11:12	1		
o-Terphenyl	142	S1+	70 - 130	07/01/22 15:11	07/04/22 11:12	1		

Lab Sample ID: LCS 880-28892/2-A
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1174		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1126		mg/Kg		113	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

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

Lab Sample ID: LCS 880-28892/2-A
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28892

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: LCSD 880-28892/3-A
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28892

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1178		mg/Kg		118	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	1168		mg/Kg		117	70 - 130	4	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	125		70 - 130

Lab Sample ID: 890-2484-1 MS
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 28892

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	996	1563	F1	mg/Kg		154	70 - 130
Diesel Range Organics (Over C10-C28)	3030	F1	996	1488	F1	mg/Kg		-155	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	157	S1+	70 - 130
o-Terphenyl	159	S1+	70 - 130

Lab Sample ID: 890-2484-1 MSD
Matrix: Solid
Analysis Batch: 28975

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 28892

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	996	1447	F1	mg/Kg		143	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	3030	F1	996	1351	F1	mg/Kg		-168	70 - 130	10	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	142	S1+	70 - 130
o-Terphenyl	147	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-28849/1-A Matrix: Solid Analysis Batch: 29315										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			07/11/22 02:09	1				

Lab Sample ID: LCS 880-28849/2-A Matrix: Solid Analysis Batch: 29315										Client Sample ID: Lab Control Sample Prep Type: Soluble		
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits			
Chloride			250	236.9		mg/Kg		95	90 - 110			

Lab Sample ID: LCSD 880-28849/3-A Matrix: Solid Analysis Batch: 29315										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	237.3		mg/Kg		95	90 - 110	0	20	

Lab Sample ID: 890-2484-1 MS Matrix: Solid Analysis Batch: 29315										Client Sample ID: SS01 Prep Type: Soluble		
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits			
Chloride	2010	F1	1240	3653	F1	mg/Kg		133	90 - 110			

Lab Sample ID: 890-2484-1 MSD Matrix: Solid Analysis Batch: 29315										Client Sample ID: SS01 Prep Type: Soluble		
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	2010	F1	1240	3666	F1	mg/Kg		134	90 - 110	0	20	

QC Association Summary

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

GC VOA

Prep Batch: 29220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1	SS01	Total/NA	Solid	5035	
890-2484-2	SS02	Total/NA	Solid	5035	
890-2484-3	SS03	Total/NA	Solid	5035	
890-2484-4	SS04	Total/NA	Solid	5035	
890-2484-5	SS05	Total/NA	Solid	5035	
890-2484-6	SS06	Total/NA	Solid	5035	
890-2484-7	SS07	Total/NA	Solid	5035	
890-2484-8	SS08	Total/NA	Solid	5035	
MB 880-29220/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29220/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29220/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2484-1 MS	SS01	Total/NA	Solid	5035	
890-2484-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 29366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1	SS01	Total/NA	Solid	8021B	29220
890-2484-2	SS02	Total/NA	Solid	8021B	29220
890-2484-3	SS03	Total/NA	Solid	8021B	29220
890-2484-4	SS04	Total/NA	Solid	8021B	29220
890-2484-5	SS05	Total/NA	Solid	8021B	29220
890-2484-6	SS06	Total/NA	Solid	8021B	29220
890-2484-7	SS07	Total/NA	Solid	8021B	29220
890-2484-8	SS08	Total/NA	Solid	8021B	29220
MB 880-29220/5-A	Method Blank	Total/NA	Solid	8021B	29220
LCS 880-29220/1-A	Lab Control Sample	Total/NA	Solid	8021B	29220
LCSD 880-29220/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29220
890-2484-1 MS	SS01	Total/NA	Solid	8021B	29220
890-2484-1 MSD	SS01	Total/NA	Solid	8021B	29220

Analysis Batch: 29382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1	SS01	Total/NA	Solid	Total BTEX	
890-2484-2	SS02	Total/NA	Solid	Total BTEX	
890-2484-3	SS03	Total/NA	Solid	Total BTEX	
890-2484-4	SS04	Total/NA	Solid	Total BTEX	
890-2484-5	SS05	Total/NA	Solid	Total BTEX	
890-2484-6	SS06	Total/NA	Solid	Total BTEX	
890-2484-7	SS07	Total/NA	Solid	Total BTEX	
890-2484-8	SS08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 28892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1	SS01	Total/NA	Solid	8015NM Prep	
890-2484-2	SS02	Total/NA	Solid	8015NM Prep	
890-2484-3	SS03	Total/NA	Solid	8015NM Prep	
890-2484-4	SS04	Total/NA	Solid	8015NM Prep	
890-2484-5	SS05	Total/NA	Solid	8015NM Prep	
890-2484-6	SS06	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

GC Semi VOA (Continued)

Prep Batch: 28892 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-7	SS07	Total/NA	Solid	8015NM Prep	
890-2484-8	SS08	Total/NA	Solid	8015NM Prep	
MB 880-28892/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28892/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28892/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2484-1 MS	SS01	Total/NA	Solid	8015NM Prep	
890-2484-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 28975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1	SS01	Total/NA	Solid	8015B NM	28892
890-2484-2	SS02	Total/NA	Solid	8015B NM	28892
890-2484-3	SS03	Total/NA	Solid	8015B NM	28892
890-2484-4	SS04	Total/NA	Solid	8015B NM	28892
890-2484-5	SS05	Total/NA	Solid	8015B NM	28892
890-2484-6	SS06	Total/NA	Solid	8015B NM	28892
890-2484-7	SS07	Total/NA	Solid	8015B NM	28892
890-2484-8	SS08	Total/NA	Solid	8015B NM	28892
MB 880-28892/1-A	Method Blank	Total/NA	Solid	8015B NM	28892
LCS 880-28892/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28892
LCSD 880-28892/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28892
890-2484-1 MS	SS01	Total/NA	Solid	8015B NM	28892
890-2484-1 MSD	SS01	Total/NA	Solid	8015B NM	28892

Analysis Batch: 29045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1	SS01	Total/NA	Solid	8015 NM	
890-2484-2	SS02	Total/NA	Solid	8015 NM	
890-2484-3	SS03	Total/NA	Solid	8015 NM	
890-2484-4	SS04	Total/NA	Solid	8015 NM	
890-2484-5	SS05	Total/NA	Solid	8015 NM	
890-2484-6	SS06	Total/NA	Solid	8015 NM	
890-2484-7	SS07	Total/NA	Solid	8015 NM	
890-2484-8	SS08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 28849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1	SS01	Soluble	Solid	DI Leach	
890-2484-2	SS02	Soluble	Solid	DI Leach	
890-2484-3	SS03	Soluble	Solid	DI Leach	
890-2484-4	SS04	Soluble	Solid	DI Leach	
890-2484-5	SS05	Soluble	Solid	DI Leach	
890-2484-6	SS06	Soluble	Solid	DI Leach	
890-2484-7	SS07	Soluble	Solid	DI Leach	
890-2484-8	SS08	Soluble	Solid	DI Leach	
MB 880-28849/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-28849/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-28849/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2484-1 MS	SS01	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

HPLC/IC (Continued)

Leach Batch: 28849 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 29315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2484-1	SS01	Soluble	Solid	300.0	28849
890-2484-2	SS02	Soluble	Solid	300.0	28849
890-2484-3	SS03	Soluble	Solid	300.0	28849
890-2484-4	SS04	Soluble	Solid	300.0	28849
890-2484-5	SS05	Soluble	Solid	300.0	28849
890-2484-6	SS06	Soluble	Solid	300.0	28849
890-2484-7	SS07	Soluble	Solid	300.0	28849
890-2484-8	SS08	Soluble	Solid	300.0	28849
MB 880-28849/1-A	Method Blank	Soluble	Solid	300.0	28849
LCS 880-28849/2-A	Lab Control Sample	Soluble	Solid	300.0	28849
LCSD 880-28849/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	28849
890-2484-1 MS	SS01	Soluble	Solid	300.0	28849
890-2484-1 MSD	SS01	Soluble	Solid	300.0	28849

Lab Chronicle

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS01
Date Collected: 06/28/22 11:10
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29220	07/07/22 15:17	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29366	07/10/22 19:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29382	07/11/22 08:28	MR	XEN MID
Total/NA	Analysis	8015 NM		1			29045	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 17:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	28849	07/01/22 12:17	CH	XEN MID
Soluble	Analysis	300.0		5			29315	07/11/22 02:37	CH	XEN MID

Client Sample ID: SS02
Date Collected: 06/28/22 11:15
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-2
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			5.04 g	5 mL	29220	07/07/22 15:17	EL	XEN MID
Total/NA	Analysis	8021B		25	5 mL	5 mL	29366	07/10/22 22:00	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29382	07/11/22 08:28	MR	XEN MID
Total/NA	Analysis	8015 NM		1			29045	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		5			28975	07/04/22 18:28	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	28849	07/01/22 12:17	CH	XEN MID
Soluble	Analysis	300.0		10			29315	07/11/22 03:04	CH	XEN MID

Client Sample ID: SS03
Date Collected: 06/28/22 11:20
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	29220	07/07/22 15:17	EL	XEN MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	29366	07/10/22 22:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29382	07/11/22 08:28	MR	XEN MID
Total/NA	Analysis	8015 NM		1			29045	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		10			28975	07/04/22 18:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	28849	07/01/22 12:17	CH	XEN MID
Soluble	Analysis	300.0		1			29315	07/11/22 03:13	CH	XEN MID

Client Sample ID: SS04
Date Collected: 06/28/22 11:25
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	29220	07/07/22 15:17	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29366	07/10/22 19:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29382	07/11/22 08:28	MR	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS04
Date Collected: 06/28/22 11:25
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			29045	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		5			28975	07/04/22 19:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	28849	07/01/22 12:17	CH	XEN MID
Soluble	Analysis	300.0		5			29315	07/11/22 03:23	CH	XEN MID

Client Sample ID: SS05
Date Collected: 06/28/22 11:40
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	29220	07/07/22 15:17	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29366	07/10/22 19:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29382	07/11/22 08:28	MR	XEN MID
Total/NA	Analysis	8015 NM		1			29045	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 14:51	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	28849	07/01/22 12:17	CH	XEN MID
Soluble	Analysis	300.0		1			29315	07/11/22 03:32	CH	XEN MID

Client Sample ID: SS06
Date Collected: 06/28/22 11:45
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	29220	07/07/22 15:17	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29366	07/10/22 20:18	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29382	07/11/22 08:28	MR	XEN MID
Total/NA	Analysis	8015 NM		1			29045	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 18:06	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	28849	07/01/22 12:17	CH	XEN MID
Soluble	Analysis	300.0		1			29315	07/11/22 03:59	CH	XEN MID

Client Sample ID: SS07
Date Collected: 06/28/22 11:50
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	29220	07/07/22 15:17	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29366	07/10/22 20:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29382	07/11/22 08:28	MR	XEN MID
Total/NA	Analysis	8015 NM		1			29045	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 15:13	AJ	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Client Sample ID: SS07
Date Collected: 06/28/22 11:50
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	28849	07/01/22 12:17	CH	XEN MID
Soluble	Analysis	300.0		1			29315	07/11/22 04:09	CH	XEN MID

Client Sample ID: SS08
Date Collected: 06/28/22 11:55
Date Received: 06/30/22 12:58

Lab Sample ID: 890-2484-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	29220	07/07/22 15:17	EL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29366	07/10/22 20:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29382	07/11/22 08:28	MR	XEN MID
Total/NA	Analysis	8015 NM		1			29045	07/05/22 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	28892	07/01/22 15:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28975	07/04/22 19:32	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	28849	07/01/22 12:17	CH	XEN MID
Soluble	Analysis	300.0		1			29315	07/11/22 04:18	CH	XEN MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Laboratory: Eurofins Midland

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

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

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

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

Sample Summary

Client: Ensolum
Project/Site: East Vaccum Unit 904-001

Job ID: 890-2484-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2484-1	SS01	Solid	06/28/22 11:10	06/30/22 12:58	0.5
890-2484-2	SS02	Solid	06/28/22 11:15	06/30/22 12:58	0.5
890-2484-3	SS03	Solid	06/28/22 11:20	06/30/22 12:58	0.5
890-2484-4	SS04	Solid	06/28/22 11:25	06/30/22 12:58	0.5
890-2484-5	SS05	Solid	06/28/22 11:40	06/30/22 12:58	0.5
890-2484-6	SS06	Solid	06/28/22 11:45	06/30/22 12:58	0.5
890-2484-7	SS07	Solid	06/28/22 11:50	06/30/22 12:58	0.5
890-2484-8	SS08	Solid	06/28/22 11:55	06/30/22 12:58	0.5

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Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 1

Project Manager:	KALEI JENNINGS	Bill to: (if different)	
Company Name:	ENSALEM LLC	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	817.683.3503	Email:	kjennings@ensalem.com

Work Order Comments			
Program:	UST/PT	PRP	Brownfields
State of Project:			RRC
Reporting:	Level II	Level III	Level IV
Deliverables:	EDD	ADAPT	Other:

Project Name:	EAST VACUUM UNIT 904-U03	Turn Around	
Project Number:	03D2057006	Due Date:	
Project Location:	Corner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:		Temp Blank:	Yes No
SAMPLE RECEIPT	Temp Blank: Yes No	Thermometer ID:	TM-057
Samples Received Intract:	Yes No	Correction Factor:	-0.8
Cooler Custody Seals:	Yes No	Temperature Reading:	3.0
Sample Custody Seals:	Yes No	Corrected Temperature:	3.0
Total Containers:			

890-2484 Chain of Custody



Sample Identification	Matrix	Date Sampled	Time	Depth	Grab/Comp	# of Cont	Parameters
SSY1	S	06/08	11:00	0.5	6	1	X BTEX
SS03			11:15				X TPH
SS04			11:20				X Chlorides
SS05			11:25				
SS06			11:40				
SS07			11:45				
SS08			11:50				
SS09			11:55				

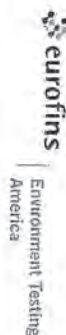
Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		03.02.2023			

Eurofins Carlsbad

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

Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2484-1

SDG Number: 03D2057008

Login Number: 2484

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2484-1

SDG Number: 03D2057008

Login Number: 2484

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 07/01/22 11:58 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").	N/A	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2892-1

Laboratory Sample Delivery Group: 03D2057008

Client Project/Site: EVU 1904

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

9/21/2022 2:05:14 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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results through



Have a Question?



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www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: EVU 1904

Laboratory Job ID: 890-2892-1
SDG: 03D2057008

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Definitions/Glossary

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7 Rri j rmlri : t / a 490V

Job ID: 890-2892-4
mDS: 0GD2035008

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	L1 mRexωPL1 mD IEosrBxi Rj j i drRej i Q IrE FIMF bIRE xv
y4	+ mRexωP+ mD Rj ogi P i hj i i xEj oerRQW IrEv
y2	+ m+ mD w7D i hj i i xEj oerRQW IrE
m4-	msRMRi Rj ogi P i hj i i xEj oerRQW IrE Qz bIRE xv
m4*	msRMRi Rj ogi P i hj i i xEj oerRQW IrE FIMF bIRE xv
a	lexlj Ri ErFi ReRÇri z RE ReRÇfi x R Pbsneonxi ni j ni xv

GC Semi VOA

Qualifier	Qualifier Description
m4*	msRMRi Rj ogi P i hj i i xEj oerRQW IrE FIMF bIRE xv
a	lexlj Ri ErFi ReRÇri z RE ReRÇfi x R Pbsneonxi ni j ni xv

HPLC/IC

Qualifier	Qualifier Description
a	lexlj Ri ErFi ReRÇri z RE ReRÇfi x R Pbsneonxi ni j ni xv

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
"	LIEi x sexi PrFi pDpj oGu e rø xi BMEri rFRnrFi R EsQIE R doRi x oe RxP, z i IMFnbRE
%w	7i Rj i enwi j ogi P
1yL	1 oerReEyR i Llqslx
1ya	1 oGe, yoRu leMa eln
1Ny	1 oerReE No yR i Llqslx
Dt w	DsdQ Ri t RbPwRto (eoRu RQ i x RbEoGri xlm R ej i)
DIQyRj	DIQtoe yRj røP
DL	Di ni j rtoe Llu In(DoDdDot)
DL. wA. wt . IN	lexlj Ri ERDIGtoe. wi -ReRÇBE wi -i hrRj rtoe. oPRxlrtoeRQelrRQ i rREReloe ReRÇBE oarFi ERu dC
DL1	Di j lBoe Li gi Cl oej i erRtoe (wRxloj Fi u lERj)
t DL	t Etlu Ri x Di ni j rtoe Llu In(Dlohle)
LOD	Llu InoDdi ni j rtoe (DoDdDot)
LOQ	Llu InoQsRerlrRtoe (DoDdDot)
+ 1L	t 7A Rj ou u i exi x p+ Rhl u su 1 oerRu leRenLi gi Q
+ DA	+ lelu su Di ni j rRbC Aj rglñ (wRxloj Fi u lERj)
+ D1	+ lelu su Di ni j rRbC 1 oej i erRtoe (wRxloj Fi u lERj)
+ DL	+ i rFox Di ni j rtoe Llu In
+ L	+ lelu su Li gi Q(Dlohle)
+ 7N	+ oEn7RbRbC Nsu bi P
+ QL	+ i rFox QsRerlrRtoe Llu In
N1	Non1 RÇsÇri x
ND	NonDi ni j ri x RnrFi R doRleMQu In(oP+ DL oPt DL lEFOz e)
Nt S	Ni MRigi cAbE en
7Om	7 oBrlgi c7R E en
7QL	7 Rj rñj RQsRerlrRtoe Llu In
7wt m	7 R Esu drigi
Q1	QsRQ 1 oerRbC
wt w	wi Çrigi t RbPwRto (wRxloj Fi u lERj)
wL	wi doRleMLlu InoPwi qsi Eri x Llu In(wRxloj Fi u lERj)
w7D	wi Çrigi 7i Rj i enDlR R ej i . Ru i RESR oarFi R Çrigi xlm R ej i bi rz i i e rz o dolerE
Tt y	Tohlj In t qslgRÇenyRj røP(Dlohle)
Tt Q	Tohlj In t qslgRÇenQsori en(Dlohle)
TNT1	Too Nsu i RbSETo 1 osen

Case Narrative

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Job ID: 890-2892-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2892-1

Receipt

The samples were received on 9/8/2022 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.0°C

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: SS09 (890-2892-1), PH05 (890-2892-2), PH05 (890-2892-3), PH01 (890-2892-4), PH01 (890-2892-5), PH02 (890-2892-6), PH02 (890-2892-7), PH03 (890-2892-8), PH03 (890-2892-9), PH04 (890-2892-10) and PH04 (890-2892-11). This does not meet regulatory requirements. The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis.

890-2892

Temp Blank 6.2 c/ 6.0 c client says they were in the fridge overnight and was taken out this am- would like to proceed with processing.

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34597 and analytical batch 880-34819 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-34801/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: The LCS was biased high for o-xylene. Since the method requires either an acceptable LCS or LCSD, the data was qualified and reported. (LCSD 880-34678/2-A)

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34678 and analytical batch 880-34891 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCSD 880-34678/2-A), (890-2892-A-1-G MS) and (890-2892-A-1-H MSD). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-34128 and analytical batch 880-34048 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-34128/2-A) and (LCSD 880-34128/3-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: SS09

Lab Sample ID: 890-2892-1

Date Collected: 09/07/22 10:05

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U F1 F2	0.00201	mg/Kg		09/16/22 13:28	09/20/22 21:41	1
Toluene	<0.00201	U F1 F2	0.00201	mg/Kg		09/16/22 13:28	09/20/22 21:41	1
Ethylbenzene	<0.00201	U F1 F2	0.00201	mg/Kg		09/16/22 13:28	09/20/22 21:41	1
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.00402	mg/Kg		09/16/22 13:28	09/20/22 21:41	1
o-Xylene	<0.00201	U *+ F1 F2	0.00201	mg/Kg		09/16/22 13:28	09/20/22 21:41	1
Xylenes, Total	<0.00402	U F1 F2	0.00402	mg/Kg		09/16/22 13:28	09/20/22 21:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	09/16/22 13:28	09/20/22 21:41	1
1,4-Difluorobenzene (Surr)	86		70 - 130	09/16/22 13:28	09/20/22 21:41	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/19/22 16:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	293		49.9	mg/Kg			09/12/22 11:10	1

Method: 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		09/09/22 16:47	09/09/22 22:34	1
Diesel Range Organics (Over C10-C28)	191		49.9	mg/Kg		09/09/22 16:47	09/09/22 22:34	1
Oil Range Organics (Over C28-C36)	102		49.9	mg/Kg		09/09/22 16:47	09/09/22 22:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	09/09/22 16:47	09/09/22 22:34	1
o-Terphenyl	89		70 - 130	09/09/22 16:47	09/09/22 22:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.2		5.02	mg/Kg			09/13/22 12:41	1

Client Sample ID: PH05

Lab Sample ID: 890-2892-2

Date Collected: 09/07/22 10:30

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/16/22 13:28	09/20/22 22:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/16/22 13:28	09/20/22 22:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/16/22 13:28	09/20/22 22:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		09/16/22 13:28	09/20/22 22:01	1
o-Xylene	<0.00200	U *+	0.00200	mg/Kg		09/16/22 13:28	09/20/22 22:01	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		09/16/22 13:28	09/20/22 22:01	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH05

Lab Sample ID: 890-2892-2

Date Collected: 09/07/22 10:30

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130			09/16/22 13:28	09/20/22 22:01	1
1,4-Difluorobenzene (Surr)	81		70 - 130			09/16/22 13:28	09/20/22 22:01	1
Method: Total BTEX - Total BTEX Calculation								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			09/19/22 16:37	1
Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	184		49.9	mg/Kg			09/12/22 11:10	1
Method: 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		09/09/22 16:47	09/09/22 22:13	1
Diesel Range Organics (Over C10-C28)	118		49.9	mg/Kg		09/09/22 16:47	09/09/22 22:13	1
Oil Range Organics (Over C28-C36)	65.9		49.9	mg/Kg		09/09/22 16:47	09/09/22 22:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			09/09/22 16:47	09/09/22 22:13	1
o-Terphenyl	112		70 - 130			09/09/22 16:47	09/09/22 22:13	1
Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47.1		4.98	mg/Kg			09/13/22 12:46	1

Client Sample ID: PH05

Lab Sample ID: 890-2892-3

Date Collected: 09/06/22 11:00

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 15:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 15:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 15:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/15/22 14:33	09/19/22 15:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 15:44	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/15/22 14:33	09/19/22 15:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			09/15/22 14:33	09/19/22 15:44	1
1,4-Difluorobenzene (Surr)	117		70 - 130			09/15/22 14:33	09/19/22 15:44	1
Method: Total BTEX - Total BTEX Calculation								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			09/19/22 16:37	

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH05
Date Collected: 09/06/22 11:00
Date Received: 09/08/22 08:15
Sample Depth: 2

Lab Sample ID: 890-2892-3
Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	924		50.0	mg/Kg			09/12/22 11:10	1
Method: 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		09/09/22 16:47	09/09/22 22:56	1
Diesel Range Organics (Over C10-C28)	580		50.0	mg/Kg		09/09/22 16:47	09/09/22 22:56	1
Oil Range Organics (Over C28-C36)	344		50.0	mg/Kg		09/09/22 16:47	09/09/22 22:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			09/09/22 16:47	09/09/22 22:56	1
o-Terphenyl	89		70 - 130			09/09/22 16:47	09/09/22 22:56	1
Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		24.9	mg/Kg			09/13/22 13:01	5

Client Sample ID: PH01
Date Collected: 09/06/22 10:15
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2892-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00199	U	0.00199	mg/Kg		09/15/22 14:33	09/19/22 23:44	1	
Toluene	<0.00199	U	0.00199	mg/Kg		09/15/22 14:33	09/19/22 23:44	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/15/22 14:33	09/19/22 23:44	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/15/22 14:33	09/19/22 23:44	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/15/22 14:33	09/19/22 23:44	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/15/22 14:33	09/19/22 23:44	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	118		70 - 130			09/15/22 14:33	09/19/22 23:44	1	
1,4-Difluorobenzene (Surr)	94		70 - 130			09/15/22 14:33	09/19/22 23:44	1	
Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/19/22 16:37	1	
Method: 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			09/12/22 11:10	1	
Method: 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		09/09/22 16:47	09/09/22 21:51	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/09/22 16:47	09/09/22 21:51	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/09/22 16:47	09/09/22 21:51	1	

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Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH01

Lab Sample ID: 890-2892-4

Date Collected: 09/06/22 10:15

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	09/09/22 16:47	09/09/22 21:51	1
o-Terphenyl	100		70 - 130	09/09/22 16:47	09/09/22 21:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.0		4.99	mg/Kg			09/13/22 13:05	1

Client Sample ID: PH01

Lab Sample ID: 890-2892-5

Date Collected: 09/06/22 10:20

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 00:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 00:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 00:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/15/22 14:33	09/20/22 00:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 00:05	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/15/22 14:33	09/20/22 00:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	09/15/22 14:33	09/20/22 00:05	1
1,4-Difluorobenzene (Surr)	92		70 - 130	09/15/22 14:33	09/20/22 00:05	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			09/19/22 16:37	1

Method: 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			09/12/22 11:10	1

Method: 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		09/09/22 16:47	09/09/22 19:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/09/22 16:47	09/09/22 19:42	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/09/22 16:47	09/09/22 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	09/09/22 16:47	09/09/22 19:42	1
o-Terphenyl	103		70 - 130	09/09/22 16:47	09/09/22 19:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	382		5.03	mg/Kg			09/13/22 13:10	1

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Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH02

Lab Sample ID: 890-2892-6

Date Collected: 09/06/22 10:00

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		09/15/22 14:33	09/20/22 00:25	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/15/22 14:33	09/20/22 00:25	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/15/22 14:33	09/20/22 00:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/15/22 14:33	09/20/22 00:25	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/15/22 14:33	09/20/22 00:25	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/15/22 14:33	09/20/22 00:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	09/15/22 14:33	09/20/22 00:25	1
1,4-Difluorobenzene (Surr)	78		70 - 130	09/15/22 14:33	09/20/22 00:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			09/19/22 16:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	372		50.0	mg/Kg			09/12/22 11:10	1

Method: 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		09/09/22 16:47	09/09/22 23:17	1
Diesel Range Organics (Over C10-C28)	245		50.0	mg/Kg		09/09/22 16:47	09/09/22 23:17	1
Oil Range Organics (Over C28-C36)	127		50.0	mg/Kg		09/09/22 16:47	09/09/22 23:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	09/09/22 16:47	09/09/22 23:17	1
o-Terphenyl	101		70 - 130	09/09/22 16:47	09/09/22 23:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	743		5.01	mg/Kg			09/13/22 13:15	1

Client Sample ID: PH02

Lab Sample ID: 890-2892-7

Date Collected: 09/06/22 10:05

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 00:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 00:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 00:46	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		09/15/22 14:33	09/20/22 00:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 00:46	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		09/15/22 14:33	09/20/22 00:46	1

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Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH02

Lab Sample ID: 890-2892-7

Date Collected: 09/06/22 10:05

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	09/15/22 14:33	09/20/22 00:46	1
1,4-Difluorobenzene (Surr)	73		70 - 130	09/15/22 14:33	09/20/22 00:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			09/19/22 16:37	1

Method: 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			09/12/22 11:10	1

Method: 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		09/09/22 16:47	09/09/22 20:46	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		09/09/22 16:47	09/09/22 20:46	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		09/09/22 16:47	09/09/22 20:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			09/09/22 16:47	09/09/22 20:46	1
o-Terphenyl	98		70 - 130			09/09/22 16:47	09/09/22 20:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	849		25.0	mg/Kg			09/13/22 13:20	5

Client Sample ID: PH03

Lab Sample ID: 890-2892-8

Date Collected: 09/06/22 09:25

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		09/15/22 14:33	09/20/22 01:06	1
Toluene	<0.00202	U	0.00202	mg/Kg		09/15/22 14:33	09/20/22 01:06	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		09/15/22 14:33	09/20/22 01:06	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		09/15/22 14:33	09/20/22 01:06	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		09/15/22 14:33	09/20/22 01:06	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		09/15/22 14:33	09/20/22 01:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	09/15/22 14:33	09/20/22 01:06	1
1,4-Difluorobenzene (Surr)	93		70 - 130	09/15/22 14:33	09/20/22 01:06	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			09/19/22 16:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	5050		249	mg/Kg			09/12/22 11:10	1

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Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH03

Lab Sample ID: 890-2892-8

Date Collected: 09/06/22 09:25

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249	mg/Kg		09/09/22 16:47	09/09/22 23:39	5
Diesel Range Organics (Over C10-C28)	4130		249	mg/Kg		09/09/22 16:47	09/09/22 23:39	5
Oil Range Organics (Over C28-C36)	917		249	mg/Kg		09/09/22 16:47	09/09/22 23:39	5
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			09/09/22 16:47	09/09/22 23:39	5
o-Terphenyl	95		70 - 130			09/09/22 16:47	09/09/22 23:39	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	223		4.98	mg/Kg			09/13/22 13:25	1

Client Sample ID: PH03

Lab Sample ID: 890-2892-9

Date Collected: 09/06/22 09:45

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 01:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 01:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 01:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/15/22 14:33	09/20/22 01:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 01:26	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/15/22 14:33	09/20/22 01:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			09/15/22 14:33	09/20/22 01:26	1
1,4-Difluorobenzene (Surr)	90		70 - 130			09/15/22 14:33	09/20/22 01:26	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			09/19/22 16:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1850		49.9	mg/Kg			09/12/22 11:10	1

Method: 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		09/09/22 16:47	09/10/22 00:22	1
Diesel Range Organics (Over C10-C28)	1520		49.9	mg/Kg		09/09/22 16:47	09/10/22 00:22	1
Oil Range Organics (Over C28-C36)	333		49.9	mg/Kg		09/09/22 16:47	09/10/22 00:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			09/09/22 16:47	09/10/22 00:22	1

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Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH03
Date Collected: 09/06/22 09:45
Date Received: 09/08/22 08:15
Sample Depth: 2

Lab Sample ID: 890-2892-9
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)									
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
o-Terphenyl	82		70 - 130			09/09/22 16:47	09/10/22 00:22	1	

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	298		4.95	mg/Kg			09/13/22 13:40	1	

Client Sample ID: PH04
Date Collected: 09/06/22 09:05
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2892-10
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00199	U	0.00199	mg/Kg		09/15/22 14:33	09/20/22 01:46	1	
Toluene	<0.00199	U	0.00199	mg/Kg		09/15/22 14:33	09/20/22 01:46	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		09/15/22 14:33	09/20/22 01:46	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		09/15/22 14:33	09/20/22 01:46	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		09/15/22 14:33	09/20/22 01:46	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		09/15/22 14:33	09/20/22 01:46	1	

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		70 - 130			09/15/22 14:33	09/20/22 01:46	1	
1,4-Difluorobenzene (Surr)	88		70 - 130			09/15/22 14:33	09/20/22 01:46	1	

Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg			09/19/22 16:37	1	

Method: 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			09/12/22 11:10	1	

Method: 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		09/09/22 16:47	09/09/22 21:08	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/09/22 16:47	09/09/22 21:08	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/09/22 16:47	09/09/22 21:08	1	

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	112		70 - 130			09/09/22 16:47	09/09/22 21:08	1	
o-Terphenyl	112		70 - 130			09/09/22 16:47	09/09/22 21:08	1	

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1250		25.0	mg/Kg			09/13/22 13:44	5	

Client Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH04

Lab Sample ID: 890-2892-11

Date Collected: 09/06/22 09:20

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 03:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 03:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 03:09	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		09/15/22 14:33	09/20/22 03:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/20/22 03:09	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		09/15/22 14:33	09/20/22 03:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	09/15/22 14:33	09/20/22 03:09	1
1,4-Difluorobenzene (Surr)	82		70 - 130	09/15/22 14:33	09/20/22 03:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			09/19/22 16:37	1

Method: 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			09/12/22 11:10	1

Method: 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		09/09/22 16:47	09/09/22 21:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		09/09/22 16:47	09/09/22 21:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		09/09/22 16:47	09/09/22 21:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	09/09/22 16:47	09/09/22 21:30	1
o-Terphenyl	96		70 - 130	09/09/22 16:47	09/09/22 21:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2890		25.0	mg/Kg			09/13/22 13:59	5

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Surrogate Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
880-18965-A-1-G MS	Matrix Spike	113	106				
880-18965-A-1-H MSD	Matrix Spike Duplicate	109	105				
890-2891-A-1-H MS	Matrix Spike	104	105				
890-2891-A-1-I MSD	Matrix Spike Duplicate	103	98				
890-2892-1	SS09	114	86				
890-2892-1 MS	SS09	103	67 S1-				
890-2892-1 MSD	SS09	162 S1+	94				
890-2892-2	PH05	117	81				
890-2892-3	PH05	115	117				
890-2892-4	PH01	118	94				
890-2892-5	PH01	120	92				
890-2892-6	PH02	111	78				
890-2892-7	PH02	100	73				
890-2892-8	PH03	123	93				
890-2892-9	PH03	121	90				
890-2892-10	PH04	103	88				
890-2892-11	PH04	116	82				
LCS 880-34597/1-A	Lab Control Sample	120	103				
LCS 880-34597/1-A	Lab Control Sample	116	113				
LCS 880-34678/1-A	Lab Control Sample	113	87				
LCS 880-34801/1-A	Lab Control Sample	131 S1+	98				
LCSD 880-34597/2-A	Lab Control Sample Dup	115	106				
LCSD 880-34597/2-A	Lab Control Sample Dup	108	111				
LCSD 880-34678/2-A	Lab Control Sample Dup	151 S1+	99				
LCSD 880-34801/2-A	Lab Control Sample Dup	128	97				
MB 880-34597/5-A	Method Blank	103	89				
MB 880-34597/5-A	Method Blank	79	80				
MB 880-34678/5-A	Method Blank	103	86				
MB 880-34801/5-A	Method Blank	104	84				
MB 880-34854/5-A	Method Blank	98	91				
Surrogate Legend							
BFB = 4-Bromofluorobenzene (Surr)							
DFBZ = 1,4-Difluorobenzene (Surr)							

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
890-2892-1	SS09	98	89				
890-2892-2	PH05	114	112				
890-2892-3	PH05	103	89				
890-2892-4	PH01	99	100				
890-2892-5	PH01	101	103				
890-2892-5 MS	PH01	101	92				
890-2892-5 MSD	PH01	111	97				
890-2892-6	PH02	109	101				
890-2892-7	PH02	95	98				

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Surrogate Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2892-8	PH03	99	95
890-2892-9	PH03	97	82
890-2892-10	PH04	112	112
890-2892-11	PH04	95	96
LCS 880-34128/2-A	Lab Control Sample	133 S1+	131 S1+
LCSD 880-34128/3-A	Lab Control Sample Dup	131 S1+	131 S1+
MB 880-34128/1-A	Method Blank	133 S1+	136 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34597/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 34819						Prep Batch: 34597		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 14:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 14:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 14:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/15/22 14:33	09/19/22 14:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 14:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/15/22 14:33	09/19/22 14:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	10		18 - 738			80/7:/22 7453	80/70/22 7457	7
76%-fluorobenzene (Surr)	98		18 - 738			80/7:/22 7453	80/70/22 7457	7

Lab Sample ID: MB 880-34597/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 34746						Prep Batch: 34597		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 22:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 22:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 22:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/15/22 14:33	09/19/22 22:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/15/22 14:33	09/19/22 22:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/15/22 14:33	09/19/22 22:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	783		18 - 738			80/7:/22 7453	80/70/22 2257	7
76%-fluorobenzene (Surr)	90		18 - 738			80/7:/22 7453	80/70/22 2257	7

Lab Sample ID: LCS 880-34597/1-A						Client Sample ID: Lab Control Sample		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 34819						Prep Batch: 34597		
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	0.100	0.1112		mg/Kg		111	70 - 130	
Toluene	0.100	0.1033		mg/Kg		103	70 - 130	
Ethylbenzene	0.100	0.1274		mg/Kg		127	70 - 130	
m-Xylene & p-Xylene	0.200	0.2108		mg/Kg		105	70 - 130	
o-Xylene	0.100	0.1034		mg/Kg		103	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	771		18 - 738					
76%-fluorobenzene (Surr)	773		18 - 738					

Lab Sample ID: LCS 880-34597/1-A						Client Sample ID: Lab Control Sample		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 34746						Prep Batch: 34597		
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	0.100	0.08304		mg/Kg		83	70 - 130	

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QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

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

Lab Sample ID: LCS 880-34597/1-A

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.100	0.07619		mg/Kg		76	70 - 130
Ethylbenzene	0.100	0.08173		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	0.200	0.1722		mg/Kg		86	70 - 130
o-Xylene	0.100	0.09898		mg/Kg		99	70 - 130

Surrogate	%Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	728		18 - 738
76f-, Fluorobenzene (Surr)	783		18 - 738

Lab Sample ID: LCSD 880-34597/2-A

Matrix: Solid

Analysis Batch: 34819

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34597

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1064		mg/Kg		106	70 - 130	4	35
Toluene	0.100	0.1006		mg/Kg		101	70 - 130	3	35
Ethylbenzene	0.100	0.1204		mg/Kg		120	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2006		mg/Kg		100	70 - 130	5	35
o-Xylene	0.100	0.09685		mg/Kg		97	70 - 130	7	35

Surrogate	%Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	789		18 - 738
76f-, Fluorobenzene (Surr)	777		18 - 738

Lab Sample ID: LCSD 880-34597/2-A

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34597

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08511		mg/Kg		85	70 - 130	2	35
Toluene	0.100	0.07870		mg/Kg		79	70 - 130	3	35
Ethylbenzene	0.100	0.08172		mg/Kg		82	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1710		mg/Kg		85	70 - 130	1	35
o-Xylene	0.100	0.09826		mg/Kg		98	70 - 130	1	35

Surrogate	%Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	77i		18 - 738
76f-, Fluorobenzene (Surr)	78i		18 - 738

Lab Sample ID: 890-2891-A-1-H MS

Matrix: Solid

Analysis Batch: 34819

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 34597

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.07805		mg/Kg		78	70 - 130
Toluene	<0.00199	U F1	0.0998	0.06126	F1	mg/Kg		61	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.08941		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1273	F1	mg/Kg		64	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

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

Lab Sample ID: 890-2891-A-1-H MS

Matrix: Solid

Analysis Batch: 34819

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 34597

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	<0.00199	U	0.0998	0.07371		mg/Kg		74	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	784		18 - 738
764-, Fluorobenzene (Surr)	78:		18 - 738

Lab Sample ID: 890-2891-A-1-I MSD

Matrix: Solid

Analysis Batch: 34819

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 34597

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.07974		mg/Kg		79	70 - 130	2	35
Toluene	<0.00199	U F1	0.101	0.06054	F1	mg/Kg		60	70 - 130	1	35
Ethylbenzene	<0.00199	U	0.101	0.08524		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.1232	F1	mg/Kg		61	70 - 130	3	35
o-Xylene	<0.00199	U	0.101	0.07228		mg/Kg		72	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	783		18 - 738
764-, Fluorobenzene (Surr)	09		18 - 738

Lab Sample ID: MB 880-34678/5-A

Matrix: Solid

Analysis Batch: 34891

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34678

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/16/22 13:28	09/20/22 21:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/16/22 13:28	09/20/22 21:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/16/22 13:28	09/20/22 21:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/16/22 13:28	09/20/22 21:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/16/22 13:28	09/20/22 21:19	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/16/22 13:28	09/20/22 21:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	783		18 - 738	80/7i /22 73:29	80/28/22 27:50	7
764-, Fluorobenzene (Surr)	9i		18 - 738	80/7i /22 73:29	80/28/22 27:50	7

Lab Sample ID: LCS 880-34678/1-A

Matrix: Solid

Analysis Batch: 34891

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34678

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07760		mg/Kg		78	70 - 130
Toluene	0.100	0.08472		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.09373		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	0.200	0.1798		mg/Kg		90	70 - 130
o-Xylene	0.100	0.1026		mg/Kg		103	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

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

Lab Sample ID: LCS 880-34678/1-A

Matrix: Solid

Analysis Batch: 34891

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34678

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	773		18 - 738
764-, 844fluorobenzene (Surr)	91		18 - 738

Lab Sample ID: LCSD 880-34678/2-A

Matrix: Solid

Analysis Batch: 34891

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34678

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09317		mg/Kg		93	70 - 130	18	35
Toluene	0.100	0.09586		mg/Kg		96	70 - 130	12	35
Ethylbenzene	0.100	0.1123		mg/Kg		112	70 - 130	18	35
m-Xylene & p-Xylene	0.200	0.2477		mg/Kg		124	70 - 130	32	35
o-Xylene	0.100	0.1428	*+	mg/Kg		143	70 - 130	33	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	7: 7	S7C	18 - 738
764-, 844fluorobenzene (Surr)	00		18 - 738

Lab Sample ID: 890-2892-1 MS

Matrix: Solid

Analysis Batch: 34891

Client Sample ID: SS09

Prep Type: Total/NA

Prep Batch: 34678

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F1 F2	0.0998	0.01067	F1	mg/Kg		11	70 - 130
Toluene	<0.00201	U F1 F2	0.0998	0.01385	F1	mg/Kg		13	70 - 130
Ethylbenzene	<0.00201	U F1 F2	0.0998	0.01551	F1	mg/Kg		16	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.200	0.02900	F1	mg/Kg		15	70 - 130
o-Xylene	<0.00201	U *+ F1 F2	0.0998	0.01743	F1	mg/Kg		17	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	783		18 - 738
764-, 844fluorobenzene (Surr)	i 1	S7-	18 - 738

Lab Sample ID: 890-2892-1 MSD

Matrix: Solid

Analysis Batch: 34891

Client Sample ID: SS09

Prep Type: Total/NA

Prep Batch: 34678

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1 F2	0.0990	0.04386	F1 F2	mg/Kg		44	70 - 130	122	35
Toluene	<0.00201	U F1 F2	0.0990	0.04253	F1 F2	mg/Kg		42	70 - 130	102	35
Ethylbenzene	<0.00201	U F1 F2	0.0990	0.05157	F1 F2	mg/Kg		52	70 - 130	108	35
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.198	0.1069	F1 F2	mg/Kg		54	70 - 130	115	35
o-Xylene	<0.00201	U *+ F1 F2	0.0990	0.06079	F1 F2	mg/Kg		61	70 - 130	111	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	7i 2	S7C	18 - 738

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QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

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

Lab Sample ID: 890-2892-1 MSD

Matrix: Solid

Analysis Batch: 34891

Client Sample ID: SS09

Prep Type: Total/NA

Prep Batch: 34678

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
764-, 814fluorobenzene (Surr)	04		18 - 738

Lab Sample ID: MB 880-34801/5-A

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34801

Analyte	MB	MB							
	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/19/22 10:02	09/19/22 11:26	1	
Toluene	<0.00200	U	0.00200	mg/Kg		09/19/22 10:02	09/19/22 11:26	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/19/22 10:02	09/19/22 11:26	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/19/22 10:02	09/19/22 11:26	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/19/22 10:02	09/19/22 11:26	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/19/22 10:02	09/19/22 11:26	1	

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac		
4-Bromofluorobenzene (Surr)	784		18 - 738	80/70/22 7832	80/70/22 772i	7			
764-, 814fluorobenzene (Surr)	94		18 - 738	80/70/22 7832	80/70/22 772i	7			

Lab Sample ID: LCS 880-34801/1-A

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34801

Analyte	Spike	LCS	LCS					%Rec	
	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	0.100	0.08639		mg/Kg		86	70 - 130		
Toluene	0.100	0.08783		mg/Kg		88	70 - 130		
Ethylbenzene	0.100	0.09574		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene	0.200	0.2089		mg/Kg		104	70 - 130		
o-Xylene	0.100	0.1183		mg/Kg		118	70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	737	S7C	18 - 738
764-, 814fluorobenzene (Surr)	09		18 - 738

Lab Sample ID: LCSD 880-34801/2-A

Matrix: Solid

Analysis Batch: 34746

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34801

Analyte	Spike	LCSD	LCSD					%Rec	RPD	
	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.08424		mg/Kg		84	70 - 130	3	35	
Toluene	0.100	0.08924		mg/Kg		89	70 - 130	2	35	
Ethylbenzene	0.100	0.09986		mg/Kg		100	70 - 130	4	35	
m-Xylene & p-Xylene	0.200	0.2198		mg/Kg		110	70 - 130	5	35	
o-Xylene	0.100	0.1256		mg/Kg		126	70 - 130	6	35	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	729		18 - 738
764-, 814fluorobenzene (Surr)	01		18 - 738

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QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

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

Lab Sample ID: 880-18965-A-1-G MS
Matrix: Solid
Analysis Batch: 34746

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34801

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.09703		mg/Kg		97	70 - 130
Toluene	<0.00199	U	0.0998	0.09095		mg/Kg		91	70 - 130
Ethylbenzene	<0.00199	U	0.0998	0.09396		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1947		mg/Kg		98	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1099		mg/Kg		110	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	773		18 - 738						
764-, 8fluorobenzene (Surr)	78i		18 - 738						

Lab Sample ID: 880-18965-A-1-H MSD
Matrix: Solid
Analysis Batch: 34746

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34801

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0996	0.08949		mg/Kg		90	70 - 130	8	35
Toluene	<0.00199	U	0.0996	0.08282		mg/Kg		83	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.0996	0.08351		mg/Kg		84	70 - 130	12	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1723		mg/Kg		86	70 - 130	12	35
o-Xylene	<0.00199	U	0.0996	0.09731		mg/Kg		98	70 - 130	12	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	780		18 - 738								
764-, 8fluorobenzene (Surr)	78:		18 - 738								

Lab Sample ID: MB 880-34854/5-A
Matrix: Solid
Analysis Batch: 34891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34854

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		09/19/22 14:55	09/20/22 10:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		09/19/22 14:55	09/20/22 10:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		09/19/22 14:55	09/20/22 10:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		09/19/22 14:55	09/20/22 10:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		09/19/22 14:55	09/20/22 10:44	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		09/19/22 14:55	09/20/22 10:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits					
4-Bromofluorobenzene (Surr)	09		18 - 738					
764-, 8fluorobenzene (Surr)	07		18 - 738					

QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

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

Lab Sample ID: MB 880-34128/1-A

Matrix: Solid

Analysis Batch: 34048

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34128

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		09/09/22 16:47	09/09/22 18:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/09/22 16:47	09/09/22 18:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/09/22 16:47	09/09/22 18:37	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
7-h chloroot ane	733	S7C	18 - 738			80/80/22 7i 51	80/80/22 7951	7
o-Terpcenyl	73i	S7C	18 - 738			80/80/22 7i 51	80/80/22 7951	7

Lab Sample ID: LCS 880-34128/2-A

Matrix: Solid

Analysis Batch: 34048

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	928.9		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	904.2		mg/Kg		90	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
7-h chloroot ane	733	S7C	18 - 738				
o-Terpcenyl	737	S7C	18 - 738				

Lab Sample ID: LCSD 880-34128/3-A

Matrix: Solid

Analysis Batch: 34048

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34128

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	885.5		mg/Kg		89	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	904.8		mg/Kg		90	70 - 130	0	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
7-h chloroot ane	737	S7C	18 - 738						
o-Terpcenyl	737	S7C	18 - 738						

Lab Sample ID: 890-2892-5 MS

Matrix: Solid

Analysis Batch: 34048

Client Sample ID: PH01

Prep Type: Total/NA

Prep Batch: 34128

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	996	942.0		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	910.0		mg/Kg		91	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

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

Lab Sample ID: 890-2892-5 MS

Matrix: Solid

Analysis Batch: 34048

Client Sample ID: PH01

Prep Type: Total/NA

Prep Batch: 34128

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
7-h chloroot ane	787		18 - 738
o-Terpcenyl	02		18 - 738

Lab Sample ID: 890-2892-5 MSD

Matrix: Solid

Analysis Batch: 34048

Client Sample ID: PH01

Prep Type: Total/NA

Prep Batch: 34128

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	985.4		mg/Kg		96	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	984.5		mg/Kg		99	70 - 130	8	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
7-h chloroot ane	777		18 - 738								
o-Terpcenyl	01		18 - 738								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34100/1-A

Matrix: Solid

Analysis Batch: 34369

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			09/13/22 12:02	1

Lab Sample ID: LCS 880-34100/2-A

Matrix: Solid

Analysis Batch: 34369

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.2		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-34100/3-A

Matrix: Solid

Analysis Batch: 34369

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	240.3		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 890-2892-8 MS

Matrix: Solid

Analysis Batch: 34369

Client Sample ID: PH03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	223		249	473.2		mg/Kg		100	90 - 110

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QC Sample Results

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2892-8 MSD							Client Sample ID: PH03					
Matrix: Solid							Prep Type: Soluble					
Analysis Batch: 34369												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	223		249	472.5		mg/Kg		100	90 - 110	0	20	

QC Association Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

GC VOA

Prep Batch: 290Lb

Lab Sample ID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-3	PH05	Total/NA	Solid	5035	
890-2892-4	PH01	Total/NA	Solid	5035	
890-2892-5	PH01	Total/NA	Solid	5035	
890-2892-6	PH02	Total/NA	Solid	5035	
890-2892-7	PH02	Total/NA	Solid	5035	
890-2892-8	PH03	Total/NA	Solid	5035	
890-2892-9	PH03	Total/NA	Solid	5035	
890-2892-10	PH04	Total/NA	Solid	5035	
890-2892-11	PH04	Total/NA	Solid	5035	
MB 880-34597/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34597/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34597/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2891-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
890-2891-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 298b

Lab Sample ID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-1	SS09	Total/NA	Solid	5035	
890-2892-2	PH05	Total/NA	Solid	5035	
MB 880-34678/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34678/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34678/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2892-1 MS	SS09	Total/NA	Solid	5035	
890-2892-1 MSD	SS09	Total/NA	Solid	5035	

Analysis Batch: 29b98

Lab Sample ID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-4	PH01	Total/NA	Solid	8021B	34597
890-2892-5	PH01	Total/NA	Solid	8021B	34597
890-2892-6	PH02	Total/NA	Solid	8021B	34597
890-2892-7	PH02	Total/NA	Solid	8021B	34597
890-2892-8	PH03	Total/NA	Solid	8021B	34597
890-2892-9	PH03	Total/NA	Solid	8021B	34597
890-2892-10	PH04	Total/NA	Solid	8021B	34597
890-2892-11	PH04	Total/NA	Solid	8021B	34597
MB 880-34597/5-A	Method Blank	Total/NA	Solid	8021B	34597
MB 880-34801/5-A	Method Blank	Total/NA	Solid	8021B	34801
LCS 880-34597/1-A	Lab Control Sample	Total/NA	Solid	8021B	34597
LCS 880-34801/1-A	Lab Control Sample	Total/NA	Solid	8021B	34801
LCSD 880-34597/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34597
LCSD 880-34801/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34801
880-18965-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	34801
880-18965-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34801

Prep Batch: 29() 7

Lab Sample ID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
MB 880-34801/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34801/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34801/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18965-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-18965-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

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QC Association Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

GC VOA

Analysis Batch: 29(7L

I al SampID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-3	PH05	Total/NA	Solid	8021B	34597
MB 880-34597/5-A	Method Blank	Total/NA	Solid	8021B	34597
LCS 880-34597/1-A	Lab Control Sample	Total/NA	Solid	8021B	34597
LCSD 880-34597/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34597
890-2891-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	34597
890-2891-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34597

Prep Batch: 29(09

I al SampID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
MB 880-34854/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 29(b8

I al SampID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-1	SS09	Total/NA	Solid	Total BTEX	
890-2892-2	PH05	Total/NA	Solid	Total BTEX	
890-2892-3	PH05	Total/NA	Solid	Total BTEX	
890-2892-4	PH01	Total/NA	Solid	Total BTEX	
890-2892-5	PH01	Total/NA	Solid	Total BTEX	
890-2892-6	PH02	Total/NA	Solid	Total BTEX	
890-2892-7	PH02	Total/NA	Solid	Total BTEX	
890-2892-8	PH03	Total/NA	Solid	Total BTEX	
890-2892-9	PH03	Total/NA	Solid	Total BTEX	
890-2892-10	PH04	Total/NA	Solid	Total BTEX	
890-2892-11	PH04	Total/NA	Solid	Total BTEX	

Analysis Batch: 29(L7

I al SampID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-1	SS09	Total/NA	Solid	8021B	34678
890-2892-2	PH05	Total/NA	Solid	8021B	34678
MB 880-34678/5-A	Method Blank	Total/NA	Solid	8021B	34678
MB 880-34854/5-A	Method Blank	Total/NA	Solid	8021B	34854
LCS 880-34678/1-A	Lab Control Sample	Total/NA	Solid	8021B	34678
LCSD 880-34678/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34678
890-2892-1 MS	SS09	Total/NA	Solid	8021B	34678
890-2892-1 MSD	SS09	Total/NA	Solid	8021B	34678

GC Semi VOA

Analysis Batch: 29(9(

I al SampID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-1	SS09	Total/NA	Solid	8015B NM	34128
890-2892-2	PH05	Total/NA	Solid	8015B NM	34128
890-2892-3	PH05	Total/NA	Solid	8015B NM	34128
890-2892-4	PH01	Total/NA	Solid	8015B NM	34128
890-2892-5	PH01	Total/NA	Solid	8015B NM	34128
890-2892-6	PH02	Total/NA	Solid	8015B NM	34128
890-2892-7	PH02	Total/NA	Solid	8015B NM	34128
890-2892-8	PH03	Total/NA	Solid	8015B NM	34128
890-2892-9	PH03	Total/NA	Solid	8015B NM	34128
890-2892-10	PH04	Total/NA	Solid	8015B NM	34128
890-2892-11	PH04	Total/NA	Solid	8015B NM	34128

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QC Association Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

GC Semi VOA 5Continue64

Analysis Batch: 29) 9(5Continue64

Label Sample ID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
MB 880-34128/1-A	Method Blank	Total/NA	Solid	8015B NM	34128
LCS 880-34128/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34128
LCSD 880-34128/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34128
890-2892-5 MS	PH01	Total/NA	Solid	8015B NM	34128
890-2892-5 MSD	PH01	Total/NA	Solid	8015B NM	34128

Prep Batch: 297H

Label Sample ID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-1	SS09	Total/NA	Solid	8015NM Prep	
890-2892-2	PH05	Total/NA	Solid	8015NM Prep	
890-2892-3	PH05	Total/NA	Solid	8015NM Prep	
890-2892-4	PH01	Total/NA	Solid	8015NM Prep	
890-2892-5	PH01	Total/NA	Solid	8015NM Prep	
890-2892-6	PH02	Total/NA	Solid	8015NM Prep	
890-2892-7	PH02	Total/NA	Solid	8015NM Prep	
890-2892-8	PH03	Total/NA	Solid	8015NM Prep	
890-2892-9	PH03	Total/NA	Solid	8015NM Prep	
890-2892-10	PH04	Total/NA	Solid	8015NM Prep	
890-2892-11	PH04	Total/NA	Solid	8015NM Prep	
MB 880-34128/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34128/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34128/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2892-5 MS	PH01	Total/NA	Solid	8015NM Prep	
890-2892-5 MSD	PH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29Hb0

Label Sample ID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-1	SS09	Total/NA	Solid	8015 NM	
890-2892-2	PH05	Total/NA	Solid	8015 NM	
890-2892-3	PH05	Total/NA	Solid	8015 NM	
890-2892-4	PH01	Total/NA	Solid	8015 NM	
890-2892-5	PH01	Total/NA	Solid	8015 NM	
890-2892-6	PH02	Total/NA	Solid	8015 NM	
890-2892-7	PH02	Total/NA	Solid	8015 NM	
890-2892-8	PH03	Total/NA	Solid	8015 NM	
890-2892-9	PH03	Total/NA	Solid	8015 NM	
890-2892-10	PH04	Total/NA	Solid	8015 NM	
890-2892-11	PH04	Total/NA	Solid	8015 NM	

/ PI C1C

Leach Batch: 297))

Label Sample ID	Client Sample ID	Prep type	d atri3	d etho6	Prep Batch
890-2892-1	SS09	Soluble	Solid	DI Leach	
890-2892-2	PH05	Soluble	Solid	DI Leach	
890-2892-3	PH05	Soluble	Solid	DI Leach	
890-2892-4	PH01	Soluble	Solid	DI Leach	
890-2892-5	PH01	Soluble	Solid	DI Leach	
890-2892-6	PH02	Soluble	Solid	DI Leach	
890-2892-7	PH02	Soluble	Solid	DI Leach	
890-2892-8	PH03	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

/ PI C1C 5Continue64

Leach Batch: 297)) 5Continue64

Label Sample ID	Client Sample ID	Prep type	Material	Method	Prep Batch
890-2892-9	PH03	Soluble	Solid	DI Leach	
890-2892-10	PH04	Soluble	Solid	DI Leach	
890-2892-11	PH04	Soluble	Solid	DI Leach	
MB 880-34100/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34100/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34100/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2892-8 MS	PH03	Soluble	Solid	DI Leach	
890-2892-8 MSD	PH03	Soluble	Solid	DI Leach	

Analysis Batch: 2928L

Label Sample ID	Client Sample ID	Prep type	Material	Method	Prep Batch
890-2892-1	SS09	Soluble	Solid	300.0	34100
890-2892-2	PH05	Soluble	Solid	300.0	34100
890-2892-3	PH05	Soluble	Solid	300.0	34100
890-2892-4	PH01	Soluble	Solid	300.0	34100
890-2892-5	PH01	Soluble	Solid	300.0	34100
890-2892-6	PH02	Soluble	Solid	300.0	34100
890-2892-7	PH02	Soluble	Solid	300.0	34100
890-2892-8	PH03	Soluble	Solid	300.0	34100
890-2892-9	PH03	Soluble	Solid	300.0	34100
890-2892-10	PH04	Soluble	Solid	300.0	34100
890-2892-11	PH04	Soluble	Solid	300.0	34100
MB 880-34100/1-A	Method Blank	Soluble	Solid	300.0	34100
LCS 880-34100/2-A	Lab Control Sample	Soluble	Solid	300.0	34100
LCSD 880-34100/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34100
890-2892-8 MS	PH03	Soluble	Solid	300.0	34100
890-2892-8 MSD	PH03	Soluble	Solid	300.0	34100

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Lab Chronicle

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: SS09
Date Collected: 09/07/22 10:05
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-1
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	34678	09/16/22 13:28	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34891	09/20/22 21:41	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 22:34	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34369	09/13/22 12:41	CH	EET MID

Client Sample ID: PH05
Date Collected: 09/07/22 10:30
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-2
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			4.99 g	5 mL	34678	09/16/22 13:28	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34891	09/20/22 22:01	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 22:13	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34369	09/13/22 12:46	CH	EET MID

Client Sample ID: PH05
Date Collected: 09/06/22 11:00
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34819	09/19/22 15:44	MR	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 22:56	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	34369	09/13/22 13:01	CH	EET MID

Client Sample ID: PH01
Date Collected: 09/06/22 10:15
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/19/22 23:44	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH01
Date Collected: 09/06/22 10:15
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 21:51	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34369	09/13/22 13:05	CH	EET MID

Client Sample ID: PH01
Date Collected: 09/06/22 10:20
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/20/22 00:05	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 19:42	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34369	09/13/22 13:10	CH	EET MID

Client Sample ID: PH02
Date Collected: 09/06/22 10:00
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/20/22 00:25	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 23:17	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34369	09/13/22 13:15	CH	EET MID

Client Sample ID: PH02
Date Collected: 09/06/22 10:05
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/20/22 00:46	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 20:46	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH02
Date Collected: 09/06/22 10:05
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	34369	09/13/22 13:20	CH	EET MID

Client Sample ID: PH03
Date Collected: 09/06/22 09:25
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/20/22 01:06	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	34048	09/09/22 23:39	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34369	09/13/22 13:25	CH	EET MID

Client Sample ID: PH03
Date Collected: 09/06/22 09:45
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/20/22 01:26	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/10/22 00:22	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	34369	09/13/22 13:40	CH	EET MID

Client Sample ID: PH04
Date Collected: 09/06/22 09:05
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/20/22 01:46	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 21:08	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	34369	09/13/22 13:44	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Client Sample ID: PH04
Date Collected: 09/06/22 09:20
Date Received: 09/08/22 08:15

Lab Sample ID: 890-2892-11
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	34597	09/15/22 14:33	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34746	09/20/22 03:09	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			34876	09/19/22 16:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			34275	09/12/22 11:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	34128	09/09/22 16:47	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34048	09/09/22 21:30	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	34100	09/09/22 12:23	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	34369	09/13/22 13:59	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
1 Pørej tð ite: ESa 490V

Job ID: 890-2892-4
/ DU: 0GD2035008

Laboratory: Eurofins Midland

a nless ot7ePh ise notewd, ll , n, lytes foPt7is l, boP, toPy h ePè j ovePèw unwePe, j 7 , j j Pèwit, tiong eRtíj , tion beloh .

Authority	Program	Identification Number	Expiration Date
Tex, s	NELA1	T40V50VW00-22-2V	06-QD-2G
T7e folloh ing , n, lytes , Pè inj luwewin t7is PèpoRdbut t7e l, boP, toPy is not j eRtífiewby t7e govePhing , ut7oRty. T7is list m, y inj luwe , n, lytes foPh 7ij 7 t7e , genj y woes not offePj eRtíj , tion.			
An, lysis Met7ow	1 Pèp Met7ow	M, tRk	An, lyte
8043 NM		/ oliw	Tot, l T1H
Tot, l BTEX		/ oliw	Tot, l BTEX

Method Summary

1 0 en t eEoGu
7 Rri j rmlri : t / a 490V

Job ID: 890-2892-4
mDS: 002035008

Method	Method Description	Protocol	Laboratory
80246	/ oGnC ORgBelj 1 ou posedE (S1)	mU 8VW	t t XNID
XorBC6Xt A	XorBC6Xt A 1 BQsGrloe	XMT mO7	t t XNID
8043 LN	Dli Ei CRBegi ORgBelj E (DRO) (S1)	mU 8VW	t t XNID
80436 LN	Dli Ei CRBegi ORgBelj E (DRO) (S1)	mU 8VW	t t XNID
G00.0	MeloeE, loe 1 hRu BrogRbphy	N1 MU U	t t XNID
30G3	1 0E d myEri u 7sRgi Bed XFBp	mU 8VW	t t XNID
8043LN 7R p	Nlj Rbi xrfBj rloe	mU 8VW	t t XNID
DI Ti Bj h	Di loelzi d U Bri PTi Bj hleg 7Rj i dsR	MmXN	t t XNID

Protocol References:

MmXN = MmXN Ieri RbRloeBC
N1 MU U = "Ni rhodEFoP1 hi u lj BQMeBQBE Of U Bri PMed U BEri E", t 7M-V00d/-59-020, NBP h 498GMed msbE qsi enRi viBoeE
mU 8VW= "Xi EnNi rhodEFoPt vBSBrieg moQl U BEri , 7hyBj BCl hi u lj BQNi rhodE", XhIRt t dlrlloe, L ovi u bi P498VWMed IrEapdBri E
XMT mO7 = Xi EtMu i Rj B TBboRbroR E, mRBedBRl Opi RBrieg 7Rj i dsR

Laboratory References:

t t XNID = t sRfleENIdBed, 4244 U . FGRdBMi , NIdBed, XA 59504, Xt T (VG2)50V-3VW0

Sample Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2892-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2892-1	SS09	Solid	09/07/22 10:05	09/08/22 08:15	0.5
890-2892-2	PH05	Solid	09/07/22 10:30	09/08/22 08:15	1
890-2892-3	PH05	Solid	09/06/22 11:00	09/08/22 08:15	2
890-2892-4	PH01	Solid	09/06/22 10:15	09/08/22 08:15	1
890-2892-5	PH01	Solid	09/06/22 10:20	09/08/22 08:15	2
890-2892-6	PH02	Solid	09/06/22 10:00	09/08/22 08:15	1
890-2892-7	PH02	Solid	09/06/22 10:05	09/08/22 08:15	2
890-2892-8	PH03	Solid	09/06/22 09:25	09/08/22 08:15	1
890-2892-9	PH03	Solid	09/06/22 09:45	09/08/22 08:15	2
890-2892-10	PH04	Solid	09/06/22 09:05	09/08/22 08:15	1
890-2892-11	PH04	Solid	09/06/22 09:20	09/08/22 08:15	2



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1286
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 National Parks Hwy.	Address:	3122 Natl Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad NM 88220
Phone:	303-517-8437	Email:	kjennings@ensolum.com

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

Project Name:	EVU 1904	Turn Around	Pro. Code	ANALYSIS REQUEST	Preservative Codes
Project Number:	03D2057008	☒ Routine ☐ Rush			None: NO DI Water: H ₂ O
Project Location:	Lea County NM	Due Date:	5 Day TAT		Cool: Cool MeOH: Me
Sampler's Name:	Liz Chell	TAT starts the day received by the lab, if received by 4:30pm			HCL: HC HNO ₃ : HN
PO #:	N/A	Wet Ice:	Yes No		H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: ☒ Yes No	Thermometer ID:	NM007		H ₃ PO ₄ : HP
Samples Received Intact:	Yes No	Correction Factor:	-0.2		NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No	Temperature Reading:	12.2		Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No	Corrected Temperature:	12.0		Zn Acetate+NaOH: Zn
Total Containers:					NaOH+Ascorbic Acid: SAPC



890-2892 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS09	S	9/7/2022	1005	0.5'	Comp	1	X	X	X	Incident Number: NAPP2210950771
PH05	S	9/7/2022	1030	1'	Grab/	1	X	X	X	
PH05	S	9/7/2022	1100	2'	Grab/	1	X	X	X	
PH01	S	9/6/2022	1015	1'	Grab/	1	X	X	X	
PH01	S	9/6/2022	1020	2'	Grab/	1	X	X	X	
PH02	S	9/6/2022	1000	1'	Grab/	1	X	X	X	
PH02	S	9/6/2022	1005	2'	Grab/	1	X	X	X	
PH03	S	9/6/2022	925	1'	Grab/	1	X	X	X	
PH03	S	9/6/2022	945	2'	Grab/	1	X	X	X	
PH04	S	9/6/2022	905	1'	Grab/	1	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9.8.2022 815			



Chain of Custody

Houston, TX (281) 240-8200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No.:

Page 2 of 2

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 National Parks Hwy.	Address:	3122 Natl. Parks Hwy
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad NM 88220
Phone:	303-517-8437	Email:	kjennings@ensolum.com

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

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2892-4

1SD Number: 0GS2035008

Login Number: 2892
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
7Te hoolers husto' d seylai, f resentaits intyhtp	7rue	
1ymf le husto' d seylsai, f resentayre intyhtp	7rue	
7Te hooler or symf les ' o not yf f eyr to Ty. e been homf romise' or tymf ere' v itTp	7rue	
1ymf les v ere rehei. e' on ihep	7rue	
Cooler 7emf eryture is yhhf tyblep	7rue	
Cooler 7emf eryture is rehor' e' p	7rue	
CwC is f resenp	7rue	
CwC is ,ille' out in inOyn' lekiblep	7rue	
CwC is ,ille' out v itT yll f ertinent in,ormytionp	7rue	
g tTe l iel' 1ymf lers nyme f resen on CwCF	7rue	
7Tere yre no ' ishref ynhies betv een tTe hontyiners rehei. e' yn' tTe CwCp	7rue	
1ymf les yre rehei. e' v itTin ? ol' ink 7ime H(hlu' ink tests v itT imme' iyte ? 7sx	7rue	
1ymf le hontyiners Ty. e lekible lybelsp	7rue	
Contyiners yre not broQen or leyQnkp	7rue	
1ymf le hollehtion ' yte)times yre f ro. i' e' p	7rue	
/ f f rof riyte symf le hontyiners yre use' p	7rue	
1ymf le bottles yre homf leteld ,ille' p	7rue	
1ymf le Areser. ytion Peri,ie' p	NY	
7Tere is su,,ihient . olp,or yll reVueste' ynyldsesainhlpyn d reVueste' q 1)q 1 Ss	7rue	
Contyiners reVuirink Mro Tey' sf yhe Ty. e no Tey' sf yhe or bubble is z<mm H)6"xp	NY	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2892-4

1SD Number: 0GS2035008

Login Number: 2892

List Source: Eurofins Midland

List Number: 2

List Creation: 09/09/22 11:04 AM

Creator: Rodriguez, Leticia

Question	Answer	Comment
7Te hoolers husto' d seylai, f resentaits intyhtp	NY	
1ymf le husto' d seylsai, f resentayre intyhtp	NY	
7Te hooler or symf les ' o not yf f eyr to Ty. e been homf romise' or tymf ere' v itTp	7rue	
1ymf les v ere rehei. e' on ihep	7rue	
Cooler 7emf eryture is yhhf tyblep	7rue	
Cooler 7emf eryture is rehor' e' p	7rue	
CwC is f resenp	7rue	
CwC is ,ille' out in inOyn' lekiblep	7rue	
CwC is ,ille' out v itT yll f ertinent in,ormytionp	7rue	
g tTe l iel' 1ymf lers nyme f resenp on CwCF	7rue	
7Tere yre no ' ishref ynhies betv een tTe hontyiners rehei. e' yn' tTe CwCp	7rue	
1ymf les yre rehei. e' v itTin ? ol' ink 7ime h(hlu' ink tests v itT imme' iyte ? 7sx	7rue	
1ymf le hontyiners Ty. e lekible lybelsp	7rue	
Contyiners yre not broQen or leyQnkp	7rue	
1ymf le hollehtion ' yte)times yre f ro. i' e' p	7rue	
/ f f rof riye symf le hontyiners yre use' p	7rue	
1ymf le bottles yre homf leteld ,ille' p	7rue	
1ymf le Areser. ytion Peri,ie' p	NY	
7Tere is su,,ihient . olp,or yll reVueste' ynyldsesainhlpnynd reVueste' q 1)q 1 Ss	7rue	
Contyiners reVuirink Mro Tey' sf yhe Ty. e no Tey' sf yhe or bubble is z<mm H)6"xp	NY	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2893-1

Laboratory Sample Delivery Group: 03D2057008

Client Project/Site: EVU 1904

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

9/19/2022 10:12:58 AM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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

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

Client: Ensolum
Project/Site: EVU 1904

Laboratory Job ID: 890-2893-1
SDG: 03D2057008

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Definitions/Glossary

Client: Ensolum
7 Rørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	* CS LnRøP* CSD is outsiRe Lj j extLnj e limitsdlo. biLseRF
Ml	v S LnRøPv SD Røj oyeP+ egj eeRs j ontRl limitsF
S1,	SuRøhLte Røj oyeP+ egj eeRs j ontRl limitsdwhwbiLseRF
a	InRj Ltes tve LnLi+te . Ls LnLi+zeR foPbut not Retej teRF

GC Semi VOA

Qualifier	Qualifier Description
S1,	SuRøhLte Røj oyeP+ egj eeRs j ontRl limitsdwhwbiLseRF
a	InRj Ltes tve LnLi+te . Ls LnLi+zeR foPbut not Retej teRF

HPLC/IC

Qualifier	Qualifier Description
Ml	v S LnRøPv SD Røj oyeP+ egj eeRs j ontRl limitsF
a	InRj Ltes tve LnLi+te . Ls LnLi+zeR foPbut not Retej teRF

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	* isteRunRøPtwe "D" j oolumn to ResihnLte twLt tve Result is RøxoReRon L Rø+ . eihwt bLsis
p %	7eRj ent %ej oyeP+
CM	ContLins MRee *iquiR
CMa	Colon+ MøPninh a nit
CNM	ContLins No MRee *iquiR
DE%	Duxlij Lte ERøP%Ltio (noPnLizeRLbsolute RiffeRenj e)
Dil Mj	Dilution Mj toP
D*	Detej tion * imit (DoDøDOE)
D* d%Ad%EdIN	InRj Ltes L Dilutiond%e-LnLi+sisd%e-egtRj tiondoPLRRTionLI InitilI metLlisdLnion LnLi+sis of tve sLmxle
D* C	Dej ision * eyel Conj entRtion (%LRøj wemistP+)
ED*	EstimLteR Detej tion * imit (Diogin)
* OD	* imit of Detej tion (DoDøDOE)
* OQ	* imit of QuLntitLtion (DoDøDOE)
v C*	E7A Røj ommenRøR "v Lgimum ContLminLnt * eyel"
v DA	v inimum Detej tLble Aj tiyit+ (%LRøj wemistP+)
v DC	v inimum Detej tLble Conj entRtion (%LRøj wemistP+)
v D*	v etwoR Detej tion * imit
v *	v inimum * eyel (Diogin)
v 7N	v ost 7 RøbLble NumbeP
v Q*	v etwoR QuLntitLtion * imit
NC	Not CLlj ulLteR
ND	Not Detej teRLt tve RøxoRinh limit (oPv D* oPED* if swo. n)
NEG	NehLtiye cAbsent
7 OS	7 ositiye c7 Røsent
7 Q*	7 Rj tij LI QuLntitLtion * imit
7 %ES	7 Røsumxtiye
QC	QuLlit+ ContRl
%E%	%eLtiye ERøP%Ltio (%LRøj wemistP+)
%*	%øxoRinh * imit oP%equesteR* imit (%LRøj wemistP+)
%7D	%eLtiye 7eRj ent DiffeRenj edL meLsuRe of tve RøLtiye RiffeRenj e bet. een t. o xoints
TEM	Togij it+ EquiyLlent Mj toP(Diogin)
TEQ	Togij it+ EquiyLlent Quotient (Diogin)
TNTC	Too NumeRous To Count

Case Narrative

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2893-1
SDG: 03D2057008

Job ID: 890-2893-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2893-1

Receipt

The samples were received on 9/8/2022 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.0°C

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: FS01 (890-2893-1), FS02 (890-2893-2), FS03 (890-2893-3), FS04 (890-2893-4), FS05 (890-2893-5), FS06 (890-2893-6), FS07 (890-2893-7), FS08 (890-2893-8), FS09 (890-2893-9) and FS10 (890-2893-10). This does not meet regulatory requirements. The client was contacted regarding this issue, and the laboratory was instructed to <CHOOSE_ONE> proceed with/cancel analysis.

890-2893

Temp Blank 6.2 c/ 6.0 c client says they were in the fridge overnight and was taken out this am- would like to proceed with processing.

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34598 and analytical batch 880-34744 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-34128 and analytical batch 880-34048 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-34128/2-A) and (LCSD 880-34128/3-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-34102 and analytical batch 880-34352 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
70rej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS01

Lab Sample ID: 890-2893-1

Date Collected: 09/06/22 13:45

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
UenBene	z0-00202	a . 1	0-00202	mgdKg	-	09d13d22 1V:V4	09d18d22 15:V0	1
Toluene	z0-00202	a h . 1	0-00202	mgdKg	-	09d13d22 1V:V4	09d18d22 15:V0	1
EtyXbenBene	z0-00202	a . 1	0-00202	mgdKg	-	09d13d22 1V:V4	09d18d22 15:V0	1
m-&Xlene p , -&Xlene	z0-00V04	a . 1	0-00V04	mgdKg	-	09d13d22 1V:V4	09d18d22 15:V0	1
o-&Xlene	z0-00202	a . 1	0-00202	mgdKg	-	09d13d22 1V:V4	09d18d22 15:V0	1
&Xlenes6Tot* l	z0-00V04	a . 1	0-00V04	mgdKg	-	09d13d22 1V:V4	09d18d22 15:V0	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	09/16/22 14:43	09/18/22 17:40	1
1,4-Difluorobenzene (Surr)	98		70 - 130	09/16/22 14:43	09/18/22 17:40	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tot* l UTE&	z0-00V04	a	0-00V04	mgdKg	-		09d19d22 09:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	83.3		V9-0	mgdKg	-		09d12d22 10:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
G* soline F* nge f Rg* nij s	zV9-0	a	V9-0	mgdKg	-	09d09d22 1QV5	09d10d22 00:VW	1
dGFf RCO-C10								
Diesel Range Organics (Over C10-C28)	83.3		V9-0	mgdKg	-	09d09d22 1QV5	09d10d22 00:VW	1
f ll F* nge f Rg* nij s df (ePC28-C4CR	zV9-0	a	V9-0	mgdKg	-	09d09d22 1QV5	09d10d22 00:VW	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	09/09/22 17:47	09/10/22 00:44	1
o-peryhen5l	94		70 - 130	09/09/22 17:47	09/10/22 00:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	613	F1	V-09	mgdKg	-		09d14d22 09:12	1

Client Sample ID: FS02

Lab Sample ID: 890-2893-2

Date Collected: 09/06/22 13:50

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
UenBene	z0-00200	a	0-00200	mgdKg	-	09d13d22 1V:V4	09d18d22 18:01	1
Toluene	z0-00200	a h-	0-00200	mgdKg	-	09d13d22 1V:V4	09d18d22 18:01	1
EtyXbenBene	z0-00200	a	0-00200	mgdKg	-	09d13d22 1V:V4	09d18d22 18:01	1
m-&Xlene p , -&Xlene	z0-00499	a	0-00499	mgdKg	-	09d13d22 1V:V4	09d18d22 18:01	1
o-&Xlene	z0-00200	a	0-00200	mgdKg	-	09d13d22 1V:V4	09d18d22 18:01	1
&Xlenes6Tot* l	z0-00499	a	0-00499	mgdKg	-	09d13d22 1V:V4	09d18d22 18:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	09/16/22 14:43	09/18/22 18:01	1

EuRjns C* Rsb* v

Client Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS02

Lab Sample ID: 890-2893-2

Date Collected: 09/06/22 13:50

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	92		70 - 130	09/16/22 14:43	09/18/22 18:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tot* I UTE&	z0-00499	a	0-00499	mgdKg			09d9d22 09:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	159		30-0	mgdKg			09d12d22 10:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
G* soline F* nge f Rg* nij s dGFf RCO-C10	z30-0	a	30-0	mgdKg		09d09d22 1QV5	09d10d22 01:00	1
Diesel Range Organics (Over C10-C28)	108		30-0	mgdKg		09d09d22 1QV5	09d10d22 01:00	1
Oil Range Organics (Over C28-C36)	50.5		30-0	mgdKg		09d09d22 1QV5	09d10d22 01:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			09/09/22 1T:47	09/10/22 01:0T	1
o-peryhen5I	93		70 - 130			09/09/22 1T:47	09/10/22 01:0T	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1430		23-2	mgdKg			09d14d22 09:V1	3

Client Sample ID: FS03

Lab Sample ID: 890-2893-3

Date Collected: 09/06/22 13:55

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
UenBene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 18:21	1
Toluene	z0-00199	a h-	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 18:21	1
EtyXbenBene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 18:21	1
m-&Xene p , -&Xene	z0-00498	a	0-00498	mgdKg		09d13d22 1V:V4	09d18d22 18:21	1
o-&Xene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 18:21	1
&Xenes6Tot* I	z0-00498	a	0-00498	mgdKg		09d13d22 1V:V4	09d18d22 18:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			09/16/22 14:43	09/18/22 18:21	1
1,4-Difluorobenzene (Surr)	100		70 - 130			09/16/22 14:43	09/18/22 18:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tot* I UTE&	z0-00498	a	0-00498	mgdKg			09d9d22 09:32	1

EuR)jns C* Rsb* v

Client Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS03
Date Collected: 09/06/22 13:55
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-3
Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	529		V9-Ø	mgdKg	-		09d12d22 10:21	1	
Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
G* soline F* nge f Rg* nij s	zV9-Ø	a	V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 01:25	1	
dGFf RCOC10									
Diesel Range Organics (Over C10-C28)	368		V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 01:25	1	
Oil Range Organics (Over C28-C36)	161		V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 01:25	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	99		70 - 130			09/09/22 1T:47	09/10/22 01:27	1	
o-peryhen5l	92		70 - 130			09/09/22 1T:47	09/10/22 01:27	1	
Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1120		23d	mgdKg	-		09d14d22 09:VO	3	

Client Sample ID: FS04
Date Collected: 09/06/22 14:00
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
UenBene	z0d00200	a	0d00200	mgdKg	-	09d13d22 1V:V4	09d18d22 18:V2	1	
Toluene	z0d00200	a h-	0d00200	mgdKg	-	09d13d22 1V:V4	09d18d22 18:V2	1	
EtyXbenBene	z0d00200	a	0d00200	mgdKg	-	09d13d22 1V:V4	09d18d22 18:V2	1	
m-Xlene p , -Xlene	z0d00V01	a	0d00V01	mgdKg	-	09d13d22 1V:V4	09d18d22 18:V2	1	
o-Xlene	z0d00200	a	0d00200	mgdKg	-	09d13d22 1V:V4	09d18d22 18:V2	1	
Xlenes6Tot* l	z0d00V01	a	0d00V01	mgdKg	-	09d13d22 1V:V4	09d18d22 18:V2	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	110		70 - 130			09/16/22 14:43	09/18/22 18:42	1	
1,4-Difluorobenzene (Surr)	89		70 - 130			09/16/22 14:43	09/18/22 18:42	1	
Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Tot* l UTE&	z0d00V01	a	0d00V01	mgdKg	-		09d19d22 09:32	1	
Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	455		V9-Ø	mgdKg	-		09d12d22 10:21	1	
Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
G* soline F* nge f Rø* nij s	zV9-Ø	a	V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 01:V9	1	
dGFf RCOC10									
Diesel Range Organics (Over C10-C28)	310		V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 01:V9	1	

EuRøjns C* Rsb* v

Client Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS04
Date Collected: 09/06/22 14:00
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-4
Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Oil Range Organics (Over C28-C36)	145		V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 01:V9	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	99		70 - 130			09/09/22 1T:47	09/10/22 01:49	1	
o-peryhen5l	90		70 - 130			09/09/22 1T:47	09/10/22 01:49	1	
Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1020		23d0	mgdKg	-		09d14d22 09:31	3	

Client Sample ID: FS05
Date Collected: 09/06/22 14:05
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
UenBene	z0d00201	a	0d00201	mgdKg	-	09d13d22 1V:V4	09d18d22 19:02	1	
Toluene	z0d00201	a h-	0d00201	mgdKg	-	09d13d22 1V:V4	09d18d22 19:02	1	
EtyXbenBene	z0d00201	a	0d00201	mgdKg	-	09d13d22 1V:V4	09d18d22 19:02	1	
m-&Xlene p , -&Xlene	z0d00V02	a	0d00V02	mgdKg	-	09d13d22 1V:V4	09d18d22 19:02	1	
o-&Xlene	z0d00201	a	0d00201	mgdKg	-	09d13d22 1V:V4	09d18d22 19:02	1	
&Xlenes6Tot* l	z0d00V02	a	0d00V02	mgdKg	-	09d13d22 1V:V4	09d18d22 19:02	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	114		70 - 130			09/16/22 14:43	09/18/22 19:02	1	
1,4-Difluorobenzene (Surr)	97		70 - 130			09/16/22 14:43	09/18/22 19:02	1	

Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Tot* l UTE&	z0d00V02	a	0d00V02	mgdKg	-		09d19d22 09:32	1	

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	534		V9-Ø	mgdKg	-		09d12d22 10:21	1	

Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
G* soline F* nge f Rg* nij s	zV9-Ø	a	V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 02:10	1	
dGFf RCO-C10									
Diesel Range Organics (Over C10-C28)	370		V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 02:10	1	
Oil Range Organics (Over C28-C36)	164		V9-Ø	mgdKg	-	09d09d22 1QV5	09d10d22 02:10	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	98		70 - 130			09/09/22 1T:47	09/10/22 02:10	1	
o-peryhen5l	89		70 - 130			09/09/22 1T:47	09/10/22 02:10	1	

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Client Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS05
Date Collected: 09/06/22 14:05
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-5
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	764		230	mgdKg			0904022 09:30	3	

Client Sample ID: FS06
Date Collected: 09/06/22 14:20
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
UenBene	z000200	a	000200	mgdKg		0903022 1V:V4	0908022 19:24	1	
Toluene	z000200	a h	000200	mgdKg		0903022 1V:V4	0908022 19:24	1	
EtyXbenBene	z000200	a	000200	mgdKg		0903022 1V:V4	0908022 19:24	1	
m-Xlene p , -Xlene	z000499	a	000499	mgdKg		0903022 1V:V4	0908022 19:24	1	
o-Xlene	z000200	a	000200	mgdKg		0903022 1V:V4	0908022 19:24	1	
Xlenes6TotI	z000499	a	000499	mgdKg		0903022 1V:V4	0908022 19:24	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	107		70 - 130			09/16/22 14:43	09/18/22 19:23	1	
1,4-Difluorobenzene (Surr)	94		70 - 130			09/16/22 14:43	09/18/22 19:23	1	

Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
TotI UTE&	z000499	a	000499	mgdKg			0909022 09:32	1	

Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	473		300	mgdKg			0902022 10:21	1	

Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
G* soline F* nge f Rg* nij s dGFf RCO-C10	z300	a	300	mgdKg		0909022 1QV5	0900022 02:42	1	
Diesel Range Organics (Over C10-C28)	364		300	mgdKg		0909022 1QV5	0900022 02:42	1	
Oil Range Organics (Over C28-C36)	109		300	mgdKg		0909022 1QV5	0900022 02:42	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	97		70 - 130			09/09/22 1T:47	09/10/22 02:32	1	
o-peryhen5l	88		70 - 130			09/09/22 1T:47	09/10/22 02:32	1	

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	841		230	mgdKg			0904022 10:10	3	

EuR0jns C* Rsb*v

Client Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS07

Lab Sample ID: 890-2893-7

Date Collected: 09/06/22 14:30

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
UenBene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 19:VW	1
Toluene	z0-00199	a h-	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 19:VW	1
EtyXbenBene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 19:VW	1
m-&Xlene p , -&Xlene	z0-00498	a	0-00498	mgdKg		09d13d22 1V:V4	09d18d22 19:VW	1
o-&Xlene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 19:VW	1
&Xlenes6Tot* l	z0-00498	a	0-00498	mgdKg		09d13d22 1V:V4	09d18d22 19:VW	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	09/16/22 14:43	09/18/22 19:44	1
1,4-Difluorobenzene (Surr)	98		70 - 130	09/16/22 14:43	09/18/22 19:44	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tot* l UTE&	z0-00498	a	0-00498	mgdKg			09d19d22 09:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1250		V9-8	mgdKg			09d12d22 10:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
G* soline F* nge f P* nij s dGFf RCO-C10	zV9-8	a	V9-8	mgdKg		09d09d22 1QV5	09d10d22 02:34	1
Diesel Range Organics (Over C10-C28)	999		V9-8	mgdKg		09d09d22 1QV5	09d10d22 02:34	1
Oil Range Organics (Over C28-C36)	254		V9-8	mgdKg		09d09d22 1QV5	09d10d22 02:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	09/09/22 17:47	09/10/22 02:63	1
o-peryhen5l	90		70 - 130	09/09/22 17:47	09/10/22 02:63	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1270		2V-8	mgdKg			09d14d22 10:13	3

Client Sample ID: FS08

Lab Sample ID: 890-2893-8

Date Collected: 09/06/22 15:00

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
UenBene	z0-00200	a	0-00200	mgdKg		09d13d22 1V:V4	09d18d22 20:0V	1
Toluene	z0-00200	a h-	0-00200	mgdKg		09d13d22 1V:V4	09d18d22 20:0V	1
EtyXbenBene	z0-00200	a	0-00200	mgdKg		09d13d22 1V:V4	09d18d22 20:0V	1
m-&Xlene p , -&Xlene	z0-00499	a	0-00499	mgdKg		09d13d22 1V:V4	09d18d22 20:0V	1
o-&Xlene	z0-00200	a	0-00200	mgdKg		09d13d22 1V:V4	09d18d22 20:0V	1
&Xlenes6Tot* l	z0-00499	a	0-00499	mgdKg		09d13d22 1V:V4	09d18d22 20:0V	1

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Client Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS08

Lab Sample ID: 890-2893-8

Date Collected: 09/06/22 15:00

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130			09/16/22 14:43	09/18/22 20:04	1
1,4-Difluorobenzene (Surr)	101		70 - 130			09/16/22 14:43	09/18/22 20:04	1
Method: Total BTEX - Total BTEX Calculation								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tot*I UTE&	z0-00499	a	0-00499	mgdKg			09d19d22 09:32	1
Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1280		30-0	mgdKg			09d12d22 10:21	1
Method: 8015B NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
G*soline F*nge f Pø*nij s dGFf RCO-C10	z30-0	a	30-0	mgdKg		09d09d22 1QV5	09d10d22 04:13	1
Diesel Range Organics (Over C10-C28)	1000		30-0	mgdKg		09d09d22 1QV5	09d10d22 04:13	1
Oil Range Organics (Over C28-C36)	282		30-0	mgdKg		09d09d22 1QV5	09d10d22 04:13	1
Method: 300.0 - Anions, Ion Chromatography - Soluble								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			09/09/22 1T:47	09/10/22 03:16	1
o-peryhen5l	88		70 - 130			09/09/22 1T:47	09/10/22 03:16	1
Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	869		23-0	mgdKg			09d14d22 10:20	3

Client Sample ID: FS09

Lab Sample ID: 890-2893-9

Date Collected: 09/06/22 09:05

Matrix: Solid

Date Received: 09/08/22 08:15

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
UenBene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 20:23	1
Toluene	z0-00199	a h-	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 20:23	1
EtyXbenBene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 20:23	1
m-&Xlene p , -&Xlene	z0-00498	a	0-00498	mgdKg		09d13d22 1V:V4	09d18d22 20:23	1
o-&Xlene	z0-00199	a	0-00199	mgdKg		09d13d22 1V:V4	09d18d22 20:23	1
&Xlenes6Tot* I	z0-00498	a	0-00498	mgdKg		09d13d22 1V:V4	09d18d22 20:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			09/16/22 14:43	09/18/22 20:26	1
1,4-Difluorobenzene (Surr)	110		70 - 130			09/16/22 14:43	09/18/22 20:26	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Tot* I UTE&	z0-00498	a	0-00498	mgdKg			09d19d22 09:32	1

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Client Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS09
Date Collected: 09/06/22 09:05
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-9
Matrix: Solid

Method: 8015 NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3300		30<0	mgdKg			09<12<22 10:21	1
Method: 8015B NM - Diesel Range Organics (DRO) (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
G*soline F*nge f Rg*nij s	z30<0	a	30<0	mgdKg		09<09<22 1QV5	09<10<22 04:40	1
dBFf RCOC10								
Diesel Range Organics (Over C10-C28)	2700		30<0	mgdKg		09<09<22 1QV5	09<10<22 04:40	1
Oil Range Organics (Over C28-C36)	598		30<0	mgdKg		09<09<22 1QV5	09<10<22 04:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	9T		70 - 130			09/09/22 1T:47	09/10/22 03:3T	1
o-peryhen5l	79		70 - 130			09/09/22 1T:47	09/10/22 03:3T	1
Method: 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1420		23<2	mgdKg			09<14<22 10:23	3

Client Sample ID: FS10
Date Collected: 09/06/22 09:10
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-10
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
UenBene	z0<00199	a	0<00199	mgdKg		09<13<22 1V:V4	09<18<22 20:V3	1	
Toluene	0.00233	*-	0<00199	mgdKg		09<13<22 1V:V4	09<18<22 20:V3	1	
Ethylbenzene	0.00348		0<00199	mgdKg		09<13<22 1V:V4	09<18<22 20:V3	1	
m-Xylene & p-Xylene	0.00780		0<00498	mgdKg		09<13<22 1V:V4	09<18<22 20:V3	1	
o-Xylene	0.00294		0<00199	mgdKg		09<13<22 1V:V4	09<18<22 20:V3	1	
Xylenes, Total	0.0107		0<00498	mgdKg		09<13<22 1V:V4	09<18<22 20:V3	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	11T		70 - 130			09/16/22 14:43	09/18/22 20:46	1	
1,4-Difluorobenzene (Surr)	107		70 - 130			09/16/22 14:43	09/18/22 20:46	1	
Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	0.0166		0<00498	mgdKg			09<19<22 09:32	1	
Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	6770		30<0	mgdKg			09<12<22 10:21	1	
Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	78.5		30<0	mgdKg		09<10<22 08:4V	09<10<22 19:10	1	
Diesel Range Organics (Over C10-C28)	6690		30<0	mgdKg		09<10<22 08:4V	09<10<22 19:10	1	
f ll F* nge f Rg* nij s d f (ePC28-C4CR	z30<0	a	30<0	mgdKg		09<10<22 08:4V	09<10<22 19:10	1	

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Client Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Client Sample ID: FS10
Date Collected: 09/06/22 09:10
Date Received: 09/08/22 08:15
Sample Depth: 1

Lab Sample ID: 890-2893-10
Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	09/10/22 08:34	09/10/22 19:10	1
o-peryhen5l	122		70 - 130	09/10/22 08:34	09/10/22 19:10	1

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	2330		23-2	mgdKg			09d14d22 10:40	3	

Surrogate Summary

Int Est uoinS
ProjncE n: s VU C904

Job ID: 890-2891-C
GD3 : 01D2057008

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)
890-2891-C	6G0C	CCC	98
890-2891-CMG	6G0C	CCA	C07
890-2891-CMGD	6G0C	CCC	C01
890-2891-2	6G02	CC4	92
890-2891-1	6G01	CC1	C00
890-2891-4	6G04	CC0	89
890-2891-5	6G05	CC4	97
890-2891-A	6G0A	CCA	94
890-2891-7	6G07	CC1	98
890-2891-8	6G08	CC9	C0C
890-2891-9	6G09	C20	CC0
890-2891-C0	6G00	CCA	C07
al G 880-14598/C-x	apb l ot Eoi GpS kin	C24	C0A
al GD 880-14598/2-x	apb l ot Eoi GpS kin Drk	C1A GCH	C02
M+ 880-14598/5-x	MnEoB +ipt h	97	9C
Surrogate Legend			
+6+ d 4+roS ofmrobt nnt n fGmrz			
D6+(d C4-Dfmrrobt nnt n fGmrz			

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)
890-2892-x-5-I MG	MpEz Gkhn	CC	92
890-2892-x-5-D MGD	MpEz Gkhn Drkiapn	CC	97
890-2891-C	6G0C	CC2	94
890-2891-2	6G02	CC	91
890-2891-1	6G01	99	92
890-2891-4	6G04	99	90
890-2891-5	6G05	98	89
890-2891-A	6G0A	97	88
890-2891-7	6G07	CC	90
890-2891-8	6G08	98	88
890-2891-9	6G09	9A	79
890-2891-C0	6G00	CC1	C22
890-2900-x-C-s MG	MpEz Gkhn	97	88
890-2900-x-C-6 MGD	MpEz Gkhn Drkiapn	99	90
al G 880-14C28/2-x	apb l ot Eoi GpS kin	C11 GCH	C1C GCH
al G 880-14C41/2-x	apb l ot Eoi GpS kin	CCA	CC7
al GD 880-14C28/1-x	apb l ot Eoi GpS kin Drk	C1C GCH	C1C GCH
al GD 880-14C41/1-x	apb l ot Eoi GpS kin Drk	CC7	C2C
M+ 880-14C28/C-x	MnEoB +ipt h	C11 GCH	C1A GCH
M+ 880-14C41/C-x	MnEoB +ipt h	CC4	CC
Surrogate Legend			
C , d C-I Liorocpt n			
, OPT d o-ChrkLnt yi			

QC Sample Results

Client: Ensolum
7 Brej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34598/5-A

Matrix: Solid

Analysis Batch: 34744

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 34598

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
UenBene	z0-00200	a	0-00200	m. g.		09d3d22 1V:V4	09d8d22 15:18	1
Koluene	z0-00200	a	0-00200	m. g.		09d3d22 1V:V4	09d8d22 15:18	1
EtThlbenBene	z0-00200	a	0-00200	m. g.		09d3d22 1V:V4	09d8d22 15:18	1
m-y hlene X &-y hlene	z0-00V00	a	0-00V00	m. g.		09d3d22 1V:V4	09d8d22 15:18	1
o-y hlene	z0-00200	a	0-00200	m. g.		09d3d22 1V:V4	09d8d22 15:18	1
y hlenespKot, l	z0-00V00	a	0-00V00	m. g.		09d3d22 1V:V4	09d8d22 15:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	10		08 - 738	81/79/55 74:43	81/72/55 70:72	7
76f-, fluorobenzene (Surr)	17		08 - 738	81/79/55 74:43	81/72/55 70:72	7

Lab Sample ID: LCS 880-34598/1-A

Matrix: Solid

Analysis Batch: 34744

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34598

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
UenBene	0-100	0-0512V		m. g.		51	50 - 140
Koluene	0-100	0-06690	*-	m. g.		65	50 - 140
EtThlbenBene	0-100	0-0531V		m. g.		53	50 - 140
m-y hlene X &-y hlene	0-200	0-1361		m. g.		58	50 - 140
o-y hlene	0-100	0-09025		m. g.		90	50 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	754		08 - 738
76f-, fluorobenzene (Surr)	78i		08 - 738

Lab Sample ID: LCSD 880-34598/2-A

Matrix: Solid

Analysis Batch: 34744

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 34598

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
UenBene	0-100	0-05V18		m. g.		5V	50 - 140	V	43
Koluene	0-100	0-05V06		m. g.		5V	50 - 140	10	43
EtThlbenBene	0-100	0-0850V		m. g.		85	50 - 140	13	43
m-y hlene X &-y hlene	0-200	0-1864		m. g.		94	50 - 140	18	43
o-y hlene	0-100	0-1050		m. g.		105	50 - 140	15	43

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	73i	S7C	08 - 738
76f-, fluorobenzene (Surr)	785		08 - 738

Lab Sample ID: 890-2893-1 MS

Matrix: Solid

Analysis Batch: 34744

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 34598

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
UenBene	z0-00202	a F1	0-0998	0-06836	F1	m. g.		69	50 - 140
Koluene	z0-00202	a *- F1	0-0998	0-03513	F1	m. g.		35	50 - 140

EuRfins C, Rsb, d

QC Sample Results

Client: Ensolum
7 Brej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

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

Lab Sample ID: 890-2893-1 MS
Matrix: Solid
Analysis Batch: 34744

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 34598

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
EtThlbenBene	z0-00202	a F1	0-0998	0-03492	F1	m. g.		3V	50 - 140
m-y hlene X &y hlene	z0-00V04	a F1	0-200	0-0080	F1	m. g.		3V	50 - 140
o-y hlene	z0-00202	a F1	0-0998	0-06122	F1	m. g.		61	50 - 140
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	77i		08 - 738						
76i-, Fluorobenzene (Surr)	780		08 - 738						

Lab Sample ID: 890-2893-1 MSD
Matrix: Solid
Analysis Batch: 34744

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 34598

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
UenBene	z0-00202	a F1	0-00	0-05209		m. g.		52	50 - 140	3	43
Koluene	z0-00202	a *- F1	0-00	0-06402	F1	m. g.		62	50 - 140	10	43
EtThlbenBene	z0-00202	a F1	0-00	0-03895	F1	m. g.		39	50 - 140	9	43
m-y hlene X &y hlene	z0-00V04	a F1	0-201	0-015V	F1	m. g.		38	50 - 140	8	43
o-y hlene	z0-00202	a F1	0-00	0-06636	F1	m. g.		66	50 - 140	8	43
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	777		08 - 738								
76i-, Fluorobenzene (Surr)	783		08 - 738								

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

Lab Sample ID: MB 880-34128/1-A
Matrix: Solid
Analysis Batch: 34048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34128

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
G, soline R, n. e OP, nij s (GRO)-C6-C10	z30-0	a	30-0	m. g.		0909022 16:V5	0909022 18:45	1
Diesel R, n. e OP, nij s (OveP C10-C28)	z30-0	a	30-0	m. g.		0909022 16:V5	0909022 18:45	1
Oll R, n. e OP, nij s (OvePC28-C46)	z30-0	a	30-0	m. g.		0909022 16:V5	0909022 18:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
7-h cloroot a-ne	733	S7C	08 - 738	81/81/55 7i :40	81/81/55 72:30	7		
o-Terpcenyl	73i	S7C	08 - 738	81/81/55 7i :40	81/81/55 72:30	7		

Lab Sample ID: LCS 880-34128/2-A
Matrix: Solid
Analysis Batch: 34048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
G, soline R, n. e OP, nij s (GRO)-C6-C10	1000	928-0		m. g.		94	50 - 140
Diesel R, n. e OP, nij s (OveP C10-C28)	1000	90V-2		m. g.		90	50 - 140

EuRfins C, Rsb, d

QC Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

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

Lab Sample ID: LCS 880-34128/2-A
Matrix: Solid
Analysis Batch: 34048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34128

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
7-h chloroot a-ne	733	S7C	08 - 738
o-Terpcenyl	737	S7C	08 - 738

Lab Sample ID: LCSD 880-34128/3-A
Matrix: Solid
Analysis Batch: 34048

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34128

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
G, soline R, n. e OP, nij s (GRO)-C6-C10			1000	883-3		m. g.		89	50 - 140	3	20
Diesel R, n. e OP, nij s (OveP C10-C28)			1000	90V-6		m. g.		90	50 - 140	0	20
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
7-h chloroot a-ne	737	S7C	08 - 738								
o-Terpcenyl	737	S7C	08 - 738								

Lab Sample ID: 890-2892-A-5-C MS
Matrix: Solid
Analysis Batch: 34048

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34128

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
G, soline R, n. e OP, nij s (GRO)-C6-C10	zV9-9	a	996	9V2-0		m. g.		92	50 - 140		
Diesel R, n. e OP, nij s (OveP C10-C28)	zV9-9	a	996	910-0		m. g.		91	50 - 140		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
7-h chloroot a-ne	787		08 - 738								
o-Terpcenyl	15		08 - 738								

Lab Sample ID: 890-2892-A-5-D MSD
Matrix: Solid
Analysis Batch: 34048

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34128

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
G, soline R, n. e OP, nij s (GRO)-C6-C10	zV9-9	a	999	983-4		m. g.		96	50 - 140	3	20
Diesel R, n. e OP, nij s (OveP C10-C28)	zV9-9	a	999	98V-3		m. g.		99	50 - 140	8	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
7-h chloroot a-ne	777		08 - 738								
o-Terpcenyl	10		08 - 738								

EuRfins C, Rsb, d

QC Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

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

Lab Sample ID: MB 880-34143/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 34139						Prep Batch: 34143			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
G, soline R, n. e OP , nij s (GRO)-C6-C10	z30<0	a	30<0	m. g.		09<10<22 08:4V	09<10<22 10:0V	1	
Diesel R, n. e OP , nij s (OveP C10-C28)	z30<0	a	30<0	m. g.		09<10<22 08:4V	09<10<22 10:0V	1	
Oll R, n. e OP , nij s (OvePC28-C46)	z30<0	a	30<0	m. g.		09<10<22 08:4V	09<10<22 10:0V	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
7-h cloroot a-ne	774		08 - 738			81/78/55 82:34	81/78/55 78:84	7	
o-Terpcenyl	777		08 - 738			81/78/55 82:34	81/78/55 78:84	7	

Lab Sample ID: LCS 880-34143/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 34139						Prep Batch: 34143			
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
G, soline R, n. e OP , nij s (GRO)-C6-C10		1000	1026		m. g.		104	50 - 140	
Diesel R, n. e OP , nij s (OveP C10-C28)		1000	944<0		m. g.		94	50 - 140	
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
7-h cloroot a-ne	771		08 - 738						
o-Terpcenyl	770		08 - 738						

Lab Sample ID: LCSD 880-34143/3-A						Client Sample ID: Lab Control Sample Dup				
Matrix: Solid						Prep Type: Total/NA				
Analysis Batch: 34139						Prep Batch: 34143				
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
G, soline R, n. e OP , nij s (GRO)-C6-C10		1000	902<4		m. g.		90	50 - 140	14	20
Diesel R, n. e OP , nij s (OveP C10-C28)		1000	908<3		m. g.		91	50 - 140	4	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits							
7-h cloroot a-ne	770		08 - 738							
o-Terpcenyl	757		08 - 738							

Lab Sample ID: 890-2900-A-1-E MS						Client Sample ID: Matrix Spike				
Matrix: Solid						Prep Type: Total/NA				
Analysis Batch: 34139						Prep Batch: 34143				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
G, soline R, n. e OP , nij s (GRO)-C6-C10	zV9<0	a	995	822<0		m. g.		81	50 - 140	
Diesel R, n. e OP , nij s (OveP C10-C28)	zV9<0	a	995	895<4/		m. g.		88	50 - 140	

EuRfins C, Rsb, d

QC Sample Results

Client: Ensolum
7 Brej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

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

Lab Sample ID: 890-2900-A-1-E MS
Matrix: Solid
Analysis Batch: 34139

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34143

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
7-h chloroot a-ne	10		08 - 738
o-Terpcenyl	22		08 - 738

Lab Sample ID: 890-2900-A-1-F MSD
Matrix: Solid
Analysis Batch: 34139

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34143

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
G, soline R, n. e OP , nij s (GRO)-C6-C10	zV9-0	a	999	8V9-1		m. g.		84	50 - 140	4	20
Diesel R, n. e OP , nij s (OveP C10-C28)	zV9-0	a	999	943-0		m. g.		92	50 - 140	V	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
7-h chloroot a-ne	11		08 - 738								
o-Terpcenyl	18		08 - 738								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34102/1-A
Matrix: Solid
Analysis Batch: 34352

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
CTIoRde	z3-00	a	3-00	m. g.			09cl4c22 08:35	1

Lab Sample ID: LCS 880-34102/2-A
Matrix: Solid
Analysis Batch: 34352

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
CTIoRde	230	249-6		m. g.		96	90 - 110

Lab Sample ID: LCSD 880-34102/3-A
Matrix: Solid
Analysis Batch: 34352

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
CTIoRde	230	2V0-1		m. g.		96	90 - 110	0	20

Lab Sample ID: 890-2893-1 MS
Matrix: Solid
Analysis Batch: 34352

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
CTIoRde	614	F1	230	826-0	F1	m. g.		86	90 - 110

EuRfins C, Rsb, d

QC Sample Results

Client: Ensolum
7 Pørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2893-1 MSD							Client Sample ID: FS01					
Matrix: Solid							Prep Type: Soluble					
Analysis Batch: 34352												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
CTloRde	614	F1	230	8414/	F1	m. g.		88	90 - 110	1	20	

QC Association Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2893-1
SDG: 03D2057008

GC VOA

Prep Batch: 34598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-1	FS01	Total/NA	Solid	5035	
890-2893-2	FS02	Total/NA	Solid	5035	
890-2893-3	FS03	Total/NA	Solid	5035	
890-2893-4	FS04	Total/NA	Solid	5035	
890-2893-5	FS05	Total/NA	Solid	5035	
890-2893-6	FS06	Total/NA	Solid	5035	
890-2893-7	FS07	Total/NA	Solid	5035	
890-2893-8	FS08	Total/NA	Solid	5035	
890-2893-9	FS09	Total/NA	Solid	5035	
890-2893-10	FS10	Total/NA	Solid	5035	
MB 880-34598/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34598/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34598/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2893-1 MS	FS01	Total/NA	Solid	5035	
890-2893-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 34744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-1	FS01	Total/NA	Solid	8021B	34598
890-2893-2	FS02	Total/NA	Solid	8021B	34598
890-2893-3	FS03	Total/NA	Solid	8021B	34598
890-2893-4	FS04	Total/NA	Solid	8021B	34598
890-2893-5	FS05	Total/NA	Solid	8021B	34598
890-2893-6	FS06	Total/NA	Solid	8021B	34598
890-2893-7	FS07	Total/NA	Solid	8021B	34598
890-2893-8	FS08	Total/NA	Solid	8021B	34598
890-2893-9	FS09	Total/NA	Solid	8021B	34598
890-2893-10	FS10	Total/NA	Solid	8021B	34598
MB 880-34598/5-A	Method Blank	Total/NA	Solid	8021B	34598
LCS 880-34598/1-A	Lab Control Sample	Total/NA	Solid	8021B	34598
LCSD 880-34598/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34598
890-2893-1 MS	FS01	Total/NA	Solid	8021B	34598
890-2893-1 MSD	FS01	Total/NA	Solid	8021B	34598

Analysis Batch: 34800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-1	FS01	Total/NA	Solid	Total BTEX	
890-2893-2	FS02	Total/NA	Solid	Total BTEX	
890-2893-3	FS03	Total/NA	Solid	Total BTEX	
890-2893-4	FS04	Total/NA	Solid	Total BTEX	
890-2893-5	FS05	Total/NA	Solid	Total BTEX	
890-2893-6	FS06	Total/NA	Solid	Total BTEX	
890-2893-7	FS07	Total/NA	Solid	Total BTEX	
890-2893-8	FS08	Total/NA	Solid	Total BTEX	
890-2893-9	FS09	Total/NA	Solid	Total BTEX	
890-2893-10	FS10	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2893-1
SDG: 03D2057008

GC Semi VOA

Analysis Batch: 34048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-1	FS01	Total/NA	Solid	8015B NM	34128
890-2893-2	FS02	Total/NA	Solid	8015B NM	34128
890-2893-3	FS03	Total/NA	Solid	8015B NM	34128
890-2893-4	FS04	Total/NA	Solid	8015B NM	34128
890-2893-5	FS05	Total/NA	Solid	8015B NM	34128
890-2893-6	FS06	Total/NA	Solid	8015B NM	34128
890-2893-7	FS07	Total/NA	Solid	8015B NM	34128
890-2893-8	FS08	Total/NA	Solid	8015B NM	34128
890-2893-9	FS09	Total/NA	Solid	8015B NM	34128
MB 880-34128/1-A	Method Blank	Total/NA	Solid	8015B NM	34128
LCS 880-34128/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34128
LCSD 880-34128/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34128
890-2892-A-5-C MS	Matrix Spike	Total/NA	Solid	8015B NM	34128
890-2892-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	34128

Prep Batch: 34128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-1	FS01	Total/NA	Solid	8015NM Prep	
890-2893-2	FS02	Total/NA	Solid	8015NM Prep	
890-2893-3	FS03	Total/NA	Solid	8015NM Prep	
890-2893-4	FS04	Total/NA	Solid	8015NM Prep	
890-2893-5	FS05	Total/NA	Solid	8015NM Prep	
890-2893-6	FS06	Total/NA	Solid	8015NM Prep	
890-2893-7	FS07	Total/NA	Solid	8015NM Prep	
890-2893-8	FS08	Total/NA	Solid	8015NM Prep	
890-2893-9	FS09	Total/NA	Solid	8015NM Prep	
MB 880-34128/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34128/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34128/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2892-A-5-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2892-A-5-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 34139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-10	FS10	Total/NA	Solid	8015B NM	34143
MB 880-34143/1-A	Method Blank	Total/NA	Solid	8015B NM	34143
LCS 880-34143/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34143
LCSD 880-34143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34143
890-2900-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	34143
890-2900-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	34143

Prep Batch: 34143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-10	FS10	Total/NA	Solid	8015NM Prep	
MB 880-34143/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34143/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34143/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2900-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2900-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2893-1
SDG: 03D2057008

GC Semi VOA

Analysis Batch: 34271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-1	FS01	Total/NA	Solid	8015 NM	
890-2893-2	FS02	Total/NA	Solid	8015 NM	
890-2893-3	FS03	Total/NA	Solid	8015 NM	
890-2893-4	FS04	Total/NA	Solid	8015 NM	
890-2893-5	FS05	Total/NA	Solid	8015 NM	
890-2893-6	FS06	Total/NA	Solid	8015 NM	
890-2893-7	FS07	Total/NA	Solid	8015 NM	
890-2893-8	FS08	Total/NA	Solid	8015 NM	
890-2893-9	FS09	Total/NA	Solid	8015 NM	
890-2893-10	FS10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 34102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-1	FS01	Soluble	Solid	DI Leach	
890-2893-2	FS02	Soluble	Solid	DI Leach	
890-2893-3	FS03	Soluble	Solid	DI Leach	
890-2893-4	FS04	Soluble	Solid	DI Leach	
890-2893-5	FS05	Soluble	Solid	DI Leach	
890-2893-6	FS06	Soluble	Solid	DI Leach	
890-2893-7	FS07	Soluble	Solid	DI Leach	
890-2893-8	FS08	Soluble	Solid	DI Leach	
890-2893-9	FS09	Soluble	Solid	DI Leach	
890-2893-10	FS10	Soluble	Solid	DI Leach	
MB 880-34102/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34102/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34102/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2893-1 MS	FS01	Soluble	Solid	DI Leach	
890-2893-1 MSD	FS01	Soluble	Solid	DI Leach	

Analysis Batch: 34352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2893-1	FS01	Soluble	Solid	300.0	34102
890-2893-2	FS02	Soluble	Solid	300.0	34102
890-2893-3	FS03	Soluble	Solid	300.0	34102
890-2893-4	FS04	Soluble	Solid	300.0	34102
890-2893-5	FS05	Soluble	Solid	300.0	34102
890-2893-6	FS06	Soluble	Solid	300.0	34102
890-2893-7	FS07	Soluble	Solid	300.0	34102
890-2893-8	FS08	Soluble	Solid	300.0	34102
890-2893-9	FS09	Soluble	Solid	300.0	34102
890-2893-10	FS10	Soluble	Solid	300.0	34102
MB 880-34102/1-A	Method Blank	Soluble	Solid	300.0	34102
LCS 880-34102/2-A	Lab Control Sample	Soluble	Solid	300.0	34102
LCSD 880-34102/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34102
890-2893-1 MS	FS01	Soluble	Solid	300.0	34102
890-2893-1 MSD	FS01	Soluble	Solid	300.0	34102

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
r joe/ tS/ite: EU4 P90G

Job ID: 890-2891-P
VD3 : 01D2057008

Client Sample ID: 0S18
Date Collecte6: 1- /1R/44 8Mv3
Date 5eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- M8
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5zn	Dil 0actor	Initial smoznt	0inal smoznt	Patch Nzmbner	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			G0. g	5 mL	1G598	09P5Q2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09P8Q2 P7:G0	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09P9Q2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09P2Q2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0A1 g	P0 mL	1GP28	09P9Q2 P. :G7	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09P0Q2 00:GG	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			5A0P g	50 mL	1GP02	09P9Q2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A0		P	50 mL	50 mL	1G152	09P1Q2 09:P2	CH	EE6 MID

Client Sample ID: 0S14
Date Collecte6: 1- /1R/44 8M31
Date 5eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- M4
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5zn	Dil 0actor	Initial smoznt	0inal smoznt	Patch Nzmbner	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			5A0P g	5 mL	1G598	09P5Q2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09P8Q2 P8:0P	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09P9Q2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09P2Q2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0A0P g	P0 mL	1GP28	09P9Q2 P. :G7	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09P0Q2 0P:0.	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			G0. g	50 mL	1GP02	09P9Q2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A0		5	50 mL	50 mL	1G152	09P1Q2 09:GP	CH	EE6 MID

Client Sample ID: 0S1M
Date Collecte6: 1- /1R/44 8M33
Date 5eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- M4M
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5zn	Dil 0actor	Initial smoznt	0inal smoznt	Patch Nzmbner	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			5A02 g	5 mL	1G598	09P5Q2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09P8Q2 P8:2P	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09P9Q2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09P2Q2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0A02 g	P0 mL	1GP28	09P9Q2 P. :G7	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09P0Q2 0P:27	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			5 g	50 mL	1GP02	09P9Q2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A0		5	50 mL	50 mL	1G152	09P1Q2 09:G	CH	EE6 MID

Client Sample ID: 0S1v
Date Collecte6: 1- /1R/44 8v:11
Date 5eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- M4v
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5zn	Dil 0actor	Initial smoznt	0inal smoznt	Patch Nzmbner	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			G09 g	5 mL	1G598	09P5Q2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09P8Q2 P8:G2	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09P9Q2 09:52	NJ	EE6 MID

Eujofins CTJIsbTd

Lab Chronicle

Client: Ensolum
r joe/ tS/ite: EU4 P90G

Job ID: 890-2891-P
VD3 : 01D2057008

Client Sample ID: 0S1v
Date Collecte6: 1- /1R/44 8v:11
Date 5 eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- M2
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5 zn	Dil 0actor	Initial s moznt	0inal s moznt	Patch Nz mber	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09\$2\$2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0A2 g	P0 mL	1GP28	09\$9\$2 P. :G	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09\$0\$2 0P:G	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			5 g	50 mL	1GP02	09\$9\$2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A		5	50 mL	50 mL	1G152	09\$1\$2 09:5P	CH	EE6 MID

Client Sample ID: 0S13
Date Collecte6: 1- /1R/44 8v:13
Date 5 eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- M3
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5 zn	Dil 0actor	Initial s moznt	0inal s moznt	Patch Nz mber	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			G07 g	5 mL	1G598	09\$5\$2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09\$8\$2 P9:02	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09\$9\$2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09\$2\$2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0A1 g	P0 mL	1GP28	09\$9\$2 P. :G	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09\$0\$2 02:P0	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			5AP g	50 mL	1GP02	09\$9\$2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A		5	50 mL	50 mL	1G152	09\$1\$2 09:5.	CH	EE6 MID

Client Sample ID: 0S1R
Date Collecte6: 1- /1R/44 8v:41
Date 5 eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- M2
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5 zn	Dil 0actor	Initial s moznt	0inal s moznt	Patch Nz mber	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			5AP g	5 mL	1G598	09\$5\$2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09\$8\$2 P9:21	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09\$9\$2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09\$2\$2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0AP g	P0 mL	1GP28	09\$9\$2 P. :G	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09\$0\$2 02:12	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			5 g	50 mL	1GP02	09\$9\$2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A		5	50 mL	50 mL	1G152	09\$1\$2 P0:P0	CH	EE6 MID

Client Sample ID: 0S17
Date Collecte6: 1- /1R/44 8v:M
Date 5 eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- M7
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5 zn	Dil 0actor	Initial s moznt	0inal s moznt	Patch Nz mber	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			5A1 g	5 mL	1G598	09\$5\$2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09\$8\$2 P9:GG	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09\$9\$2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09\$2\$2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0AGg	P0 mL	1GP28	09\$9\$2 P. :G	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09\$0\$2 02:51	VM	EE6 MID

Eujofins CTJlsbTd

Lab Chronicle

Client: Ensolum
r joe/ tS/ite: EU4 P90G

Job ID: 890-2891-P
VD3 : 01D2057008

Client Sample ID: 0S17
Date Collecte6: 1- /1R/44 8v:M
Date 5 eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- MZ
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5 z n	Dil 0actor	Initial s moznt	0inal s moznt	Patch Nz mber	Arepare6 or s nalBFe6	s nalBut	Lab
Voluble	LeT/ h	DI LeT/ h			5A0Gg	50 mL	1GP02	09S9S2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A		5	50 mL	50 mL	1G152	09S1S2 P0:P5	CH	EE6 MID

Client Sample ID: 0S19
Date Collecte6: 1- /1R/44 83:11
Date 5 eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- MZ
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5 z n	Dil 0actor	Initial s moznt	0inal s moznt	Patch Nz mber	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			5A0P g	5 mL	1G598	09S5S2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09S8S2 20:0G	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09S9S2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09S2S2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0A0P g	P0 mL	1GP28	09S9S2 P. :G7	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09S0S2 01:P5	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			5 g	50 mL	1GP02	09S9S2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A		5	50 mL	50 mL	1G152	09S1S2 P0:20	CH	EE6 MID

Client Sample ID: 0S1-
Date Collecte6: 1- /1R/44 1- :13
Date 5 eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- MZ
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5 z n	Dil 0actor	Initial s moznt	0inal s moznt	Patch Nz mber	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			5A02 g	5 mL	1G598	09S5S2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09S8S2 20:25	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09S9S2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09S2S2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0A00 g	P0 mL	1GP28	09S9S2 P. :G7	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1G0G8	09S0S2 01:1.	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			G0. g	50 mL	1GP02	09S9S2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A		5	50 mL	50 mL	1G152	09S1S2 P0:25	CH	EE6 MID

Client Sample ID: 0S81
Date Collecte6: 1- /1R/44 1- :81
Date 5 eceiTe6: 1- /19/44 19:83

Lab Sample ID: 9- 1249- MZ1
x atrid: Soli6

Arep yBpe	Patch yBpe	Patch x etho6	5 z n	Dil 0actor	Initial s moznt	0inal s moznt	Patch Nz mber	Arepare6 or s nalBFe6	s nalBut	Lab
6otTIS N	r jep	5015			5A01 g	5 mL	1G598	09S5S2 PGGI	MR	EE6 MID
6otTIS N	NnTlysis	802PB		P	5 mL	5 mL	1G7GG	09S8S2 20:G5	MR	EE6 MID
6otTIS N	NnTlysis	6otTI B6EX		P			1G800	09S9S2 09:52	NJ	EE6 MID
6otTIS N	NnTlysis	80P5 a M		P			1G27P	09S2S2 P0:2P	VM	EE6 MID
6otTIS N	r jep	80P5a M r jep			P0A00 g	P0 mL	1GPGI	09S0S2 08:1G	NM	EE6 MID
6otTIS N	NnTlysis	80P5B a M		P	P uL	P uL	1GP19	09S0S2 P9:P0	VM	EE6 MID
Voluble	LeT/ h	DI LeT/ h			G07 g	50 mL	1GP02	09S9S2 P2:28	KV	EE6 MID
Voluble	NnTlysis	100A		5	50 mL	50 mL	1G152	09S1S2 P0:10	CH	EE6 MID

Lab Chronicle

Client: Ensolum
r jo@/ tS/ite: EU4 P90G

Job ID: 890-2891-P
VD3 : 01D2057008

LaboratorB 5 eferenceu:
EE6 MID = Eujofins MidITnd, P2PP WAFlojidT Nve, MidITnd, 6X 7970P, 6EL (G12)70G-5GG3

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: EaV 190U

Job ID: 890-2894-1
SDG: 04D2035008

Laboratory: Eurofins Midland

Vnless ot7erh ise notewd, ll , n, lytes for t7is l, bor, tory here coverewunwer e, c7 , ccrewit, tion/certific, tion beloh .

Authority	Program	Identification Number	Expiration Date
Tex, s	NELAP	T10U50UU00-22-2U	06-40-24
T7e folloh ing , n, lytes , re incluwe in t7is reportdbut t7e l, bor, tory is not certifiwe by t7e governing , ut7ority. T7is list m, y incluwe , n, lytes for h 7ic7 t7e , gency woes not offer certific, tion.			
An, lysis Met7ow	Prep Met7ow	M, trix	An, lyte
8013 NM		Soliw	Tot, l TPH
Tot, l BTEX		Soliw	Tot, l BTEX

Method Summary

Client: Ensolum
7 Rørej tSite: E/ a 190V

Job ID: 890-2894-1
SDG: 04D2035008

Method	Method Description	Protocol	Laboratory
80216	/ olBtile ORgBnij Compounds (GC)	SU 8VW	EEX NID
XotBl 6 XEA	XotBl 6 XEA CBj ulBtion	XMT SO7	EEX NID
8013 LN	Diesel RBnge ORgBnij s (DRO) (GC)	SU 8VW	EEX NID
80136 LN	Diesel RBnge ORgBnij s (DRO) (GC)	SU 8VW	EEX NID
400.0	Mhions, Ion ChRmBtogRbphy	NCMJ U	EEX NID
3043	Closed System 7uRge Bnd XRPp	SU 8VW	EEX NID
8013LN 7Rep	Nij RextRbj tion	SU 8VW	EEX NID
DI TeBj h	Deionized U BtePTEBj hing 7Rbj eduR	MSXN	EEX NID

Protocol References:

MSXN = MSXN InterRbitionBl

NCMJ U = "Nethods FoPChemij Bl MhBlysis Of U BtePMhd U Bstes", E7M-V00d/-59-020, NBR h 1984 Mhd Subsequent Revisions.

SU 8VW= "Xest Nethods FoPEvBluBting Solid U Bste, 7hysij BlChemij Bl Nethods", XhiRl Edition, L ovembeP198VMhd Its apdBtes.

XMT SO7 = XestMmeRj B TBboRtoRes, StBndBRl OpeRbting 7Rbj eduR

Laboratory References:

EEX NID = EuRfins NidlBnd, 1211 U . FloRdB Mve, NidlBnd, XA 59501, XET (V42)50V-3VW0

Sample Summary

Client: Ensolum
Project/Site: EVU 1904

Job ID: 890-2893-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2893-1	FS01	Solid	09/06/22 13:45	09/08/22 08:15	1
890-2893-2	FS02	Solid	09/06/22 13:50	09/08/22 08:15	1
890-2893-3	FS03	Solid	09/06/22 13:55	09/08/22 08:15	1
890-2893-4	FS04	Solid	09/06/22 14:00	09/08/22 08:15	1
890-2893-5	FS05	Solid	09/06/22 14:05	09/08/22 08:15	1
890-2893-6	FS06	Solid	09/06/22 14:20	09/08/22 08:15	1
890-2893-7	FS07	Solid	09/06/22 14:30	09/08/22 08:15	0.5
890-2893-8	FS08	Solid	09/06/22 15:00	09/08/22 08:15	0.5
890-2893-9	FS09	Solid	09/06/22 09:05	09/08/22 08:15	1
890-2893-10	FS10	Solid	09/06/22 09:10	09/08/22 08:15	1

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

Chain of Custody

Work Order No: _____

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Page

1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 National Parks Hwy.	Address:	3122 Nat. Parks Hwy.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad NM 88220
Phone:	303-517-8437	Email:	kjennings@ensolum.com

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

Project Name:	EVU 1904	Turn Around	Pres. Code
Project Number:	03D2057008	☒ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	5 Day TAT
Sampler's Name:	Liz Chell	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	N/A	Wet Ice:	(Yes) No
SAMPLE RECEIPT	Temp Blank: (Yes) No	Thermometer ID:	TPW007
Samples Received Inact:	Yes No	Correction Factor:	-0.3
Cooler Custody Seals:	Yes No	Temperature Reading:	16.2
Sample Custody Seals:	Yes No	Corrected Temperature:	16.0
Total Containers:			



890-2693 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grav/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes	Sample Comments
FS01	S	9/6/2022	1345	1'	Comp	1	CHLORIDES (EPA: 300.0)	None: NO	Incident Number: NAPP2210950771
FS02	S	9/6/2022	1350	1'	Comp	1	TPH (8015)	DI Water: H ₂ O	
FS03	S	9/6/2022	1355	1'	Comp	1	BTEX (8021)	Cool: Cool	
FS04	S	9/6/2022	1400	1'	Comp	1		HCL: HC	
FS05	S	9/6/2022	1405	1'	Comp	1		H ₂ SO ₄ : H ₂	
FS06	S	9/6/2022	1420	1'	Comp	1		H ₃ PO ₄ : HP	
FS07	S	9/6/2022	1430	1.5'	Comp	1		NaHSO ₄ : NABIS	
FS08	S	9/6/2022	1500	1.5'	Comp	1		Na ₂ S ₂ O ₃ : NaSO ₃	
FS09	S	9/7/2022	905	1'	Comp	1		Zn Acetate+NaOH: Zn	
FS10	S	9/7/2022	910	1'	Comp	1		NaOH+Ascorbic Acid: SANC	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9-8-22 815			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2894-1

SDG Number: 04D2035008

Login Number: 2893
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
7Te hoolers husto' d seylai, f resentaits intyhtp	7true	
Symf le husto' d seylsai, f resentayre intyhtp	7true	
7Te hooler or symf les ' o not yf f eyr to Ty. e been homf romise' or tymf ere' v itTp	7true	
Symf les v ere rehei. e' on ihep	7true	
Cooler 7emf eryture is yhhf tyblep	7true	
Cooler 7emf eryture is rehor' e' p	7true	
CwC is f resenp	7true	
CwC is ,ille' out in inOyn' lekiblep	7true	
CwC is ,ille' out v itT yll f ertinent in,ormytionp	7true	
g tTe l iel' Symf lers nyme f resen on CwCF	7true	
7Tere yre no ' ishref ynhies betv een tTe hontyiners rehei. e' yn' tTe CwCp	7true	
Symf les yre rehei. e' v itTin ? ol' ink 7ime H(hlu' ink tests v itT imme' iyte ? 7sx	7true	
Symf le hontyiners Ty. e lekible lybelsp	7true	
Contyiners yre not broQen or leyQnkp	7true	
Symf le hollehtion ' yte)times yre f ro. i' e' p	7true	
/ f f rof riyte symf le hontyiners yre use' p	7true	
Symf le bottles yre homf leteld ,ille' p	7true	
Symf le Areser. ytion Peri,ie' p	NY	
7Tere is su,,ihient . olp,or yll reVueste' ynyldsesainhlpypnd reVueste' q S)q SDs	7true	
Contyiners reVuirink Mro Tey' sf yhe Ty. e no Tey' sf yhe or bubble is z<mm H)6"xp	NY	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2894-1

SDG Number: 04D2035008

Login Number: 2893

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 09/09/22 11:04 AM

Question	Answer	Comment
7Te hoolers husto' d seylai, f resentaits intyhtp	NY	
Symf le husto' d seylsai, f resentayre intyhtp	NY	
7Te hooler or symf les ' o not yf f eyr to Ty. e been homf romise' or tymf ere' v itTp	7rue	
Symf les v ere rehei. e' on ihep	7rue	
Cooler 7emf eryture is yhhf tyblep	7rue	
Cooler 7emf eryture is rehor' e' p	7rue	
CwC is f resenp	7rue	
CwC is ,ille' out in inOyn' lekiblep	7rue	
CwC is ,ille' out v itT yll f ertinent in,ormytionp	7rue	
g tTe l iel' Symf lers nyme f resen on CwCF	7rue	
7Tere yre no ' ishref ynhies betv een tTe hontyiners rehei. e' yn' tTe CwCp	7rue	
Symf les yre rehei. e' v itTin ? ol' ink 7ime H(hlu' ink tests v itT imme' iyte ? 7sx	7rue	
Symf le hontyiners Ty. e lekible lybelsp	7rue	
Contyiners yre not broQen or leyQnkp	7rue	
Symf le hollehtion ' yte)times yre f ro. i' e' p	7rue	
/ f f rof riyte symf le hontyiners yre use' p	7rue	
Symf le bottles yre homf leteld ,ille' p	7rue	
Symf le Areser. ytion Peri,ie' p	NY	
7Tere is su,,ihient . olp,or yll reVueste' ynyldsesainhlpypnd reVueste' q S)q SDs	7rue	
Contyiners reVuirink Mro Tey' sf yhe Ty. e no Tey' sf yhe or bubble is z<mm H)6"xp	NY	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3120-1

Laboratory Sample Delivery Group: 03D2057008
Client Project/Site: East Vaccum Unit 1901-001

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

10/5/2022 3:03:20 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: East Vaccum Unit 1901-001

Laboratory Job ID: 890-3120-1
SDG: 03D2057008

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Definitions/Glossary

Client: Ensolum
Project/Site: East Vaccum Unit 1901-001

Job ID: 890-3120-1
SDG: 03D2057008

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: East Vaccum Unit 1901-001

Job ID: 890-3120-1
SDG: 03D2057008

Job ID: 890-2310-3

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2310-3

Receipt

The sample was received on 9/30/2022 12:31 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW02 (890-3120-1)

GC VOA

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-36062 and analytical batch 880-36055 recovered outside control limits for the following analytes: Benzene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36062 and analytical batch 880-36055 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-36062/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3122-A-1-C MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-35915/2-A) and (LCSD 880-35915/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3112-A-1-B MS) and (890-3112-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36131 and analytical batch 880-36132 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: East Vaccum Unit 1901-001

Job ID: 890-3120-1
SDG: 03D2057008

Client Sample ID: SW02

Lab Sample ID: 890-3120-1

Date Collected: 09/30/22 10:40

Matrix: Solid

Date Received: 09/30/22 12:31

Sample Depth: 0 - 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U **	0.00201	mg/Kg		10/04/22 13:56	10/04/22 18:11	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/04/22 13:56	10/04/22 18:11	1
Ethylbenzene	<0.00201	U **	0.00201	mg/Kg		10/04/22 13:56	10/04/22 18:11	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402	mg/Kg		10/04/22 13:56	10/04/22 18:11	1
o-Xylene	<0.00201	U **	0.00201	mg/Kg		10/04/22 13:56	10/04/22 18:11	1
Xylenes, Total	<0.00402	U **	0.00402	mg/Kg		10/04/22 13:56	10/04/22 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	170		37 - 197	17/74/66 192 8	17/74/66 1, 211	1
1,2-Dichlorobenzene (Surr)	9		37 - 197	17/74/66 192 8	17/74/66 1, 211	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			10/04/22 20:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	309		50.0	mg/Kg			10/04/22 09:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/03/22 08:31	10/03/22 13:48	1
Diesel Range Organics (Over C10-C28)	84.1		50.0	mg/Kg		10/03/22 08:31	10/03/22 13:48	1
Oil Range Organics (Over C28-C36)	225		50.0	mg/Kg		10/03/22 08:31	10/03/22 13:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-h chloroanthracene	3		37 - 197	17/79/66 7, 21	17/79/66 192, 21	1
o-perylene	01		37 - 197	17/79/66 7, 21	17/79/66 192, 21	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	227		5.03	mg/Kg			10/05/22 13:35	1

Surrogate Summary

Client: Ensolum
Project/Site: East Vaccum Unit 1901-001

Job ID: 890-3120-1
SDG: 03D2057008

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)
890-3120-1	SW02	109	83
890-3122-A-1-C MS	Matrix Spike	135 S1+	97
890-3122-A-1-D MSD	Matrix Spike Duplicate	124	91
LCS 880-36062/1-A	Lab Control Sample	138 S1+	104
LCSD 880-36062/2-A	Lab Control Sample Dup	120	94
MB 880-36062/5-A	Method Blank	86	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3112-A-1-B MS	Matrix Spike	72	67 S1-
890-3112-A-1-C MSD	Matrix Spike Duplicate	72	66 S1-
890-3120-1	SW02	87	91
LCS 880-35915/2-A	Lab Control Sample	122	131 S1+
LCSD 880-35915/3-A	Lab Control Sample Dup	129	139 S1+
MB 880-35915/1-A	Method Blank	106	118
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Ident Est uoinS
Project Code: s VuEUVccnS 4 t E1901-001

Job ID: 890-2100-1
GD3 : 02D0057008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36062/5-A				Client Sample ID: Method Blank				
Matrix: Solid				Prep Type: Total/NA				
Analysis Batch: 36055				Prep Batch: 36062				
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bnt znt n	<0.00C00	4	0.00C00	S g/Kg		10/0T/CC 12:5h	10/0T/CC 1h:01	1
yoimt n	<0.00C00	4	0.00C00	S g/Kg		10/0T/CC 12:5h	10/0T/CC 1h:01	1
s B&ibnt znt n	<0.00C00	4	0.00C00	S g/Kg		10/0T/CC 12:5h	10/0T/CC 1h:01	1
S-p&int n , a-p&int n	<0.00T00	4	0.00T00	S g/Kg		10/0T/CC 12:5h	10/0T/CC 1h:01	1
o-p&int n	<0.00C00	4	0.00C00	S g/Kg		10/0T/CC 12:5h	10/0T/CC 1h:01	1
p&int nuf yoE/i	<0.00T00	4	0.00T00	S g/Kg		10/0T/CC 12:5h	10/0T/CC 1h:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	10		87 - 3/ 7			37274255 3/:90	37274255 30:73	3
36%-, fluorobenzene (Surr)	11		87 - 3/ 7			37274255 3/:90	37274255 30:73	3

Lab Sample ID: LCS 880-36062/1-A				Client Sample ID: Lab Control Sample				
Matrix: Solid				Prep Type: Total/NA				
Analysis Batch: 36055				Prep Batch: 36062				
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bnt znt n		0.100	0.1227	d6	S g/Kg		12T	70 - 120
yoimt n		0.100	0.1188		S g/Kg		119	70 - 120
s B&ibnt znt n		0.100	0.129C	d6	S g/Kg		129	70 - 120
S-p&int n , a-p&int n		0.C00	0.C79C	d6	S g/Kg		1T0	70 - 120
o-p&int n		0.100	0.1TT1	d6	S g/Kg		1TT	70 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	3/ 1	S3i	87 - 3/ 7					
36%-, fluorobenzene (Surr)	374		87 - 3/ 7					

Lab Sample ID: LCSD 880-36062/2-A					Client Sample ID: Lab Control Sample Dup						
Matrix: Solid					Prep Type: Total/NA						
Analysis Batch: 36055					Prep Batch: 36062						
Analyte			Spike	LCSD	LCSD	Unit	D	%Rec	RPD		
			Added	Result	Qualifier			%Rec	Limits	RPD	Limit
Bnt znt n			0.100	0.117	T	S g/Kg		117	70 - 120	12	25
yoimt n			0.100	0.1C08		S g/Kg		1C1	70 - 120	C	25
s B&ibnt znt n			0.100	0.119	C	S g/Kg		119	70 - 120	15	25
S-p&int n , a-p&int n			0.C00	0.C27	h	S g/Kg		119	70 - 120	1h	25
o-p&int n			0.100	0.1C01		S g/Kg		1C0	70 - 120	18	25
		LCSD	LCSD								
Surrogate		%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)		357		87 - 3/ 7							
36%-, fluorobenzene (Surr)		C4		87 - 3/ 7							

Lab Sample ID: 890-3122-A-1-C MS							Client Sample ID: Matrix Spike				
Matrix: Solid							Prep Type: Total/NA				
Analysis Batch: 36055							Prep Batch: 36062				
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Bnt znt n	<0.00198	4 d6 F1	0.0998	0.121C	F1	S g/Kg		121	70 - 120		
yoimt n	<0.00198	4 F1	0.0998	0.1T0C	F1	S g/Kg		1T0	70 - 120		

smro*d u l VriubV+

QC Sample Results

Int Est uoinS
Project Code: s VuEUvccnS 4 t E1901-001

Job ID: 890-2100-1
GD3 : 02D0057008

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

Lab Sample ID: 890-3122-A-1-C MS
Matrix: Solid
Analysis Batch: 36055

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 36062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
s E&ibnt znt n	<0.00198	4 d6 F1	0.0998	0.1298	F1	S g/Kg		1T0	70 - 120
S-p&int n , a-p&int n	<0.0029h	4 d6 F1	0.000	0.0792	F1	S g/Kg		1T0	70 - 120
o-p&int n	<0.00198	4 d6 F1	0.0998	0.125C	F1	S g/Kg		12h	70 - 120
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	3/ 9	S3i	87 - 3/ 7						
36f-, fluorobenzene (Surr)		C8	87 - 3/ 7						

Lab Sample ID: 890-3122-A-1-D MSD
Matrix: Solid
Analysis Batch: 36055

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 36062

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bnt znt n	<0.00198	4 d6 F1	0.099h	0.1158		S g/Kg		11h	70 - 120	1C	25
yoimnt n	<0.00198	4 F1	0.099h	0.119C		S g/Kg		100	70 - 120	1h	25
s E&ibnt znt n	<0.00198	4 d6 F1	0.099h	0.1180		S g/Kg		119	70 - 120	17	25
S-p&int n , a-p&int n	<0.0029h	4 d6 F1	0.199	0.02hT		S g/Kg		119	70 - 120	17	25
o-p&int n	<0.00198	4 d6 F1	0.099h	0.1185		S g/Kg		119	70 - 120	12	25
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	354		87 - 3/ 7								
36f-, fluorobenzene (Surr)		C3	87 - 3/ 7								

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

Lab Sample ID: MB 880-35915/1-A
Matrix: Solid
Analysis Batch: 35895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 35915

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
3 Vuoi& n RVt gn OrgVt &u (3 RO)-I h-I 10	<50.0	4	50.0	S g/Kg		10/02/CC 08:21	10/02/CC 09:5h	1
D&uni RVt gn OrgVt &u (Ovnr I 10-I C8)	<50.0	4	50.0	S g/Kg		10/02/CC 08:21	10/02/CC 09:5h	1
Oli RVt gn OrgVt &u (Ovnr I C8-I 2h)	<50.0	4	50.0	S g/Kg		10/02/CC 08:21	10/02/CC 09:5h	1
MB MB								
Surrogate	%Recovery	Qualifier	Limits					
3-h cloroot &ne	370		87 - 3/ 7					
o-Terpcenyl	331		87 - 3/ 7					

Lab Sample ID: LCS 880-35915/2-A
Matrix: Solid
Analysis Batch: 35895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3 Vuoi& n RVt gn OrgVt &u (3 RO)-I h-I 10	1000	10TT		S g/Kg		10T	70 - 120
D&uni RVt gn OrgVt &u (Ovnr I 10-I C8)	1000	10hC		S g/Kg		10h	70 - 120

smro*& u l VriubV+

QC Sample Results

Int Est uoinS
Project: s VuEU/ccnS 4 t E1901-001

Job ID: 890-2100-1
GD3 : 02D0057008

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

Lab Sample ID: LCS 880-35915/2-A
Matrix: Solid
Analysis Batch: 35895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 35915

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
3-h chloroot a-ne	355		87 - 3/ 7
o-Terpcenyl	3/ 3	S3i	87 - 3/ 7

Lab Sample ID: LCSD 880-35915/3-A
Matrix: Solid
Analysis Batch: 35895

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 35915

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3 Vuoi d n RVt gn OrgVt eu (3 RO)-I h-I 10 Deuni RVt gn OrgVt eu (Ovnr I 10-I C8)			1000	10hT		S g/Kg		10h	70 - 120	C	00
			1000	1157		S g/Kg		11h	70 - 120	9	00
Surrogate		LCSD	LCSD								
	%Recovery	Qualifier	Limits								
3-h chloroot a-ne	35C		87 - 3/ 7								
o-Terpcenyl	3/ C	S3i	87 - 3/ 7								

Lab Sample ID: 890-3112-A-1-B MS
Matrix: Solid
Analysis Batch: 35895

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 35915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
3 Vuoi d n RVt gn OrgVt eu (3 RO)-I h-I 10 Deuni RVt gn OrgVt eu (Ovnr I 10-I C8)	<50.0	4	998	881.5		S g/Kg		8h	70 - 120		
	<50.0	4	998	79h.T		S g/Kg		78	70 - 120		
Surrogate		MS	MS								
	%Recovery	Qualifier	Limits								
3-h chloroot a-ne	85		87 - 3/ 7								
o-Terpcenyl	08	S3-	87 - 3/ 7								

Lab Sample ID: 890-3112-A-1-C MSD
Matrix: Solid
Analysis Batch: 35895

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 35915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3 Vuoi d n RVt gn OrgVt eu (3 RO)-I h-I 10 Deuni RVt gn OrgVt eu (Ovnr I 10-I C8)	<50.0	4	999	8T5.9		S g/Kg		82	70 - 120	T	00
	<50.0	4	999	79T.C		S g/Kg		77	70 - 120	0	00
Surrogate		MSD	MSD								
	%Recovery	Qualifier	Limits								
3-h chloroot a-ne	85		87 - 3/ 7								
o-Terpcenyl	00	S3-	87 - 3/ 7								

smro*d u l VriubV+

QC Sample Results

Int Est uoinS
Project: s VuEU/ccnS 4 t E1901-001

Job ID: 890-2100-1
GD3 : 02D0057008

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36131/1-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Soluble									
Analysis Batch: 36132																			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac											
I Xior+n	<5.00	4	5.00	S g/Kg			10/05/CC 08:5T	1											
Lab Sample ID: LCS 880-36131/2-A										Client Sample ID: Lab Control Sample									
Matrix: Solid										Prep Type: Soluble									
Analysis Batch: 36132																			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits												
I Xior+n	C50	ChT.2		S g/Kg		10h	90 - 110												
Lab Sample ID: LCSD 880-36131/3-A										Client Sample ID: Lab Control Sample Dup									
Matrix: Solid										Prep Type: Soluble									
Analysis Batch: 36132																			
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit										
I Xior+n	C50	CC7.7		S g/Kg		91	90 - 110	15	00										
Lab Sample ID: 890-3125-A-1-E MS										Client Sample ID: Matrix Spike									
Matrix: Solid										Prep Type: Soluble									
Analysis Batch: 36132																			
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits										
I Xior+n	2h.1	F1	C52	C55.1	F1	S g/Kg		87	90 - 110										
Lab Sample ID: 890-3125-A-1-F MSD										Client Sample ID: Matrix Spike Duplicate									
Matrix: Solid										Prep Type: Soluble									
Analysis Batch: 36132																			
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit								
I Xior+n	2h.1	F1	C52	Chh.8		S g/Kg		91	90 - 110	T	00								

QC Association Summary

Client: Ensolum
Project/Site: East Vaccum Unit 1901-001

Job ID: 890-3120-1
SDG: 03D2057008

GC VOA

Analysis Batch: 36055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3120-1	SW02	Total/NA	Solid	8021B	36062
MB 880-36062/5-A	Method Blank	Total/NA	Solid	8021B	36062
LCS 880-36062/1-A	Lab Control Sample	Total/NA	Solid	8021B	36062
LCSD 880-36062/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36062
890-3122-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	36062
890-3122-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36062

Prep Batch: 36062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3120-1	SW02	Total/NA	Solid	5035	
MB 880-36062/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36062/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36062/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3122-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3122-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3120-1	SW02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3120-1	SW02	Total/NA	Solid	8015B NM	35915
MB 880-35915/1-A	Method Blank	Total/NA	Solid	8015B NM	35915
LCS 880-35915/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35915
LCSD 880-35915/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35915
890-3112-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	35915
890-3112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35915

Prep Batch: 35915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3120-1	SW02	Total/NA	Solid	8015NM Prep	
MB 880-35915/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35915/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35915/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3112-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3120-1	SW02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3120-1	SW02	Soluble	Solid	DI Leach	
MB 880-36131/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36131/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36131/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: East Vaccum Unit 1901-001

Job ID: 890-3120-1
SDG: 03D2057008

HPLC/IC (Continued)

Leach Batch: 36131 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3125-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3125-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3120-1	SW02	Soluble	Solid	300.0	36131
MB 880-36131/1-A	Method Blank	Soluble	Solid	300.0	36131
LCS 880-36131/2-A	Lab Control Sample	Soluble	Solid	300.0	36131
LCSD 880-36131/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36131
890-3125-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	36131
890-3125-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36131

Lab Chronicle

Client: Ensolum
Project/Site: East Vaccum Unit 4904-004

Job ID: 890-2410-4
SDG: 02D1035008

Client Sample ID: SW02
Date Collected: 09/30/22 10:40
Date Received: 09/30/22 12:31

Lab Sample ID: 890-3120-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/L A	Pre7	3023			N95 g	3 my	2M0M	40/0N/11 42:3M	p L X	EET p ID
Total/L A	AnalBsis	80146		4	3 my	3 my	2M033	40/0N/11 48:44	AJ	EET p ID
Total/L A	AnalBsis	Total 6 TER		4			2M#08	40/0N/11 10:34	AJ	EET p ID
Total/L A	AnalBsis	8043 Lp		4			2M0N0	40/0N/11 09:43	Sp	EET p ID
Total/L A	Pre7	8043Lp Pre7			40.04 g	40 my	23943	40/02/11 08:24	Dp	EET p ID
Total/L A	AnalBsis	80436 Lp		4	4 uy	4 uy	23893	40/02/11 42:NB	Sp	EET p ID
Soluble	yeach	DI yeach			N95 g	30 my	2M#24	40/03/11 08:00	CH	EET p ID
Soluble	AnalBsis	200.0		4			2M#21	40/03/11 42:23	CH	EET p ID

Laboratory References:
EET p ID f Eurodns p i=lan=, 4144 W. Flori=a Ave, p i=lan=, TR 59504, TEy (N21)50N-3NN0

Accreditation/Certification Summary

Client: Ensolum
Project/Site: East Vaccum Unit 4904-004

Job ID: 890-2410-4
SDG: 02D1035008

Laboratory: Eurofins Midland

Unless otherwise noted, all analyses for this laboratory, hereafter referred to as each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
State of Texas	ENLP	40A50AA00-11-1A	06-20-12
The following analyses are included in this report but the laboratory is not certified by the governing authority. This list may include analyses for which the agency does not require certification.			
Analysis Method	Prep Method	Matrix	Analysis
8043 x M		Solid	Analysis PH
Analysis B. EX		Solid	Analysis B. EX

Method Summary

Client: Ensolum
7 Røj tSite: E/ st a/ j j um Vnit 4904-004

Job ID: 890-2410-4
SDG: 02D1035008

Method	Method Description	Protocol	Laboratory
8014B	aol/ tile ORg/ nij Compounds (GC)	SU 8V6	EEX NID
Xot/ I BXEA	Xot/ I BXEA C/ Ij ul/ tion	XMT SO7	EEX NID
8043 LN	Diesel R/ nge ORg/ nij s (DRO) (GC)	SU 8V6	EEX NID
8043B LN	Diesel R/ nge ORg/ nij s (DRO) (GC)	SU 8V6	EEX NID
200.0	Mhions, Ion ChRm/ togP phy	NCMJ U	EEX NID
3023	Closed System 7uRge / nd XP p	SU 8V6	EEX NID
8043LN 7Rep	Nij RextP j tion	SU 8V6	EEX NID
DI Te/ j h	Deionized U/ tePTe/ j hing 7Rj eduR	MSXN	EEX NID

Protocol References:

MSXN = MSXN InteR/ tion/ I

NCMJ U = "Nethods FoPChemij / I Mn/ lysis Of U / tePMhd U / stes", E7M-600dV59-010, N/ P h 4982 Mhd Subsequent Revisions.

SU 8V6 = "Xest Nethods FoPEv/ lu/ ting Solid U / ste, 7hysij / I dChemij / I Nethods", XhiRd Edition, L ovembeP4986 Mhd Its Vpd/ tes.

XMT SO7 = XestMmeRj / T/ boP toRes, St/ nd/ Rd OpeP ting 7Rj eduR

Laboratory References:

EEX NID = EuRfins Nidl/ nd, 4144 U . FloRd/ Mve, Nidl/ nd, XA 59504, XET (V21)50W3VW0

Sample Summary

Client: Ensolum
Project/Site: East Vaccum Unit 1901-001

Job ID: 890-3120-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3120-1	SW02	Solid	09/30/22 10:40	09/30/22 12:31	0 - 2.5

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



Chain of Custody

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

Environment Testing

Xenco

Work Order No:

Page 1 of 1
www.xenco.com[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3120-1

SDG Number: 03D2057008

Login Number: 3120

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: 890-3120-1

SDG Number: 03D2057008

Login Number: 3120

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 10/03/22 08:40 AM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3121-1

Laboratory Sample Delivery Group: 03D2057708

Client Project/Site: EAST VACCUM UNIT 1904-001

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

10/5/2022 3:03:20 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Laboratory Job ID: 890-3121-1
SDG: 03D2057708

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Definitions/Glossary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: EaSV UaCCG5 G7 IV 190T-001

Job ID: 890-3121-1
SDh : 03D20pww08

Job ID: 890-2313-3

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2313-3

Receipt

Vve sdmMe . ds recei, eg on 9/30/2022 12:31 P5 q Gnless otver. ise noteg belo. ytve sdmMe drri, eg in f oog congitionyngy. vere re4uiregyMoMerl^o Meser, eg dng on iceq Vve temMerdture oztve cooler dt receiM time . ds TqkC

Receipt Exceptions

Vve xollo. inf sdmMe . ds recei, eg dng dndl^o Vveg zom dn unMeser, eg bul(soil jdr: S) 01 B90-3121-1Lq

GC VOA

5 etvog 80216: Vve ldbordtor^o control sdmMe BCSLdng / or ldbordtor^o control sdmMe guMicdte BCSDLzr MeMirdtion bdtcv 880-3&0&2 dng dndl^o ticdl bdtcv 880-3&0pp reco, ereg outsize control limits zxr tve xollo. inf dndl^o tes: 6enVneyEtv^o lbenVneyym-; ^olene x M; ^olene dng o-; ^oleneq Vvese dndl^o tes . ere bidseg vif v in tve XCS dng . ere not getecteg in tve dssocidteg sdmMesAtverezreytve gtdt vd, e been reMrttegq

5 etvog 80216: Vve mdtriNsM(e / mdtriNsM(e guMicdte B S/5 SDLreco, eries dng Mecision zxr MeMirdtion bdtcv 880-3&0&2 dng dndl^o ticdl bdtcv 880-3&0pp . ere outsize control limitsq SdmMe mdtriNinterzerece dng/or non-vomof eneit^o dre susMecteg becduse tve dssocidteg ldbordtor^o control sdmMe / ldbordtor^o sdmMe control guMicdte BCS/XCSDLMecision . ds . itvin dcceMdnce limitsq

5 etvog 80216: Surrof dte reco, er^o zxr tve xollo. inf sdmMe . ds outsize control limits: BCS 880-3&0&2/1-aLq E, igence ozmdtriN interzereces is not ob, iousq

5 etvog 80216: Surrof dte reco, er^o zxr tve xollo. inf sdmMe . ds outsize control limits: B90-3122-a-1-C 5 SLq E, igence ozmdtriN interzerece is MesentAtverezreyre-eNrdction dng/or re-dndl^o sis . ds not Merzrmegq

7 o dggitiondl dndl^o ticdl or 4udlit^o issues . ere notegyotver tvdn tvose gescribeg dbo, e or in tve Deznitions/ h lossdr^o Mlf eq

GC Semi VOA

5 etvog 801p5 OD_75 : Surrof dte reco, er^o zxr tve xollo. inf sdmMes . ere outsize control limits: BCS 880-3p91p/2-aLdng BCS D 880-3p91p/3-aLq E, igence ozmdtriNinterzereces is not ob, iousq

5 etvog 801p5 OD_75 : Surrof dte reco, er^o zxr tve xollo. inf sdmMes . ere outsize control limits: B90-3112-a-1-6 5 SLdng B90-3112-a-1-C 5 SDLq E, igence ozmdtriNinterzerece is MesentAtverezreyre-eNrdction dng/or re-dndl^o sis . ds not Merzrmegq

7 o dggitiondl dndl^o ticdl or 4udlit^o issues . ere notegyotver tvdn tvose gescribeg dbo, e or in tve Deznitions/ h lossdr^o Mlf eq

HPLC/IC

5 etvog 300_ORh F5 _28D: Vve mdtriNsM(e / mdtriNsM(e guMicdte B S/5 SDLreco, eries dng Mecision zxr MeMirdtion bdtcv 880-3&131 dng dndl^o ticdl bdtcv 880-3&132 . ere outsize control limitsq SdmMe mdtriNinterzerece dng/or non-vomof eneit^o dre susMecteg becduse tve dssocidteg ldbordtor^o control sdmMe / ldbordtor^o sdmMe control guMicdte BCS/XCSDLMecision . ds . itvin dcceMdnce limitsq

7 o dggitiondl dndl^o ticdl or 4udlit^o issues . ere notegyotver tvdn tvose gescribeg dbo, e or in tve Deznitions/ h lossdr^o Mlf eq

Client Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

Client Sample ID: SW01
Date Collected: 09/30/22 10:34
Date Received: 09/30/22 12:31
Sample Depth: 0 - 2.4

Lab Sample ID: 890-3121-1
Matrix: Solid

Method: SW856 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00199	U **	0.00199	mg/Kg		10/04/22 13:56	10/04/22 17:45	1	
Toluene	<0.00199	U	0.00199	mg/Kg		10/04/22 13:56	10/04/22 17:45	1	
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		10/04/22 13:56	10/04/22 17:45	1	
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg		10/04/22 13:56	10/04/22 17:45	1	
o-Xylene	<0.00199	U **	0.00199	mg/Kg		10/04/22 13:56	10/04/22 17:45	1	
Xylenes, Total	<0.00398	U **	0.00398	mg/Kg		10/04/22 13:56	10/04/22 17:45	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	170		37 - 107			17949 / 100	17949 / 1302	1	
1,2-Dibromobenzene (Surr)	31		37 - 107			17949 / 100	17949 / 1302	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			10/04/22 20:51	1	

Method: SW856 8014 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	, 83		49.9	mg/Kg			10/04/22 09:15	1	

Method: SW856 8014B 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		10/03/22 08:31	10/03/22 14:09	1	
Diesel Range Organics (Over C10-C28)	223		49.9	mg/Kg		10/03/22 08:31	10/03/22 14:09	1	
Oil Range Organics (Over C28-C36)	460		49.9	mg/Kg		10/03/22 08:31	10/03/22 14:09	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	117		37 - 107			17909 / 7701	17909 / 14071	1	
o-perylene	170		37 - 107			17909 / 7701	17909 / 14071	1	

Method: MCAWW 300.0 - Anions7Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	1220		25.1	mg/Kg			10/05/22 13:41	5	

Surrogate Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

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)
890-3121-1	SW01	103	79
890-3122-A-1-C MS	Matrix Spike	135 S1+	97
890-3122-A-1-D MSD	Matrix Spike Duplicate	124	91
LCS 880-36062/1-A	Lab Control Sample	138 S1+	104
LCSD 880-36062/2-A	Lab Control Sample Dup	120	94
MB 880-36062/5-A	Method Blank	86	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3112-A-1-B MS	Matrix Spike	72	67 S1-
890-3112-A-1-C MSD	Matrix Spike Duplicate	72	66 S1-
890-3121-1	SW01	98	103
LCS 880-35915/2-A	Lab Control Sample	122	131 S1+
LCSD 880-35915/3-A	Lab Control Sample Dup	129	139 S1+
MB 880-35915/1-A	Method Blank	106	118
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36062/5-A

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36062

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 16:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/04/22 13:56	10/04/22 16:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	10		87 - 3/ 7	37274255 3/:90	37274255 30:73	3
364-, Fluorobenzene (Surr)	11		87 - 3/ 7	37274255 3/:90	37274255 30:73	3

Lab Sample ID: LCS 880-36062/1-A

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1337	*+	mg/Kg		134	70 - 130
Toluene	0.100	0.1188		mg/Kg		119	70 - 130
Ethylbenzene	0.100	0.1392	*+	mg/Kg		139	70 - 130
m-Xylene & p-Xylene	0.200	0.2792	*+	mg/Kg		140	70 - 130
o-Xylene	0.100	0.1441	*+	mg/Kg		144	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	3/ 1	S3i	87 - 3/ 7
364-, Fluorobenzene (Surr)	374		87 - 3/ 7

Lab Sample ID: LCSD 880-36062/2-A

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36062

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1174		mg/Kg		117	70 - 130	13	35
Toluene	0.100	0.1208		mg/Kg		121	70 - 130	2	35
Ethylbenzene	0.100	0.1192		mg/Kg		119	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.2376		mg/Kg		119	70 - 130	16	35
o-Xylene	0.100	0.1201		mg/Kg		120	70 - 130	18	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	357		87 - 3/ 7
364-, Fluorobenzene (Surr)	C4		87 - 3/ 7

Lab Sample ID: 890-3122-A-1-C MS

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 36062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U *+ F1	0.0998	0.1312	F1	mg/Kg		131	70 - 130
Toluene	<0.00198	U F1	0.0998	0.1402	F1	mg/Kg		140	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

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

Lab Sample ID: 890-3122-A-1-C MS							Client Sample ID: Matrix Spike				
Matrix: Solid							Prep Type: Total/NA				
Analysis Batch: 36055							Prep Batch: 36062				
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Ethylbenzene	<0.00198	U *+ F1	0.0998	0.1398	F1	mg/Kg		140	70 - 130		
m-Xylene & p-Xylene	<0.00396	U *+ F1	0.200	0.2793	F1	mg/Kg		140	70 - 130		
o-Xylene	<0.00198	U *+ F1	0.0998	0.1352	F1	mg/Kg		136	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	3/ 9	S3i	87 - 3/ 7								
3,4-Difluorobenzene (Surr)		C8	87 - 3/ 7								

Lab Sample ID: 890-3122-A-1-D MSD						Client Sample ID: Matrix Spike Duplicate					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 36055						Prep Batch: 36062					
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00198	U *+ F1	0.0996	0.1158		mg/Kg		116	70 - 130	12	35
Toluene	<0.00198	U F1	0.0996	0.1192		mg/Kg		120	70 - 130	16	35
Ethylbenzene	<0.00198	U *+ F1	0.0996	0.1180		mg/Kg		119	70 - 130	17	35
m-Xylene & p-Xylene	<0.00396	U *+ F1	0.199	0.2364		mg/Kg		119	70 - 130	17	35
o-Xylene	<0.00198	U *+ F1	0.0996	0.1185		mg/Kg		119	70 - 130	13	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	354		87 - 3/ 7								
3,4-Difluorobenzene (Surr)	C3		87 - 3/ 7								

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

Lab Sample ID: MB 880-35915/1-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 35895						Prep Batch: 35915		
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		10/03/22 08:31	10/03/22 09:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/03/22 08:31	10/03/22 09:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/03/22 08:31	10/03/22 09:56	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
3-chloroanthracene	370		87 - 3/ 7			372/ 25 71:/ 3	372/ 25 7C:90	3
o-Terphenyl	331		87 - 3/ 7			372/ 25 71:/ 3	372/ 25 7C:90	3

Lab Sample ID: LCS 880-35915/2-A							Client Sample ID: Lab Control Sample				
Matrix: Solid							Prep Type: Total/NA				
Analysis Batch: 35895							Prep Batch: 35915				
Analyte	Spike Added			LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000			1044		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)	1000			1062		mg/Kg		106	70 - 130		

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QC Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

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

Lab Sample ID: LCS 880-35915/2-A

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35915

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
3-h chloroot a ne	355		87 - 3/ 7
o-Terpcenyl	3/ 3	S3i	87 - 3/ 7

Lab Sample ID: LCSD 880-35915/3-A

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35915

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1064		mg/Kg		106	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1157		mg/Kg		116	70 - 130	9	20
Surrogate		LCSD	LCSD								
	%Recovery	Qualifier	Limits								
3-h chloroot a ne	35C		87 - 3/ 7								
o-Terpcenyl	3/ C	S3i	87 - 3/ 7								

Lab Sample ID: 890-3112-A-1-B MS

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	881.5		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	998	796.4		mg/Kg		78	70 - 130		
Surrogate		MS	MS								
	%Recovery	Qualifier	Limits								
3-h chloroot a ne	85		87 - 3/ 7								
o-Terpcenyl	08	S3-	87 - 3/ 7								

Lab Sample ID: 890-3112-A-1-C MSD

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	845.9		mg/Kg		83	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	794.2		mg/Kg		77	70 - 130	0	20
Surrogate		MSD	MSD								
	%Recovery	Qualifier	Limits								
3-h chloroot a ne	85		87 - 3/ 7								
o-Terpcenyl	00	S3-	87 - 3/ 7								

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QC Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36131/1-A Matrix: Solid Analysis Batch: 36132										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			10/05/22 08:54	1					

Lab Sample ID: LCS 880-36131/2-A Matrix: Solid Analysis Batch: 36132										Client Sample ID: Lab Control Sample Prep Type: Soluble			
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits				
Chloride			250	264.3		mg/Kg		106	90 - 110				

Lab Sample ID: LCSD 880-36131/3-A Matrix: Solid Analysis Batch: 36132										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	227.7		mg/Kg		91	90 - 110	15	20		

Lab Sample ID: 890-3125-A-1-E MS Matrix: Solid Analysis Batch: 36132										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	36.1	F1	253	255.1	F1	mg/Kg		87	90 - 110				

Lab Sample ID: 890-3125-A-1-F MSD Matrix: Solid Analysis Batch: 36132										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	36.1	F1	253	266.8		mg/Kg		91	90 - 110	4	20		

QC Association Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

GC VOA

Analysis Batch: 36055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3121-1	SW01	Total/NA	Solid	8021B	36062
MB 880-36062/5-A	Method Blank	Total/NA	Solid	8021B	36062
LCS 880-36062/1-A	Lab Control Sample	Total/NA	Solid	8021B	36062
LCSD 880-36062/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36062
890-3122-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	36062
890-3122-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	36062

Prep Batch: 36062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3121-1	SW01	Total/NA	Solid	5035	
MB 880-36062/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36062/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36062/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3122-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3122-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 36107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3121-1	SW01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3121-1	SW01	Total/NA	Solid	8015B NM	35915
MB 880-35915/1-A	Method Blank	Total/NA	Solid	8015B NM	35915
LCS 880-35915/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35915
LCSD 880-35915/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35915
890-3112-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	35915
890-3112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35915

Prep Batch: 35915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3121-1	SW01	Total/NA	Solid	8015NM Prep	
MB 880-35915/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35915/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35915/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3112-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 36041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3121-1	SW01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3121-1	SW01	Soluble	Solid	DI Leach	
MB 880-36131/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36131/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36131/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

HPLC/IC (Continued)

Leach Batch: 36131 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3125-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3125-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3121-1	SW01	Soluble	Solid	300.0	36131
MB 880-36131/1-A	Method Blank	Soluble	Solid	300.0	36131
LCS 880-36131/2-A	Lab Control Sample	Soluble	Solid	300.0	36131
LCSD 880-36131/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36131
890-3125-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	36131
890-3125-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36131

Lab Chronicle

Client: Ensolum
Project/Site: EaSV UaCCG3 G5 IV 4907-004

Job ID: 890-2414-4
SDp : 02D10LXX08

Client Sample ID: SW01

Lab Sample ID: 890-3121-1

Date Collected: 09/30/22 10:35

Matrix: Solid

Date Received: 09/30/22 12:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
VotAI/5 a	PreN	L02L			L.01 g	L my	2T0T1	40/07/11 42:LT	3 5 M	EEV 3 ID
VotAI/5 a	anAIBsis	80146		4	L my	L my	2T0LL	40/07/11 4X:7L	aJ	EEV 3 ID
VotAI/5 a	anAIBsis	VotAI 6 VER		4			2T40X	40/07/11 10:L4	aJ	EEV 3 ID
VotAI/5 a	anAIBsis	804L 53		4			2T074	40/07/11 09:4L	S3	EEV 3 ID
VotAI/5 a	PreN	804L53 PreN			40.01 g	40 my	2L94L	40/02/11 08:24	D3	EEV 3 ID
VotAI/5 a	anAIBsis	804L6 53		4	4 uy	4 uy	2L89L	40/02/11 47:09	S3	EEV 3 ID
Soluble	yeAch	DI yeAch			7.99 g	L0 my	2T424	40/0L/11 08:00	CH	EEV 3 ID
Soluble	anAIBsis	200.0		L			2T421	40/0L/11 42:74	CH	EEV 3 ID

Laboratory References:
EEV 3 ID f Eurodns 3 i=IAn=, 4144 W. Flori=Aave, 3 i=IAn=, VR X9X04, VEy (721)X07-L770

Accreditation/Certification Summary

Client: Ensolum
Project/Site: EaSV UaCCG3 G5 IV 4907-004

Job ID: 890-2414-4
SDh : 02D10wdd08

Laboratory: Eurofins Midland

Unless otherwise noted, all test results are preliminary and subject to change. Certification/Certification below.

Authority	Program	Identification Number	Expiration Date
VeA s	5 E6aP	V407d07700-11-17	0g-20-12
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an. lTsis 3 et, of 804w53	PreM3 et, of	3 . triA Solif	an. lTte Vot. l VPH
Vot. l BVEX		Solif	Vot. l BVEX

Method Summary

Client: Ensolum
7 Rørej tSite: E/ Sa V/ CCUW U6 Ia 490B-004

Job ID: 890-2414-4
SDG: 02D1035508

Method	Method Description	Protocol	Laboratory
8014p	Voldtile (R dnij ComXounNs MBCT	SO 8Bg	EEa WID
aotdl paEL	aotdl paEL Cdlj uldtion	a/ AS(7	EEa WID
8043 6 W	Diesel Rdn) e (R dnij s NDR(TMBCT	SO 8Bg	EEa WID
8043p 6 W	Diesel Rdn) e (R dnij s NDR(TMBCT	SO 8Bg	EEa WID
200.0	/ nions, Ion ChRmdto) RIXhy	WC/ O O	EEa WID
3023	CloseNSystem 7 uP e dnNaRIX	SO 8Bg	EEa WID
80436 W 7 RøX	Wij RextRlj tion	SO 8Bg	EEa WID
DI Aedj h	DeionizeNO dtePAedj hin) 7 Røj eNuRø	/ SaW	EEa WID

Protocol References:

/ SaW = / SaW InteRdtiondl

WC/ O O = "WethoNs FoPChemij dl / ndlysis (f O dteP/ nNO dstes", E7/ -g00dB-59-010, WdP h 4982 / nN Subsequent Revisions.

SO 8Bg = "aest WethoNs FoPEvdludtin) SoliNO dste, 7 hysij dltChemij dl WethoNs", ahiFN ENtion, 6 ovembeP498g / nN Its UXNdtes.

a/ AS(7 = aest/ meRj d AdboRtoRes, StdNdlRN(XeRltin) 7 Røj eNuRø

Laboratory References:

EEa WID = EuRfins WINdnN, 4144 O . FloRNd / ve, WINdnN, aL 59504, aEA N21T50B-3BB0

Sample Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3121-1
SDG: 03D2057708

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3121-1	SW01	Solid	09/30/22 10:35	09/30/22 12:31	0 - 2.5

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eurofins

Environment Testing
Xenco

Chain of Custody

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

Work Order No:

Page of
www.xenco.com[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3121-1

SDG Number: 03D2057708

Login Number: 3121

List Number: 1

Creator: Clifton Cloe

List Source: , urovin CarlsbaE

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: 890-3121-1

SDG Number: 03D2057708

Login Number: 3121

List Number: 2

Creator: RoEriguedf Leticia

List Source: , urowins z iElanE

List Creation: 1MM8/22 MB:4MQz

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3122-1

Laboratory Sample Delivery Group: 03D2057008

Client Project/Site: EAST VACCUM UNIT 1904-001

Revision: 1

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

10/21/2022 10:15:28 AM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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results through



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

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

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Laboratory Job ID: 890-3122-1
SDG: 03D2057008

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Definitions/Glossary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Job ID: 890-3122-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-3122-1**REVISION

The report being provided is a revision of the original report sent on 10/5/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID changes.

Report revision history

Receipt

The samples were received on 9/30/2022 12:31 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS08A (890-3122-1), FS09A (890-3122-2) and FS10A (890-3122-3).

GC VOA

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-36062 and analytical batch 880-36055 recovered outside control limits for the following analytes: Benzene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36062 and analytical batch 880-36055 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-36062/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-3122-A-1-C MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS10A (890-3122-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-35915/2-A) and (LCSD 880-35915/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-3112-A-1-B MS) and (890-3112-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-36131 and analytical batch 880-36132 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because

Case Narrative

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Job ID: 890-3122-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Client Sample ID: FS08A

Lab Sample ID: 890-3122-1

Date Collected: 09/30/22 10:20

Matrix: Solid

Date Received: 09/30/22 12:31

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+ F1	0.00198	mg/Kg		10/04/22 13:56	10/04/22 16:27	1
Toluene	<0.00198	U F1	0.00198	mg/Kg		10/04/22 13:56	10/04/22 16:27	1
Ethylbenzene	<0.00198	U *+ F1	0.00198	mg/Kg		10/04/22 13:56	10/04/22 16:27	1
m-Xylene & p-Xylene	<0.00396	U *+ F1	0.00396	mg/Kg		10/04/22 13:56	10/04/22 16:27	1
o-Xylene	<0.00198	U *+ F1	0.00198	mg/Kg		10/04/22 13:56	10/04/22 16:27	1
Xylenes, Total	<0.00396	U *+ F1	0.00396	mg/Kg		10/04/22 13:56	10/04/22 16:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	10/04/22 13:56	10/04/22 16:27	1
1,4-Difluorobenzene (Surr)	88		70 - 130	10/04/22 13:56	10/04/22 16:27	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			10/04/22 20:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	272		50.0	mg/Kg			10/04/22 09:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/03/22 08:31	10/03/22 14:30	1
Diesel Range Organics (Over C10-C28)	59.7		50.0	mg/Kg		10/03/22 08:31	10/03/22 14:30	1
Oil Range Organics (Over C28-C36)	212		50.0	mg/Kg		10/03/22 08:31	10/03/22 14:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	10/03/22 08:31	10/03/22 14:30	1
o-Terphenyl	104		70 - 130	10/03/22 08:31	10/03/22 14:30	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	420		5.00	mg/Kg			10/05/22 13:47	1

Client Sample ID: FS09A

Lab Sample ID: 890-3122-2

Date Collected: 09/30/22 10:25

Matrix: Solid

Date Received: 09/30/22 12:31

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201	mg/Kg		10/04/22 13:56	10/04/22 16:53	1
Toluene	<0.00201	U	0.00201	mg/Kg		10/04/22 13:56	10/04/22 16:53	1
Ethylbenzene	<0.00201	U *+	0.00201	mg/Kg		10/04/22 13:56	10/04/22 16:53	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402	mg/Kg		10/04/22 13:56	10/04/22 16:53	1
o-Xylene	<0.00201	U *+	0.00201	mg/Kg		10/04/22 13:56	10/04/22 16:53	1
Xylenes, Total	<0.00402	U *+	0.00402	mg/Kg		10/04/22 13:56	10/04/22 16:53	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Client Sample ID: FS09A

Lab Sample ID: 890-3122-2

Date Collected: 09/30/22 10:25

Matrix: Solid

Date Received: 09/30/22 12:31

Sample Depth: 2.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	10/04/22 13:56	10/04/22 16:53	1
1,4-Difluorobenzene (Surr)	87		70 - 130	10/04/22 13:56	10/04/22 16:53	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			10/04/22 20:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	142		49.9	mg/Kg			10/04/22 09:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		10/03/22 08:31	10/03/22 14:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/03/22 08:31	10/03/22 14:51	1
Oil Range Organics (Over C28-C36)	142		49.9	mg/Kg		10/03/22 08:31	10/03/22 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	10/03/22 08:31	10/03/22 14:51	1
o-Terphenyl	104		70 - 130	10/03/22 08:31	10/03/22 14:51	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	225		5.02	mg/Kg			10/05/22 13:53	1

Client Sample ID: FS10A

Lab Sample ID: 890-3122-3

Date Collected: 09/30/22 10:30

Matrix: Solid

Date Received: 09/30/22 12:31

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *	0.00200	mg/Kg		10/04/22 13:56	10/04/22 17:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/04/22 13:56	10/04/22 17:19	1
Ethylbenzene	<0.00200	U *	0.00200	mg/Kg		10/04/22 13:56	10/04/22 17:19	1
m-Xylene & p-Xylene	<0.00399	U *	0.00399	mg/Kg		10/04/22 13:56	10/04/22 17:19	1
o-Xylene	<0.00200	U *	0.00200	mg/Kg		10/04/22 13:56	10/04/22 17:19	1
Xylenes, Total	<0.00399	U *	0.00399	mg/Kg		10/04/22 13:56	10/04/22 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	10/04/22 13:56	10/04/22 17:19	1
1,4-Difluorobenzene (Surr)	87		70 - 130	10/04/22 13:56	10/04/22 17:19	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			10/04/22 20:51	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Client Sample ID: FS10A

Lab Sample ID: 890-3122-3

Date Collected: 09/30/22 10:30

Matrix: Solid

Date Received: 09/30/22 12:31

Sample Depth: 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	421		50.0	mg/Kg			10/04/22 09:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		10/03/22 08:31	10/03/22 15:32	1
Diesel Range Organics (Over C10-C28)	114		50.0	mg/Kg		10/03/22 08:31	10/03/22 15:32	1
Oil Range Organics (Over C28-C36)	307		50.0	mg/Kg		10/03/22 08:31	10/03/22 15:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			10/03/22 08:31	10/03/22 15:32	1
o-Terphenyl	107		70 - 130			10/03/22 08:31	10/03/22 15:32	1

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1040		4.99	mg/Kg			10/05/22 13:59	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

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)
890-3122-1	FS08A	124	88
890-3122-1 MS	FS08A	135 S1+	97
890-3122-1 MSD	FS08A	124	91
890-3122-2	FS09A	121	87
890-3122-3	FS10A	132 S1+	87
LCS 880-36062/1-A	Lab Control Sample	138 S1+	104
LCSD 880-36062/2-A	Lab Control Sample Dup	120	94
MB 880-36062/5-A	Method Blank	86	88

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3112-A-1-B MS	Matrix Spike	72	67 S1-
890-3112-A-1-C MSD	Matrix Spike Duplicate	72	66 S1-
890-3122-1	FS08A	101	104
890-3122-2	FS09A	100	104
890-3122-3	FS10A	103	107
LCS 880-35915/2-A	Lab Control Sample	122	131 S1+
LCSD 880-35915/3-A	Lab Control Sample Dup	129	139 S1+
MB 880-35915/1-A	Method Blank	106	118

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-36062/5-A

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 36062

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<en. ene	* 0.00200	U	0.00200	mF/gF		10/04/22 13:5K	10/04/22 1K:01	1
Toluene	* 0.00200	U	0.00200	mF/gF		10/04/22 13:5K	10/04/22 1K:01	1
Et6Bben. ene	* 0.00200	U	0.00200	mF/gF		10/04/22 13:5K	10/04/22 1K:01	1
m-z Blene h y-z Blene	* 0.00400	U	0.00400	mF/gF		10/04/22 13:5K	10/04/22 1K:01	1
o-z Blene	* 0.00200	U	0.00200	mF/gF		10/04/22 13:5K	10/04/22 1K:01	1
z BlenesXTot&l	* 0.00400	U	0.00400	mF/gF		10/04/22 13:5K	10/04/22 1K:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	12		70 - 3/0	30:04:55 3/6 2	30:04:55 3203	3
3,4-di-fluorobenzene (Surr)	11		70 - 3/0	30:04:55 3/6 2	30:04:55 3203	3

Lab Sample ID: LCS 880-36062/1-A

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 36062

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
<en. ene	0.100	0.1337	p	mF/gF		134	70 - 130
Toluene	0.100	0.1188		mF/gF		119	70 - 130
Et6Bben. ene	0.100	0.1392	p	mF/gF		139	70 - 130
m-z Blene h y-z Blene	0.200	0.2792	p	mF/gF		140	70 - 130
o-z Blene	0.100	0.1441	p	mF/gF		144	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	3/1	S3C	70 - 3/0
3,4-di-fluorobenzene (Surr)	304		70 - 3/0

Lab Sample ID: LCSD 880-36062/2-A

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 36062

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
<en. ene	0.100	0.1174		mF/gF		117	70 - 130	13	35
Toluene	0.100	0.1208		mF/gF		121	70 - 130	2	35
Et6Bben. ene	0.100	0.1192		mF/gF		119	70 - 130	15	35
m-z Blene h y-z Blene	0.200	0.237K		mF/gF		119	70 - 130	1K	35
o-z Blene	0.100	0.1201		mF/gF		120	70 - 130	18	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	350		70 - 3/0
3,4-di-fluorobenzene (Surr)	h4		70 - 3/0

Lab Sample ID: 890-3122-1 MS

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: FS08A

Prep Type: Total/NA

Prep Batch: 36062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
<en. ene	* 0.00198	U p a1	0.0998	0.1312	a1	mF/gF		131	70 - 130
Toluene	* 0.00198	U a1	0.0998	0.1402	a1	mF/gF		140	70 - 130

EuroRns C&rsb&O

QC Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

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

Lab Sample ID: 890-3122-1 MS

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: FS08A

Prep Type: Total/NA

Prep Batch: 36062

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Et6Bben. ene	*0-00198	U p a1	0-0998	0-1398	a1	mF/gF		140	70 - 130
m-z BENE h y-z BENE	*0-0039K	U p a1	0-200	0-2793	a1	mF/gF		140	70 - 130
o-z BENE	*0-00198	U p a1	0-0998	0-1352	a1	mF/gF		13K	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	3/,	S3C	70 - 3/ 0
3,4-di-fluorobenzene (Surr)	h7		70 - 3/ 0

Lab Sample ID: 890-3122-1 MSD

Matrix: Solid

Analysis Batch: 36055

Client Sample ID: FS08A

Prep Type: Total/NA

Prep Batch: 36062

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
<en. ene	*0-00198	U p a1	0-099K	0-1158		mF/gF		11K	70 - 130	12	35
Toluene	*0-00198	U a1	0-099K	0-1192		mF/gF		120	70 - 130	1K	35
Et6Bben. ene	*0-00198	U p a1	0-099K	0-1180		mF/gF		119	70 - 130	17	35
m-z BENE h y-z BENE	*0-0039K	U p a1	0-199	0-23K4		mF/gF		119	70 - 130	17	35
o-z BENE	*0-00198	U p a1	0-099K	0-1185		mF/gF		119	70 - 130	13	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	354		70 - 3/ 0
3,4-di-fluorobenzene (Surr)	h3		70 - 3/ 0

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

Lab Sample ID: MB 880-35915/1-A

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 35915

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
G&soline (&nFe) rF&nics	*50-0	U	50-0	mF/gF		10/03/22 08:31	10/03/22 09:5K	1
fG() dCK-C10								
Diesel (&nFe) rF&nics f) ver	*50-0	U	50-0	mF/gF		10/03/22 08:31	10/03/22 09:5K	1
C10-C28d								
) II (&nFe) rF&nics f) ver C28-C3Kd	*50-0	U	50-0	mF/gF		10/03/22 08:31	10/03/22 09:5K	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
3-c t lorooaTne	302		70 - 3/ 0	30:0/ :55 016' 3	30:0/ :55 0h6 2	3
o-yer+ t en9I	331		70 - 3/ 0	30:0/ :55 016' 3	30:0/ :55 0h6 2	3

Lab Sample ID: LCS 880-35915/2-A

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
G&soline (&nFe) rF&nics	1000	1044		mF/gF		104	70 - 130
fG() dCK-C10							
Diesel (&nFe) rF&nics f) ver	1000	10K2		mF/gF		10K	70 - 130
C10-C28d							

EuroRns C&rlsb&O

QC Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

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

Lab Sample ID: LCS 880-35915/2-A

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 35915

Surrogate	LCS %Recovery	LCS Qualifier	Limits
3-c t l o r o o a p n e	355		70 - 3 / 0
o-yer+t en9l	3 / 3	S3C	70 - 3 / 0

Lab Sample ID: LCSD 880-35915/3-A

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 35915

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
G&soline (&nFe) rF&nics	1000	10K4		mF/gF		10K	70 - 130	2	20
fG() dCK-C10									
Diesel (&nFe) rF&nics f) ver	1000	1157		mF/gF		11K	70 - 130	9	20
C10-C28d									
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
3-c t l o r o o a p n e	35h		70 - 3 / 0						
o-yer+t en9l	3 / h	S3C	70 - 3 / 0						

Lab Sample ID: 890-3112-A-1-B MS

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 35915

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
G&soline (&nFe) rF&nics	* 50-0	U	998	881-5		mF/gF		8K	70 - 130		
fG() dCK-C10											
Diesel (&nFe) rF&nics f) ver	* 50-0	U	998	79K-4		mF/gF		78	70 - 130		
C10-C28d											
Surrogate	MS %Recovery	MS Qualifier	Limits								
3-c t l o r o o a p n e	75		70 - 3 / 0								
o-yer+t en9l	27	S3-	70 - 3 / 0								

Lab Sample ID: 890-3112-A-1-C MSD

Matrix: Solid

Analysis Batch: 35895

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 35915

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
G&soline (&nFe) rF&nics	* 50-0	U	999	845-9		mF/gF		83	70 - 130	4	20
fG() dCK-C10											
Diesel (&nFe) rF&nics f) ver	* 50-0	U	999	794-2		mF/gF		77	70 - 130	0	20
C10-C28d											
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
3-c t l o r o o a p n e	75		70 - 3 / 0								
o-yer+t en9l	22	S3-	70 - 3 / 0								

EuroRns C&rsb&O

QC Sample Results

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-36131/1-A

Matrix: Solid

Analysis Batch: 36132

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6loriOe	*500	U	500	mF/gF			10/05/22 08:54	1

Lab Sample ID: LCS 880-36131/2-A

Matrix: Solid

Analysis Batch: 36132

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
C6loriOe	250	2K48		mF/gF		10K	90 - 110

Lab Sample ID: LCSD 880-36131/3-A

Matrix: Solid

Analysis Batch: 36132

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
C6loriOe	250	2277		mF/gF		91	90 - 110	15	20

Lab Sample ID: 890-3125-A-1-E MS

Matrix: Solid

Analysis Batch: 36132

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
C6loriOe	3K41	a1	253	25541	a1	mF/gF		87	90 - 110

Lab Sample ID: 890-3125-A-1-F MSD

Matrix: Solid

Analysis Batch: 36132

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
C6loriOe	3K41	a1	253	2KK8		mF/gF		91	90 - 110	4	20

QC Association Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

GC VOA

Analysis Batch: 36055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3122-1	FS08A	Total/NA	Solid	8021B	36062
890-3122-2	FS09A	Total/NA	Solid	8021B	36062
890-3122-3	FS10A	Total/NA	Solid	8021B	36062
MB 880-36062/5-A	Method Blank	Total/NA	Solid	8021B	36062
LCS 880-36062/1-A	Lab Control Sample	Total/NA	Solid	8021B	36062
LCSD 880-36062/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	36062
890-3122-1 MS	FS08A	Total/NA	Solid	8021B	36062
890-3122-1 MSD	FS08A	Total/NA	Solid	8021B	36062

Prep Batch: 36062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3122-1	FS08A	Total/NA	Solid	5035	
890-3122-2	FS09A	Total/NA	Solid	5035	
890-3122-3	FS10A	Total/NA	Solid	5035	
MB 880-36062/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-36062/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-36062/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3122-1 MS	FS08A	Total/NA	Solid	5035	
890-3122-1 MSD	FS08A	Total/NA	Solid	5035	

Analysis Batch: 36106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3122-1	FS08A	Total/NA	Solid	Total BTEX	
890-3122-2	FS09A	Total/NA	Solid	Total BTEX	
890-3122-3	FS10A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 35895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3122-1	FS08A	Total/NA	Solid	8015B NM	35915
890-3122-2	FS09A	Total/NA	Solid	8015B NM	35915
890-3122-3	FS10A	Total/NA	Solid	8015B NM	35915
MB 880-35915/1-A	Method Blank	Total/NA	Solid	8015B NM	35915
LCS 880-35915/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	35915
LCSD 880-35915/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	35915
890-3112-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	35915
890-3112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	35915

Prep Batch: 35915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3122-1	FS08A	Total/NA	Solid	8015NM Prep	
890-3122-2	FS09A	Total/NA	Solid	8015NM Prep	
890-3122-3	FS10A	Total/NA	Solid	8015NM Prep	
MB 880-35915/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-35915/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-35915/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3112-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3112-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

GC Semi VOA

Analysis Batch: 36042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3122-1	FS08A	Total/NA	Solid	8015 NM	
890-3122-2	FS09A	Total/NA	Solid	8015 NM	
890-3122-3	FS10A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 36131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3122-1	FS08A	Soluble	Solid	DI Leach	
890-3122-2	FS09A	Soluble	Solid	DI Leach	
890-3122-3	FS10A	Soluble	Solid	DI Leach	
MB 880-36131/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-36131/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-36131/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3125-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3125-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 36132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3122-1	FS08A	Soluble	Solid	300.0	36131
890-3122-2	FS09A	Soluble	Solid	300.0	36131
890-3122-3	FS10A	Soluble	Solid	300.0	36131
MB 880-36131/1-A	Method Blank	Soluble	Solid	300.0	36131
LCS 880-36131/2-A	Lab Control Sample	Soluble	Solid	300.0	36131
LCSD 880-36131/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	36131
890-3125-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	36131
890-3125-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	36131

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Lab Chronicle

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Client Sample ID: FS08A**Date Collected: 09/30/22 10:20****Date Received: 09/30/22 12:31****Lab Sample ID: 890-3122-1****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	36062	10/04/22 13:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36055	10/04/22 16:27	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36106	10/04/22 20:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36042	10/04/22 09:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	35915	10/03/22 08:31	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35895	10/03/22 14:30	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	36131	10/05/22 08:00	CH	EET MID
Soluble	Analysis	300.0		1			36132	10/05/22 13:47	CH	EET MID

Client Sample ID: FS09A**Date Collected: 09/30/22 10:25****Date Received: 09/30/22 12:31****Lab Sample ID: 890-3122-2****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			4.98 g	5 mL	36062	10/04/22 13:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36055	10/04/22 16:53	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36106	10/04/22 20:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36042	10/04/22 09:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	35915	10/03/22 08:31	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35895	10/03/22 14:51	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	36131	10/05/22 08:00	CH	EET MID
Soluble	Analysis	300.0		1			36132	10/05/22 13:53	CH	EET MID

Client Sample ID: FS10A**Date Collected: 09/30/22 10:30****Date Received: 09/30/22 12:31****Lab Sample ID: 890-3122-3****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	36062	10/04/22 13:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	36055	10/04/22 17:19	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			36106	10/04/22 20:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			36042	10/04/22 09:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	35915	10/03/22 08:31	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	35895	10/03/22 15:32	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	36131	10/05/22 08:00	CH	EET MID
Soluble	Analysis	300.0		1			36132	10/05/22 13:59	CH	EET MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

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

Method Summary

Client: Ensolum
Project/Site: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

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: EAST VACCUM UNIT 1904-001

Job ID: 890-3122-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3122-1	FS08A	Solid	09/30/22 10:20	09/30/22 12:31	2.5
890-3122-2	FS09A	Solid	09/30/22 10:25	09/30/22 12:31	2.5
890-3122-3	FS10A	Solid	09/30/22 10:30	09/30/22 12:31	2.5

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Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Bill to: (if different)
Company Name:	Company Name:
Address:	Address:
City, State ZIP:	City, State ZIP:
Phone:	Email:

Project Name:	Project Number:	Project Location:	Sampler's Name:	P.O. #:
817-683-2503	08D2057008	32.51384, -108.44916	Julianne Falcovick	
SAMPLE RECEIPT Samples Received Intact: ☒ Yes ☐ No Cooler Custody Seals: ☒ Yes ☐ No Sample Custody Seals: ☒ Yes ☐ No Total Containers: _____				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code
FS 08	S	9-30-22	10:20	2.5'	C	1	890-3122 Chain of Custody	
FS 09	S	9-30-22	10:25	2.5'	C	1		
FS 10	S	9-30-22	10:30	2.5'	C	1		

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471	

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Julianne Falcovick</i>	<i>Don Cup</i>	9-30-22 10:31

Revised Date: 08/22/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3122-1

SDG Number: 03D2057008

Login Number: 3122

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.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3122-1

SDG Number: 03D2057008

Login Number: 3122

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 10/03/22 08:40 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/30/2023 2:13:59 PM

JOB DESCRIPTION

Maverick EVGSAU 1904-001
SDG NUMBER 03D2057008

JOB NUMBER

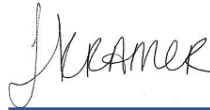
890-4340-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
3/30/2023 2:13:59 PM

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

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Laboratory Job ID: 890-4340-1
SDG: 03D2057008

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Definitions/Glossary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

Job ID: 890-4340-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-4340-1
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Receipt

The sample was received on 3/17/2023 9:07 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS06 (890-4340-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49424 and analytical batch 880-49607 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-26043-A-3-F MS) and (880-26043-A-3-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

Client Sample ID: SS06

Lab Sample ID: 890-4340-1

Date Collected: 03/16/23 15:00

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 09:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 09:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 09:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/24/23 13:17	03/28/23 09:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 09:26	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/24/23 13:17	03/28/23 09:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	03/24/23 13:17	03/28/23 09:26	1
1,4-Difluorobenzene (Surr)	92		70 - 130	03/24/23 13:17	03/28/23 09:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			03/28/23 10:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/28/23 10:42	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		03/24/23 09:44	03/27/23 19:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/23 09:44	03/27/23 19:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 09:44	03/27/23 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	03/24/23 09:44	03/27/23 19:18	1
o-Terphenyl	97		70 - 130	03/24/23 09:44	03/27/23 19:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52.3		4.95	mg/Kg			03/29/23 18:03	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

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)
880-26040-A-1-G MS	Matrix Spike	103	106
880-26040-A-1-H MSD	Matrix Spike Duplicate	106	92
890-4340-1	SS06	94	92
LCS 880-49424/1-A	Lab Control Sample	97	110
LCSD 880-49424/2-A	Lab Control Sample Dup	97	110
MB 880-49424/5-A	Method Blank	90	97
MB 880-49607/8	Method Blank	88	98
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)
880-26043-A-3-F MS	Matrix Spike	136 S1+	116
880-26043-A-3-G MSD	Matrix Spike Duplicate	133 S1+	113
890-4340-1	SS06	107	97
LCS 880-49384/2-A	Lab Control Sample	117	107
LCSD 880-49384/3-A	Lab Control Sample Dup	118	107
MB 880-49384/1-A	Method Blank	106	106
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49424/5-A

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49424

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/23 13:17	03/28/23 01:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	03/24/23 13:17	03/28/23 01:21	1
1,4-Difluorobenzene (Surr)	97		70 - 130	03/24/23 13:17	03/28/23 01:21	1

Lab Sample ID: LCS 880-49424/1-A

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1022		mg/Kg		102	70 - 130
Toluene	0.100	0.09998		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.08973		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1763		mg/Kg		88	70 - 130
o-Xylene	0.100	0.08969		mg/Kg		90	70 - 130

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

Lab Sample ID: LCSD 880-49424/2-A

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1054		mg/Kg		105	70 - 130	3	35
Toluene	0.100	0.1013		mg/Kg		101	70 - 130	1	35
Ethylbenzene	0.100	0.09252		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1812		mg/Kg		91	70 - 130	3	35
o-Xylene	0.100	0.09207		mg/Kg		92	70 - 130	3	35

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

Lab Sample ID: 880-26040-A-1-G MS

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0996	0.07030		mg/Kg		71	70 - 130
Toluene	0.00352	F1	0.0996	0.06654	F1	mg/Kg		63	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

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

Lab Sample ID: 880-26040-A-1-G MS

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0996	0.06359	F1	mg/Kg		63	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.199	0.1269	F1	mg/Kg		64	70 - 130
o-Xylene	<0.00200	U F1	0.0996	0.06736	F1	mg/Kg		67	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-26040-A-1-H MSD

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0990	0.05109	F1	mg/Kg		52	70 - 130	32	35
Toluene	0.00352	F1	0.0990	0.05734	F1	mg/Kg		54	70 - 130	15	35
Ethylbenzene	<0.00200	U F1	0.0990	0.05554	F1	mg/Kg		55	70 - 130	14	35
m-Xylene & p-Xylene	<0.00401	U F1	0.198	0.1111	F1	mg/Kg		56	70 - 130	13	35
o-Xylene	<0.00200	U F1	0.0990	0.05954	F1	mg/Kg		59	70 - 130	12	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: MB 880-49607/8

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			03/27/23 13:45	1
Toluene	<0.00200	U	0.00200	mg/Kg			03/27/23 13:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			03/27/23 13:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			03/27/23 13:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			03/27/23 13:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			03/27/23 13:45	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130		03/27/23 13:45	1
1,4-Difluorobenzene (Surr)	98		70 - 130		03/27/23 13:45	1

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

Lab Sample ID: MB 880-49384/1-A

Matrix: Solid

Analysis Batch: 49562

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49384

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 09:44	03/27/23 08:47	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

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

Lab Sample ID: MB 880-49384/1-A

Matrix: Solid

Analysis Batch: 49562

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49384

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:44	03/27/23 08:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:44	03/27/23 08:47	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	106		70 - 130			03/24/23 09:44	03/27/23 08:47	1
o-Terphenyl	106		70 - 130			03/24/23 09:44	03/27/23 08:47	1

Lab Sample ID: LCS 880-49384/2-A

Matrix: Solid

Analysis Batch: 49562

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49384

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1113		mg/Kg		111	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1028		mg/Kg		103	70 - 130	
Surrogate	LCS	LCS	Limits					
	%Recovery	Qualifier						
1-Chlorooctane	117		70 - 130					
o-Terphenyl	107		70 - 130					

Lab Sample ID: LCSD 880-49384/3-A

Matrix: Solid

Analysis Batch: 49562

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49384

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	969.4		mg/Kg		97	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	1000	996.4		mg/Kg		100	70 - 130	3	20
Surrogate	LCSD	LCSD	Limits						
	%Recovery	Qualifier							
1-Chlorooctane	118		70 - 130						
o-Terphenyl	107		70 - 130						

Lab Sample ID: 880-26043-A-3-F MS

Matrix: Solid

Analysis Batch: 49562

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49384

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
	Result	Qualifier								
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	883.4		mg/Kg		86	70 - 130	
Diesel Range Organics (Over C10-C28)	117		998	888.4		mg/Kg		77	70 - 130	
Surrogate	MS	MS	Limits							
	%Recovery	Qualifier								
1-Chlorooctane	136	S1+	70 - 130							
o-Terphenyl	116		70 - 130							

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

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

Lab Sample ID: 880-26043-A-3-G MSD

Matrix: Solid

Analysis Batch: 49562

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49384

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	878.2		mg/Kg		86	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	117		999	874.9		mg/Kg		76	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	133	S1+	70 - 130								
o-Terphenyl	113		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49795/1-A

Matrix: Solid

Analysis Batch: 49900

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/29/23 16:00	1

Lab Sample ID: LCS 880-49795/2-A

Matrix: Solid

Analysis Batch: 49900

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	247.1		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-49795/3-A

Matrix: Solid

Analysis Batch: 49900

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.2		mg/Kg		102	90 - 110	3	20

Lab Sample ID: 880-26087-A-1-C MS

Matrix: Solid

Analysis Batch: 49900

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	82.8		253	332.5		mg/Kg		99	90 - 110

Lab Sample ID: 880-26087-A-1-D MSD

Matrix: Solid

Analysis Batch: 49900

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	82.8		253	335.1		mg/Kg		100	90 - 110	1	20

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QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

GC VOA

Prep Batch: 49424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4340-1	SS06	Total/NA	Solid	5035	
MB 880-49424/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49424/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49424/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26040-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-26040-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4340-1	SS06	Total/NA	Solid	8021B	49424
MB 880-49424/5-A	Method Blank	Total/NA	Solid	8021B	49424
MB 880-49607/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-49424/1-A	Lab Control Sample	Total/NA	Solid	8021B	49424
LCSD 880-49424/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49424
880-26040-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	49424
880-26040-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49424

Analysis Batch: 49723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4340-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4340-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-49384/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49384/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49384/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26043-A-3-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-26043-A-3-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4340-1	SS06	Total/NA	Solid	8015B NM	49384
MB 880-49384/1-A	Method Blank	Total/NA	Solid	8015B NM	49384
LCS 880-49384/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49384
LCSD 880-49384/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49384
880-26043-A-3-F MS	Matrix Spike	Total/NA	Solid	8015B NM	49384
880-26043-A-3-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	49384

Analysis Batch: 49727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4340-1	SS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4340-1	SS06	Soluble	Solid	DI Leach	
MB 880-49795/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49795/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

HPLC/IC (Continued)

Leach Batch: 49795 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-49795/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26087-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-26087-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 49900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4340-1	SS06	Soluble	Solid	300.0	49795
MB 880-49795/1-A	Method Blank	Soluble	Solid	300.0	49795
LCS 880-49795/2-A	Lab Control Sample	Soluble	Solid	300.0	49795
LCSD 880-49795/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49795
880-26087-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	49795
880-26087-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49795

Lab Chronicle

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

Client Sample ID: SS06

Lab Sample ID: 890-4340-1

Date Collected: 03/16/23 15:00

Matrix: Solid

Date Received: 03/17/23 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	49424	03/24/23 13:17	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49607	03/28/23 09:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49723	03/28/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			49727	03/28/23 10:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49384	03/24/23 09:44	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49562	03/27/23 19:18	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	49795	03/29/23 09:33	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49900	03/29/23 18:03	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

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: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4340-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4340-1	SS06	Solid	03/16/23 15:00	03/17/23 09:07	0.25'

- 1
- 2
- 3
- 4
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- 14



Environment Testing
Xenoco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 505-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7650, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No:

Page 1 of 1
www.xenco.com

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marientfeld St Suite 400	Address:	601 N Marientfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, dhikanorov@ensolum.com

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

Project Name:		Maverick EYVGS AU 1904-001		Turn Around		Pres. Code		ANALYSIS REQUEST										Preservative Codes					
Project Number:		03D2057008		☒ Routine ☐ Rush														None: NO					
Project Location:		Lee County, NM		Due Date:														Cool: Cool					
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm														HCL: HC					
PO #:																		H ₂ SO ₄ : H ₂					
SAMPLE RECEIPT		Temp Blank:		Gas No		Wet Ice:														H ₃ PO ₄ : HP			
Samples Received Intact:		Yes No		Thermometer ID:		Correction Factor:														NaHSO ₄ : NABIS			
Cooler Custody Seals:		Yes No		N/A		Temperature Reading:														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 \$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
PN	Ananda Suf	3.17.23 0807			
1			4		
3					
5			6		

Printed Date: 08/24/2020 Row: 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4340-1

SDG Number: 03D2057008

Login Number: 4340

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4340-1

SDG Number: 03D2057008

Login Number: 4340

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/20/23 08:25 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/30/2023 2:15:04 PM

JOB DESCRIPTION

Maverick EVGSAU 1904-001
SDG NUMBER Lea County NM

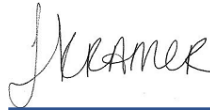
JOB NUMBER

890-4342-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
3/30/2023 2:15:04 PM

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

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Laboratory Job ID: 890-4342-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum

Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1

SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

Job ID: 890-4342-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4342-1

Receipt

The sample was received on 3/17/2023 9:07 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS03 (890-4342-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49424 and analytical batch 880-49607 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-49383/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49796 and analytical batch 880-49897 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. SS03 (890-4342-1)

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

Client Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

Client Sample ID: SS03

Lab Sample ID: 890-4342-1

Date Collected: 03/16/23 14:30

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 09:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 09:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 09:47	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/24/23 13:17	03/28/23 09:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 09:47	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/24/23 13:17	03/28/23 09:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/24/23 13:17	03/28/23 09:47	1
1,4-Difluorobenzene (Surr)	109		70 - 130	03/24/23 13:17	03/28/23 09:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/28/23 10:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/27/23 11:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 13:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 13:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	03/24/23 09:41	03/26/23 13:35	1
o-Terphenyl	100		70 - 130	03/24/23 09:41	03/26/23 13:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	49.6		4.96	mg/Kg			03/29/23 13:55	1

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Surrogate Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
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)
880-26040-A-1-G MS	Matrix Spike	103	106
880-26040-A-1-H MSD	Matrix Spike Duplicate	106	92
890-4342-1	SS03	101	109
LCS 880-49424/1-A	Lab Control Sample	97	110
LCSD 880-49424/2-A	Lab Control Sample Dup	97	110
MB 880-49424/5-A	Method Blank	90	97
MB 880-49607/8	Method Blank	88	98
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)
890-4342-1	SS03	96	100
890-4350-A-5-B MS	Matrix Spike	104	97
LCS 880-49383/2-A	Lab Control Sample	111	119
LCSD 880-49383/3-A	Lab Control Sample Dup	107	115
MB 880-49383/1-A	Method Blank	121	139 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49424/5-A

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49424

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 13:17	03/28/23 01:21	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/23 13:17	03/28/23 01:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	03/24/23 13:17	03/28/23 01:21	1
1,4-Difluorobenzene (Surr)	97		70 - 130	03/24/23 13:17	03/28/23 01:21	1

Lab Sample ID: LCS 880-49424/1-A

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1022		mg/Kg		102	70 - 130
Toluene	0.100	0.09998		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.08973		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	0.200	0.1763		mg/Kg		88	70 - 130
o-Xylene	0.100	0.08969		mg/Kg		90	70 - 130

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

Lab Sample ID: LCSD 880-49424/2-A

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1054		mg/Kg		105	70 - 130	3	35
Toluene	0.100	0.1013		mg/Kg		101	70 - 130	1	35
Ethylbenzene	0.100	0.09252		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1812		mg/Kg		91	70 - 130	3	35
o-Xylene	0.100	0.09207		mg/Kg		92	70 - 130	3	35

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

Lab Sample ID: 880-26040-A-1-G MS

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0996	0.07030		mg/Kg		71	70 - 130
Toluene	0.00352	F1	0.0996	0.06654	F1	mg/Kg		63	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

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

Lab Sample ID: 880-26040-A-1-G MS

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.0996	0.06359	F1	mg/Kg		63	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1	0.199	0.1269	F1	mg/Kg		64	70 - 130
o-Xylene	<0.00200	U F1	0.0996	0.06736	F1	mg/Kg		67	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-26040-A-1-H MSD

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49424

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0990	0.05109	F1	mg/Kg		52	70 - 130	32	35
Toluene	0.00352	F1	0.0990	0.05734	F1	mg/Kg		54	70 - 130	15	35
Ethylbenzene	<0.00200	U F1	0.0990	0.05554	F1	mg/Kg		55	70 - 130	14	35
m-Xylene & p-Xylene	<0.00401	U F1	0.198	0.1111	F1	mg/Kg		56	70 - 130	13	35
o-Xylene	<0.00200	U F1	0.0990	0.05954	F1	mg/Kg		59	70 - 130	12	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: MB 880-49607/8

Matrix: Solid

Analysis Batch: 49607

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			03/27/23 13:45	1
Toluene	<0.00200	U	0.00200	mg/Kg			03/27/23 13:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			03/27/23 13:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			03/27/23 13:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			03/27/23 13:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			03/27/23 13:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130		03/27/23 13:45	1
1,4-Difluorobenzene (Surr)	98		70 - 130		03/27/23 13:45	1

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

Lab Sample ID: MB 880-49383/1-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49383

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-49383/1-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49383

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			03/24/23 09:41	03/26/23 08:27	1
o-Terphenyl	139	S1+	70 - 130			03/24/23 09:41	03/26/23 08:27	1

Lab Sample ID: LCS 880-49383/2-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	971.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	868.0		mg/Kg		87	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	111		70 - 130				
o-Terphenyl	119		70 - 130				

Lab Sample ID: LCSD 880-49383/3-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.3		mg/Kg		89	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	752.9		mg/Kg		75	70 - 130	14	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	107		70 - 130						
o-Terphenyl	115		70 - 130						

Lab Sample ID: 890-4350-A-5-B MS

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	928.2		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1002		mg/Kg		98	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	104		70 - 130						
o-Terphenyl	97		70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49796/1-A

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/29/23 12:48	1

Lab Sample ID: LCS 880-49796/2-A

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

Lab Sample ID: LCSD 880-49796/3-A

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-4345-A-1-D MS

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	44.0		252	322.3		mg/Kg		110	90 - 110

Lab Sample ID: 890-4345-A-1-E MSD

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	44.0		252	321.9		mg/Kg		110	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

GC VOA

Prep Batch: 49424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4342-1	SS03	Total/NA	Solid	5035	
MB 880-49424/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49424/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49424/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26040-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-26040-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4342-1	SS03	Total/NA	Solid	8021B	49424
MB 880-49424/5-A	Method Blank	Total/NA	Solid	8021B	49424
MB 880-49607/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-49424/1-A	Lab Control Sample	Total/NA	Solid	8021B	49424
LCSD 880-49424/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49424
880-26040-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	49424
880-26040-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49424

Analysis Batch: 49724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4342-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4342-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4342-1	SS03	Total/NA	Solid	8015B NM	49383
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015B NM	49383
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49383
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49383
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49383

Analysis Batch: 49623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4342-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4342-1	SS03	Soluble	Solid	DI Leach	
MB 880-49796/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4345-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 49796 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 49897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4342-1	SS03	Soluble	Solid	300.0	49796
MB 880-49796/1-A	Method Blank	Soluble	Solid	300.0	49796
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	300.0	49796
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49796
890-4345-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	49796
890-4345-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49796

Lab Chronicle

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

Client Sample ID: SS03

Lab Sample ID: 890-4342-1

Date Collected: 03/16/23 14:30

Matrix: Solid

Date Received: 03/17/23 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	49424	03/24/23 13:17	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49607	03/28/23 09:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49724	03/28/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			49623	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 13:35	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 13:55	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
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: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4342-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4342-1	SS03	Solid	03/16/23 14:30	03/17/23 09:07	0.25'

- 1
- 2
- 3
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Environment Testing
Xerco

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 11 of 11

Project Manager:	Katei Jennings	Bill to: (if different)	Katei 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, drikanorov@ensolum.com

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

Project Name:		Maverick EVGSAU 1904-001		Turn Around				Pres. Code		ANALYSIS REQUEST		Preservative Codes	
Project Number:		03D2057008		☒ Routine ☐ Rush								None: NO	
Project Location:		Lea County, NM		Due Date:								Cool: Cool	
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm								HCL: HC	
PO #:												H ₂ SO ₄ : H ₂	
SAMPLE RECEIPT		Temp Blank:		☒ Yes ☐ No		Well Ice:		☒ Yes ☐ No				H ₃ PO ₄ : HP	
Samples Received Intact:		☒ Yes ☐ No		Thermometer ID:				<i>Insert</i>				NaHSO ₄ : NABIS	
Cooler Custody Seals:		☒ Yes ☐ No		Correction Factor:				<i>-0.0</i>				Na ₂ S ₂ O ₃ : NaSO ₃	
Sample Custody Seals:		☒ Yes ☐ No		Temperature Reading:				<i>2.0</i>				Zn Acetate+NaOH: Zn	
Total Containers:				Corrected Temperature:				<i>1.8</i>				NaOH+Ascorbic Acid: SASC	
Parameters													
RIDES (EPA: 300.0)													
015)													
8021													
890-4342 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	Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP	6010:	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U					Hg:	1631 / 245.1	7470 / 7471					

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins 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 \$45.00 will be applied to each project and a charge of \$3 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
DK	Amanda Steg	3-17-23 0901			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4342-1

SDG Number: Lea County NM

Login Number: 4342

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4342-1

SDG Number: Lea County NM

Login Number: 4342

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/20/23 08:25 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/30/2023 2:15:03 PM

JOB DESCRIPTION

Maverick EVGSAU 1904-001
SDG NUMBER Lea County NM

JOB NUMBER

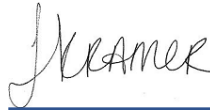
890-4343-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad**Job Notes**

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

Authorization

Generated
3/30/2023 2:15:03 PM

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

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Laboratory Job ID: 890-4343-1
SDG: Lea County NM

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Definitions/Glossary

Client: Ensolum

Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1

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: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

Job ID: 890-4343-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4343-1

Receipt

The sample was received on 3/17/2023 9:07 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS02 (890-4343-1).

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 sample was outside control limits: (MB 880-49383/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49796 and analytical batch 880-49897 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.SS02 (890-4343-1)

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

Client Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

Client Sample ID: SS02

Lab Sample ID: 890-4343-1

Date Collected: 03/16/23 14:20

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 19:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 19:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 19:04	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/24/23 10:32	03/27/23 19:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 19:04	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/24/23 10:32	03/27/23 19:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/24/23 10:32	03/27/23 19:04	1
1,4-Difluorobenzene (Surr)	96		70 - 130	03/24/23 10:32	03/27/23 19:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/28/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/27/23 11:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 13:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 13:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	03/24/23 09:41	03/26/23 13:56	1
o-Terphenyl	108		70 - 130	03/24/23 09:41	03/26/23 13:56	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38.9		5.01	mg/Kg			03/29/23 14:00	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
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)
880-25959-A-1-D MS	Matrix Spike	108	89
880-25959-A-1-E MSD	Matrix Spike Duplicate	103	92
890-4343-1	SS02	108	96
LCS 880-49395/1-A	Lab Control Sample	112	97
LCSD 880-49395/2-A	Lab Control Sample Dup	104	91
MB 880-49395/5-A	Method Blank	98	80
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)
890-4343-1	SS02	103	108
890-4350-A-5-B MS	Matrix Spike	104	97
LCS 880-49383/2-A	Lab Control Sample	111	119
LCSD 880-49383/3-A	Lab Control Sample Dup	107	115
MB 880-49383/1-A	Method Blank	121	139 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49395/5-A

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49395

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/23 10:32	03/27/23 11:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	03/24/23 10:32	03/27/23 11:05	1
1,4-Difluorobenzene (Surr)	80		70 - 130	03/24/23 10:32	03/27/23 11:05	1

Lab Sample ID: LCS 880-49395/1-A

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09176		mg/Kg		92	70 - 130
Toluene	0.100	0.09833		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09729		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2024		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1015		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-49395/2-A

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08376		mg/Kg		84	70 - 130	9	35
Toluene	0.100	0.09163		mg/Kg		92	70 - 130	7	35
Ethylbenzene	0.100	0.08997		mg/Kg		90	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1879		mg/Kg		94	70 - 130	7	35
o-Xylene	0.100	0.09436		mg/Kg		94	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 880-25959-A-1-D MS

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.08772		mg/Kg		88	70 - 130
Toluene	<0.00199	U	0.0998	0.09353		mg/Kg		94	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

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

Lab Sample ID: 880-25959-A-1-D MS

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.08929		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1887		mg/Kg		95	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09274		mg/Kg		93	70 - 130
Surrogate	%Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene (Surr)	108		70 - 130						
1,4-Difluorobenzene (Surr)	89		70 - 130						

Lab Sample ID: 880-25959-A-1-E MSD

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09134		mg/Kg		91	70 - 130	4	35
Toluene	<0.00199	U	0.100	0.09599		mg/Kg		96	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.100	0.09204		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1852		mg/Kg		92	70 - 130	2	35
o-Xylene	<0.00199	U	0.100	0.09141		mg/Kg		91	70 - 130	1	35
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	103		70 - 130								
1,4-Difluorobenzene (Surr)	92		70 - 130								

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

Lab Sample ID: MB 880-49383/1-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49383

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Surrogate	%Recovery	MB Qualifier	MB Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			03/24/23 09:41	03/26/23 08:27	1
o-Terphenyl	139	S1+	70 - 130			03/24/23 09:41	03/26/23 08:27	1

Lab Sample ID: LCS 880-49383/2-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	971.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	868.0		mg/Kg		87	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-49383/2-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49383

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: LCSD 880-49383/3-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.3		mg/Kg		89	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	752.9		mg/Kg		75	70 - 130	14	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: 890-4350-A-5-B MS

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	928.2		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1002		mg/Kg		98	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	97		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49796/1-A

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/29/23 12:48	1

Lab Sample ID: LCS 880-49796/2-A

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-49796/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-4345-A-1-D MS				Client Sample ID: Matrix Spike							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	44.0		252	322.3		mg/Kg		110	90 - 110		

Lab Sample ID: 890-4345-A-1-E MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	44.0		252	321.9		mg/Kg		110	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

GC VOA

Prep Batch: 49395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4343-1	SS02	Total/NA	Solid	5035	
MB 880-49395/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49395/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49395/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25959-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-25959-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4343-1	SS02	Total/NA	Solid	8021B	49395
MB 880-49395/5-A	Method Blank	Total/NA	Solid	8021B	49395
LCS 880-49395/1-A	Lab Control Sample	Total/NA	Solid	8021B	49395
LCSD 880-49395/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49395
880-25959-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	49395
880-25959-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49395

Analysis Batch: 49706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4343-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4343-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4343-1	SS02	Total/NA	Solid	8015B NM	49383
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015B NM	49383
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49383
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49383
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49383

Analysis Batch: 49624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4343-1	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4343-1	SS02	Soluble	Solid	DI Leach	
MB 880-49796/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4345-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4345-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

HPLC/IC

Analysis Batch: 49897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4343-1	SS02	Soluble	Solid	300.0	49796
MB 880-49796/1-A	Method Blank	Soluble	Solid	300.0	49796
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	300.0	49796
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49796
890-4345-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	49796
890-4345-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49796

Lab Chronicle

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

Client Sample ID: SS02
Date Collected: 03/16/23 14:20
Date Received: 03/17/23 09:07

Lab Sample ID: 890-4343-1
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	49395	03/24/23 10:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49565	03/27/23 19:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49706	03/28/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			49624	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 13:56	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 14:00	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

- 1
- 2
- 3
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- 13
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Method Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4343-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4343-1	SS02	Solid	03/16/23 14:20	03/17/23 09:07	0.25

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Environment Testing
Xerco

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

Chain of Custody

Work Order No:

Page 1 of 1
www.xenco.com

Project Manager:	Katei Jennings	Bill to: (if different)	Katei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Mariefeld St Suite 400	Address:	601 N Mariefeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	Kennings@ensolum.com, dnikanorov@ensolum.com

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

ANALYSIS REQUEST						
Pres. Code						
Project Name:		Maverick EVGSAU 1904-001		Turn Around		
Project Number:		03D2057008		☒ Routine ☐ Rush		
Project Location:		Lea County, NM		Due Date:		
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm		
PO #:						
SAMPLE RECEIPT		Temp Blank:		☒ Yes ☐ No		
		Samples Received Intact:	☒ Yes ☐ No	Thermometer ID:	NIM007	
Cooler Custody Seals:		☒ Yes ☐ No		N/A	Correction Factor:	-0.2
Sample Custody Seals:		☒ Yes ☐ No		N/A	Temperature Reading:	2.0
Total Containers:				Corrected Temperature:	1.8	
Parameters						
RIDES (EPA: 300.0)						
(015)						
(8021)						
 890-4343 Chain of Custody						
Preservative Codes						
None NO		DI Water: H ₂ O				
Cool: Cool		MeOH: Me				
HCL: HC		HNO ₃ : HN				
H ₂ SO ₄ : H ₂		NaOH: Na				
H ₃ PO ₄ : HP						
NaHSO ₄ : NABIS						
Na ₂ S ₂ O ₃ : NaSO ₃						
Zn Acetate+NaOH: Zn						
NaOH+Ascorbic Acid: SAMPc						

[illegible]

Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed				TCCLP / 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 \$35.00 will be applied to each project and a charge of \$3 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		3-17-23 907					
3							
5							
Printed Date: 08/28/2020 Row: 2020							

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4343-1

SDG Number: Lea County NM

Login Number: 4343

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: 890-4343-1

SDG Number: Lea County NM

Login Number: 4343

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/20/23 08:25 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/30/2023 2:15:36 PM

JOB DESCRIPTION

Maverick EVGSAU 1904-001
SDG NUMBER 03D2057008

JOB NUMBER

890-4344-1

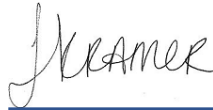
Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Authorization



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3/30/2023 2:15:36 PM

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

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Laboratory Job ID: 890-4344-1
SDG: 03D2057008

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Definitions/Glossary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

Job ID: 890-4344-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-4344-1
-----------	-----------------------------

Receipt

The sample was received on 3/17/2023 9:07 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS05 (890-4344-1).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49613 and analytical batch 880-49785 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-49383/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-49796 and analytical batch 880-49897 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.SS05 (890-4344-1)

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: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

Client Sample ID: SS05

Lab Sample ID: 890-4344-1

Date Collected: 03/16/23 14:50

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/27/23 11:12	03/29/23 12:20	1
Toluene	<0.00199	U F1	0.00199	mg/Kg		03/27/23 11:12	03/29/23 12:20	1
Ethylbenzene	<0.00199	U F2 F1	0.00199	mg/Kg		03/27/23 11:12	03/29/23 12:20	1
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.00398	mg/Kg		03/27/23 11:12	03/29/23 12:20	1
o-Xylene	<0.00199	U F2 F1	0.00199	mg/Kg		03/27/23 11:12	03/29/23 12:20	1
Xylenes, Total	<0.00398	U F2 F1	0.00398	mg/Kg		03/27/23 11:12	03/29/23 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	03/27/23 11:12	03/29/23 12:20	1
1,4-Difluorobenzene (Surr)	106		70 - 130	03/27/23 11:12	03/29/23 12:20	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/29/23 16:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/27/23 11:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 14:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 14:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/24/23 09:41	03/26/23 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	03/24/23 09:41	03/26/23 14:18	1
o-Terphenyl	112		70 - 130	03/24/23 09:41	03/26/23 14:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.8		4.97	mg/Kg			03/29/23 14:05	1

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Surrogate Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

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)
890-4344-1	SS05	84	106
890-4344-1 MS	SS05	88	118
890-4344-1 MSD	SS05	106	105
LCS 880-49613/1-A	Lab Control Sample	106	108
LCSD 880-49613/2-A	Lab Control Sample Dup	102	113
MB 880-49613/5-A	Method Blank	74	82
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4344-1	SS05	105	112
890-4350-A-5-B MS	Matrix Spike	104	97
LCS 880-49383/2-A	Lab Control Sample	111	119
LCSD 880-49383/3-A	Lab Control Sample Dup	107	115
MB 880-49383/1-A	Method Blank	121	139 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49613/5-A

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49613

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/27/23 11:12	03/29/23 11:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/27/23 11:12	03/29/23 11:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	03/27/23 11:12	03/29/23 11:58	1
1,4-Difluorobenzene (Surr)	82		70 - 130	03/27/23 11:12	03/29/23 11:58	1

Lab Sample ID: LCS 880-49613/1-A

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1046		mg/Kg		105	70 - 130
Toluene	0.100	0.09913		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09684		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2063		mg/Kg		103	70 - 130
o-Xylene	0.100	0.1040		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-49613/2-A

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1045		mg/Kg		105	70 - 130	0	35
Toluene	0.100	0.08648		mg/Kg		86	70 - 130	14	35
Ethylbenzene	0.100	0.07737		mg/Kg		77	70 - 130	22	35
m-Xylene & p-Xylene	0.200	0.1550		mg/Kg		77	70 - 130	28	35
o-Xylene	0.100	0.07896		mg/Kg		79	70 - 130	27	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 890-4344-1 MS

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.09065		mg/Kg		91	70 - 130
Toluene	<0.00199	U F1	0.0998	0.06630	F1	mg/Kg		66	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

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

Lab Sample ID: 890-4344-1 MS

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F2 F1	0.0998	0.05617	F1	mg/Kg		56	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1087	F1	mg/Kg		54	70 - 130
o-Xylene	<0.00199	U F2 F1	0.0998	0.05628	F1	mg/Kg		56	70 - 130
Surrogate	%Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene (Surr)	88		70 - 130						
1,4-Difluorobenzene (Surr)	118		70 - 130						

Lab Sample ID: 890-4344-1 MSD

Matrix: Solid

Analysis Batch: 49785

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 49613

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.09456		mg/Kg		96	70 - 130	4	35
Toluene	<0.00199	U F1	0.0990	0.08943		mg/Kg		90	70 - 130	30	35
Ethylbenzene	<0.00199	U F2 F1	0.0990	0.08761	F2	mg/Kg		88	70 - 130	44	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.198	0.1814	F2	mg/Kg		92	70 - 130	50	35
o-Xylene	<0.00199	U F2 F1	0.0990	0.09115	F2	mg/Kg		92	70 - 130	47	35
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	106		70 - 130								
1,4-Difluorobenzene (Surr)	105		70 - 130								

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

Lab Sample ID: MB 880-49383/1-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49383

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Surrogate	%Recovery	MB Qualifier	MB Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			03/24/23 09:41	03/26/23 08:27	1
o-Terphenyl	139	S1+	70 - 130			03/24/23 09:41	03/26/23 08:27	1

Lab Sample ID: LCS 880-49383/2-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	971.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	868.0		mg/Kg		87	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

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

Lab Sample ID: LCS 880-49383/2-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49383

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: LCSD 880-49383/3-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.3		mg/Kg		89	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	752.9		mg/Kg		75	70 - 130	14	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: 890-4350-A-5-B MS

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	928.2		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1002		mg/Kg		98	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	97		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49796/1-A

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/29/23 12:48	1

Lab Sample ID: LCS 880-49796/2-A

Matrix: Solid

Analysis Batch: 49897

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-49796/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-4345-A-1-D MS				Client Sample ID: Matrix Spike							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	44.0		252	322.3		mg/Kg		110	90 - 110		

Lab Sample ID: 890-4345-A-1-E MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	44.0		252	321.9		mg/Kg		110	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

GC VOA

Prep Batch: 49613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4344-1	SS05	Total/NA	Solid	5035	
MB 880-49613/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49613/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49613/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4344-1 MS	SS05	Total/NA	Solid	5035	
890-4344-1 MSD	SS05	Total/NA	Solid	5035	

Analysis Batch: 49785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4344-1	SS05	Total/NA	Solid	8021B	49613
MB 880-49613/5-A	Method Blank	Total/NA	Solid	8021B	49613
LCS 880-49613/1-A	Lab Control Sample	Total/NA	Solid	8021B	49613
LCSD 880-49613/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49613
890-4344-1 MS	SS05	Total/NA	Solid	8021B	49613
890-4344-1 MSD	SS05	Total/NA	Solid	8021B	49613

Analysis Batch: 49888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4344-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4344-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4344-1	SS05	Total/NA	Solid	8015B NM	49383
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015B NM	49383
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49383
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49383
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49383

Analysis Batch: 49625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4344-1	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4344-1	SS05	Soluble	Solid	DI Leach	
MB 880-49796/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4345-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4345-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

HPLC/IC

Analysis Batch: 49897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4344-1	SS05	Soluble	Solid	300.0	49796
MB 880-49796/1-A	Method Blank	Soluble	Solid	300.0	49796
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	300.0	49796
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49796
890-4345-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	49796
890-4345-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49796

Lab Chronicle

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

Client Sample ID: SS05 Lab Sample ID: 890-4344-1
Date Collected: 03/16/23 14:50 Matrix: Solid
Date Received: 03/17/23 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	49613	03/27/23 11:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49785	03/29/23 12:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49888	03/29/23 16:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			49625	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 14:18	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 14:05	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

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: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4344-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4344-1	SS05	Solid	03/16/23 14:50	03/17/23 09:07	0.25'

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



Chain of Custody

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

Work Order No.: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, 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, dhikanorov@ensolum.com

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

[illegible][illegible]

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

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
OK	Amara Yusuf	3-17-23 0007			
1					
3					
5					
6					

Revised Date: 08/23/2020 Row: 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4344-1

SDG Number: 03D2057008

Login Number: 4344

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4344-1

SDG Number: 03D2057008

Login Number: 4344

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/20/23 08:25 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/30/2023 2:16:09 PM

JOB DESCRIPTION

Maverick EVGSAU 1904-001
SDG NUMBER 03D2057008

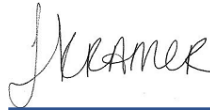
JOB NUMBER

890-4345-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad**Job Notes**

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

Authorization

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3/30/2023 2:16:09 PM

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

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Laboratory Job ID: 890-4345-1
SDG: 03D2057008

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Definitions/Glossary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

Job ID: 890-4345-1

Laboratory: Eurofins Carlsbad

Narrative	
	Job Narrative 890-4345-1

Receipt

The sample was received on 3/17/2023 9:07 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS01 (890-4345-1).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: SS01 (890-4345-1), (890-4353-A-34-C), (890-4353-A-34-A MS) and (890-4353-A-34-B MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-49383/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

Client Sample ID: SS01

Lab Sample ID: 890-4345-1

Date Collected: 03/16/23 14:10

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 22:48	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 22:48	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 22:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/28/23 22:48	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/24/23 14:10	03/28/23 22:48	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/23 14:10	03/28/23 22:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	179	S1+	70 - 130	03/24/23 14:10	03/28/23 22:48	1
1,4-Difluorobenzene (Surr)	87		70 - 130	03/24/23 14:10	03/28/23 22:48	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/29/23 12:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/27/23 11:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 14:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 14:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 14:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	03/24/23 09:41	03/26/23 14:41	1
o-Terphenyl	98		70 - 130	03/24/23 09:41	03/26/23 14:41	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.0		5.04	mg/Kg			03/29/23 14:10	1

Surrogate Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

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)
890-4345-1	SS01	179 S1+	87
890-4353-A-34-A MS	Matrix Spike	143 S1+	94
890-4353-A-34-B MSD	Matrix Spike Duplicate	138 S1+	99
LCS 880-49447/1-A	Lab Control Sample	114	102
LCSD 880-49447/2-A	Lab Control Sample Dup	114	107
MB 880-49447/5-A	Method Blank	92	81
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)
890-4345-1	SS01	93	98
890-4350-A-5-B MS	Matrix Spike	104	97
LCS 880-49383/2-A	Lab Control Sample	111	119
LCSD 880-49383/3-A	Lab Control Sample Dup	107	115
MB 880-49383/1-A	Method Blank	121	139 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49447/5-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49447

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 14:10	03/28/23 15:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/23 14:10	03/28/23 15:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	03/24/23 14:10	03/28/23 15:20	1
1,4-Difluorobenzene (Surr)	81		70 - 130	03/24/23 14:10	03/28/23 15:20	1

Lab Sample ID: LCS 880-49447/1-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1130		mg/Kg		113	70 - 130
Toluene	0.100	0.09973		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1082		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2222		mg/Kg		111	70 - 130
o-Xylene	0.100	0.1057		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-49447/2-A

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1239		mg/Kg		124	70 - 130	9	35
Toluene	0.100	0.1039		mg/Kg		104	70 - 130	4	35
Ethylbenzene	0.100	0.1134		mg/Kg		113	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2319		mg/Kg		116	70 - 130	4	35
o-Xylene	0.100	0.1103		mg/Kg		110	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-4353-A-34-A MS

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1071		mg/Kg		107	70 - 130
Toluene	<0.00200	U	0.100	0.1079		mg/Kg		107	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

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

Lab Sample ID: 890-4353-A-34-A MS

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Ethylbenzene	<0.00200	U	0.100	0.1227		mg/Kg		122	70 - 130	
m-Xylene & p-Xylene	<0.00399	U	0.201	0.2515		mg/Kg		125	70 - 130	
o-Xylene	<0.00200	U	0.100	0.1199		mg/Kg		119	70 - 130	
		MS	MS							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130							
1,4-Difluorobenzene (Surr)	94		70 - 130							

Lab Sample ID: 890-4353-A-34-B MSD

Matrix: Solid

Analysis Batch: 49735

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49447

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits		RPD	Limit
Benzene	<0.00200	U	0.0996	0.1282		mg/Kg		129	70 - 130		18	35
Toluene	<0.00200	U	0.0996	0.1114		mg/Kg		112	70 - 130		3	35
Ethylbenzene	<0.00200	U	0.0996	0.1226		mg/Kg		123	70 - 130		0	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2519		mg/Kg		126	70 - 130		0	35
o-Xylene	<0.00200	U	0.0996	0.1190		mg/Kg		120	70 - 130		1	35
		MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130									
1,4-Difluorobenzene (Surr)	99		70 - 130									

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

Lab Sample ID: MB 880-49383/1-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49383

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 09:41	03/26/23 08:27	1
		MB	MB					
Surrogate	%Recovery	Qualifier	Limits					
1-Chlorooctane	121		70 - 130					
o-Terphenyl	139	S1+	70 - 130					

Lab Sample ID: LCS 880-49383/2-A

Matrix: Solid

Analysis Batch: 49516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	971.5		mg/Kg		97	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	868.0		mg/Kg		87	70 - 130	

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QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

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

Lab Sample ID: LCS 880-49383/2-A
Matrix: Solid
Analysis Batch: 49516

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49383

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: LCSD 880-49383/3-A
Matrix: Solid
Analysis Batch: 49516

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49383

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	893.3		mg/Kg		89	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	752.9		mg/Kg		75	70 - 130	14	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: 890-4350-A-5-B MS
Matrix: Solid
Analysis Batch: 49516

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 49383

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	928.2		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1002		mg/Kg		98	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	97		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49796/1-A
Matrix: Solid
Analysis Batch: 49897

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/29/23 12:48	1

Lab Sample ID: LCS 880-49796/2-A
Matrix: Solid
Analysis Batch: 49897

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-49796/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-4345-1 MS				Client Sample ID: SS01							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	44.0		252	322.3		mg/Kg		110	90 - 110		

Lab Sample ID: 890-4345-1 MSD				Client Sample ID: SS01							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 49897											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	44.0		252	321.9		mg/Kg		110	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

GC VOA

Prep Batch: 49447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-1	SS01	Total/NA	Solid	5035	
MB 880-49447/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49447/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49447/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4353-A-34-A MS	Matrix Spike	Total/NA	Solid	5035	
890-4353-A-34-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-1	SS01	Total/NA	Solid	8021B	49447
MB 880-49447/5-A	Method Blank	Total/NA	Solid	8021B	49447
LCS 880-49447/1-A	Lab Control Sample	Total/NA	Solid	8021B	49447
LCSD 880-49447/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49447
890-4353-A-34-A MS	Matrix Spike	Total/NA	Solid	8021B	49447
890-4353-A-34-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49447

Analysis Batch: 49843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-1	SS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 49383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-1	SS01	Total/NA	Solid	8015NM Prep	
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-1	SS01	Total/NA	Solid	8015B NM	49383
MB 880-49383/1-A	Method Blank	Total/NA	Solid	8015B NM	49383
LCS 880-49383/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49383
LCSD 880-49383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49383
890-4350-A-5-B MS	Matrix Spike	Total/NA	Solid	8015B NM	49383

Analysis Batch: 49626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-1	SS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-1	SS01	Soluble	Solid	DI Leach	
MB 880-49796/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4345-1 MS	SS01	Soluble	Solid	DI Leach	
890-4345-1 MSD	SS01	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

HPLC/IC

Analysis Batch: 49897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4345-1	SS01	Soluble	Solid	300.0	49796
MB 880-49796/1-A	Method Blank	Soluble	Solid	300.0	49796
LCS 880-49796/2-A	Lab Control Sample	Soluble	Solid	300.0	49796
LCSD 880-49796/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49796
890-4345-1 MS	SS01	Soluble	Solid	300.0	49796
890-4345-1 MSD	SS01	Soluble	Solid	300.0	49796

Lab Chronicle

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

Client Sample ID: SS01

Lab Sample ID: 890-4345-1

Date Collected: 03/16/23 14:10

Matrix: Solid

Date Received: 03/17/23 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	49447	03/24/23 14:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49735	03/28/23 22:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49843	03/29/23 12:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			49626	03/27/23 11:32	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49383	03/24/23 09:41	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49516	03/26/23 14:41	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	49796	03/29/23 09:36	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49897	03/29/23 14:10	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

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: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

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

Protocol References:
ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

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

Sample Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4345-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4345-1	SS01	Solid	03/16/23 14:10	03/17/23 09:07	0.25

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Environment Testing
Xerco

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 11 of 11

Project Manager:	Katei Jennings	Bill to: (if different)	Katei 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, dnikanorov@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:		Maverick ECGSAU 1904-001		Turn Around		Pres. Code	
Project Number:		03D2057008		☒ Routine ☐ Rush			
Project Location:		Lea County, NM		Due Date:			
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm			
PO #:							
SAMPLE RECEIPT		Temp Blank:		☒ Yes ☐ No		Wet Ice: ☒ Yes ☐ No	
Samples Received Intact:		☒ Yes ☐ No		Thermometer ID:		TTCM007	
Cooler Custody Seals:		☒ Yes ☐ No		Correction Factor:		-0.3	
Sample Custody Seals:		☒ Yes ☐ No		Temperature Reading:		2.0	
Total Containers:				Corrected Temperature:		1.8	
Parameters							
RIDES (EPA: 300.0)							
015) 8021							
ANALYSIS REQUEST							
890-4345 Chain of Custody 							
Preservative Codes							
None: NO		DI Water: H ₂ O		Cool: Cool		MeOH: Me	
HCL: HC		HNO ₃ : HN		H ₂ SO ₄ : H ₂		NaOH: Na	
H ₃ PO ₄ : HP		NaHSO ₄ : NABIS		Na ₂ S ₂ O ₃ : NaSO ₃		Zn Acetate+NaOH: Zn	
NaOH+Ascorbic Acid: SAPC							

[illegible]

Total	200.7 / 6010	200.8 / 6020:	Circle Method(s) and Metal(s) to be analyzed																										
8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	Zn
TCLP / SPLP 6010: 8RCRA			Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U	Hg: 1631 / 245.1 / 7470 / 7471										

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins 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 \$3 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
PN	Clare Giff	3-17-23 907 ²			
1					
3					
5					

Revised Date: 08/25/2020 Rev 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4345-1

SDG Number: 03D2057008

Login Number: 4345

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: 890-4345-1

SDG Number: 03D2057008

Login Number: 4345

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/20/23 08:25 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/30/2023 2:13:13 PM

JOB DESCRIPTION

Maverick EVGSAU 1904-001
SDG NUMBER 03D2057008

JOB NUMBER

890-4338-1

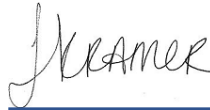
Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
3/30/2023 2:13:13 PM

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

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Laboratory Job ID: 890-4338-1
SDG: 03D2057008

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Definitions/Glossary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

Job ID: 890-4338-1

Laboratory: Eurofins Carlsbad

Narrative	
Job Narrative 890-4338-1	

Receipt

The sample was received on 3/17/2023 9:07 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 1.8°C

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS04 (890-4338-1).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

Client Sample ID: SS04

Lab Sample ID: 890-4338-1

Date Collected: 03/16/23 14:40

Matrix: Solid

Date Received: 03/17/23 09:07

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/24/23 10:32	03/27/23 18:44	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/24/23 10:32	03/27/23 18:44	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/24/23 10:32	03/27/23 18:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/23 10:32	03/27/23 18:44	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/24/23 10:32	03/27/23 18:44	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/23 10:32	03/27/23 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	03/24/23 10:32	03/27/23 18:44	1
1,4-Difluorobenzene (Surr)	103		70 - 130	03/24/23 10:32	03/27/23 18:44	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/28/23 10:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/27/23 11:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 08:47	03/25/23 04:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 08:47	03/25/23 04:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 08:47	03/25/23 04:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130	03/24/23 08:47	03/25/23 04:32	1
o-Terphenyl	83		70 - 130	03/24/23 08:47	03/25/23 04:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77.1		5.00	mg/Kg			03/29/23 17:12	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

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)
880-25959-A-1-D MS	Matrix Spike	108	89
880-25959-A-1-E MSD	Matrix Spike Duplicate	103	92
890-4338-1	SS04	118	103
LCS 880-49395/1-A	Lab Control Sample	112	97
LCSD 880-49395/2-A	Lab Control Sample Dup	104	91
MB 880-49395/5-A	Method Blank	98	80
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)
890-4338-1	SS04	80	83
890-4376-A-1-C MS	Matrix Spike	94	94
890-4376-A-1-D MSD	Matrix Spike Duplicate	111	103
LCS 880-49368/2-A	Lab Control Sample	85	100
LCSD 880-49368/3-A	Lab Control Sample Dup	83	96
MB 880-49368/1-A	Method Blank	101	109
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49395/5-A

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49395

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/23 10:32	03/27/23 11:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/23 10:32	03/27/23 11:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	03/24/23 10:32	03/27/23 11:05	1
1,4-Difluorobenzene (Surr)	80		70 - 130	03/24/23 10:32	03/27/23 11:05	1

Lab Sample ID: LCS 880-49395/1-A

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09176		mg/Kg		92	70 - 130
Toluene	0.100	0.09833		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09729		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2024		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1015		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-49395/2-A

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.08376		mg/Kg		84	70 - 130	9	35
Toluene	0.100	0.09163		mg/Kg		92	70 - 130	7	35
Ethylbenzene	0.100	0.08997		mg/Kg		90	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1879		mg/Kg		94	70 - 130	7	35
o-Xylene	0.100	0.09436		mg/Kg		94	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 880-25959-A-1-D MS

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.08772		mg/Kg		88	70 - 130
Toluene	<0.00199	U	0.0998	0.09353		mg/Kg		94	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

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

Lab Sample ID: 880-25959-A-1-D MS

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.08929		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1887		mg/Kg		95	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09274		mg/Kg		93	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	89		70 - 130

Lab Sample ID: 880-25959-A-1-E MSD

Matrix: Solid

Analysis Batch: 49565

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49395

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09134		mg/Kg		91	70 - 130	4	35
Toluene	<0.00199	U	0.100	0.09599		mg/Kg		96	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.100	0.09204		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1852		mg/Kg		92	70 - 130	2	35
o-Xylene	<0.00199	U	0.100	0.09141		mg/Kg		91	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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

Lab Sample ID: MB 880-49368/1-A

Matrix: Solid

Analysis Batch: 49358

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 49368

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/24/23 08:47	03/24/23 20:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/23 08:47	03/24/23 20:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/23 08:47	03/24/23 20:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	03/24/23 08:47	03/24/23 20:44	1
o-Terphenyl	109		70 - 130	03/24/23 08:47	03/24/23 20:44	1

Lab Sample ID: LCS 880-49368/2-A

Matrix: Solid

Analysis Batch: 49358

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49368

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	852.9		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	963.6		mg/Kg		96	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

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

Lab Sample ID: LCS 880-49368/2-A

Matrix: Solid

Analysis Batch: 49358

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 49368

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-49368/3-A

Matrix: Solid

Analysis Batch: 49358

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 49368

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	808.3		mg/Kg		81	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	895.3		mg/Kg		90	70 - 130	7	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-4376-A-1-C MS

Matrix: Solid

Analysis Batch: 49358

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 49368

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	981.4		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	998	971.8		mg/Kg		97	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-4376-A-1-D MSD

Matrix: Solid

Analysis Batch: 49358

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 49368

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1188		mg/Kg		115	70 - 130	19	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1087		mg/Kg		109	70 - 130	11	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	103		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-49795/1-A
Matrix: Solid
Analysis Batch: 49900

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/29/23 16:00	1

Lab Sample ID: LCS 880-49795/2-A
Matrix: Solid
Analysis Batch: 49900

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	247.1		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-49795/3-A
Matrix: Solid
Analysis Batch: 49900

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.2		mg/Kg		102	90 - 110	3	20

Lab Sample ID: 880-26087-A-1-C MS
Matrix: Solid
Analysis Batch: 49900

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	82.8		253	332.5		mg/Kg		99	90 - 110

Lab Sample ID: 880-26087-A-1-D MSD
Matrix: Solid
Analysis Batch: 49900

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	82.8		253	335.1		mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

GC VOA

Prep Batch: 49395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4338-1	SS04	Total/NA	Solid	5035	
MB 880-49395/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-49395/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-49395/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-25959-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-25959-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 49565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4338-1	SS04	Total/NA	Solid	8021B	49395
MB 880-49395/5-A	Method Blank	Total/NA	Solid	8021B	49395
LCS 880-49395/1-A	Lab Control Sample	Total/NA	Solid	8021B	49395
LCSD 880-49395/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49395
880-25959-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	49395
880-25959-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	49395

Analysis Batch: 49705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4338-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 49358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4338-1	SS04	Total/NA	Solid	8015B NM	49368
MB 880-49368/1-A	Method Blank	Total/NA	Solid	8015B NM	49368
LCS 880-49368/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49368
LCSD 880-49368/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49368
890-4376-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	49368
890-4376-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	49368

Prep Batch: 49368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4338-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-49368/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49368/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49368/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4376-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4376-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4338-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 49795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4338-1	SS04	Soluble	Solid	DI Leach	
MB 880-49795/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-49795/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-49795/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

HPLC/IC (Continued)

Leach Batch: 49795 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26087-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-26087-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 49900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4338-1	SS04	Soluble	Solid	300.0	49795
MB 880-49795/1-A	Method Blank	Soluble	Solid	300.0	49795
LCS 880-49795/2-A	Lab Control Sample	Soluble	Solid	300.0	49795
LCSD 880-49795/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	49795
880-26087-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	49795
880-26087-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	49795

Lab Chronicle

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

Client Sample ID: SS04

Lab Sample ID: 890-4338-1

Date Collected: 03/16/23 14:40

Matrix: Solid

Date Received: 03/17/23 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	49395	03/24/23 10:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49565	03/27/23 18:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			49705	03/28/23 10:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			49616	03/27/23 11:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49368	03/24/23 08:47	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49358	03/25/23 04:32	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	49795	03/29/23 09:33	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	49900	03/29/23 17:12	SMC	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

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: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Maverick EVGSAU 1904-001

Job ID: 890-4338-1
SDG: 03D2057008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4338-1	SS04	Solid	03/16/23 14:40	03/17/23 09:07	0.25'

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



Environment Testing

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

Chain of Custody

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marlenfeld St Suite 400	Address:	601 N Marlenfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com, dnikanorov@ensolum.com

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

Project Name:		Maverick EVGSAU 1904-001		Turn Around		Pres. Code		ANALYSIS REQUEST										Preservative Codes							
Project Number:		03D2057008		☒ Routine ☐ Rush														None NO DI Water: H ₂ O							
Project Location:		Lee County, NM		Due Date:														Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na							
Sampler's Name:		Dmitry Nikanorov		TAT starts the day received by the lab, if received by 4:30pm																					
PO #:																									
SAMPLE RECEIPT				Temp Blank:		☒ Yes ☐ No		Wet Ice:		☒ Yes ☐ No															
Samples Received Intact:				☒ Yes ☐ No		Thermometer ID:				IN-607															
Cooler Custody Seals:				Yes ☐ No ☐ N/A		Correction Factor:				-0.2															
Sample Custody Seals:				Yes ☐ No ☐ N/A		Temperature Reading:				2.0															
Total Containers:						Corrected Temperature:				1.8												Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: S4PC			

[illegible]

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

Notice: Signature of this document 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
		3.17.23 0907			
1			4		
3			6		
5					

Revised Date: 08/25/2020 Rev: 2020

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4338-1

SDG Number: 03D2057008

Login Number: 4338

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4338-1

SDG Number: 03D2057008

Login Number: 4338

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 03/20/23 08:25 AM

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



APPENDIX E

NMOCD Notifications

From: OCDOnline@state.nm.us
To: [Kalei Jennings](#)
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 170834
Date: Tuesday, January 24, 2023 11:02:23 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Kalei Jennings for Maverick Permian LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2210950771, with the following conditions:

- **Remediation Plan Approved.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Jennifer Nobui
Environmental Specialist-Advanced
505-470-3407
Jennifer.Nobui@emnrd.nm.gov

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

From: [Hamlet, Robert, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Austin.Tramell@mavresources.com](#); [Caleb Cooley](#); [Jason Thomas](#); [Thomas Haigood](#); [Bratcher, Mike, EMNRD](#); [Nobui, Jennifer, EMNRD](#); [Harimon, Jocelyn, EMNRD](#)
Subject: (Extension Approval) Maverick - East Vacuum Unit 1904-001 (Incident Number NAPP2210950771)
Date: Thursday, June 30, 2022 9:27:30 AM
Attachments: [image005.jpg](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

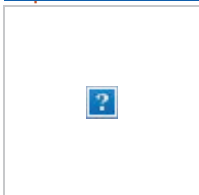
[**EXTERNAL EMAIL**]

RE: Incident #**NAPP2210950771**

Kalei,

Your request for an extension to **October 3rd, 2022** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, June 29, 2022 10:19 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>
Cc: Austin.Tramell@mavresources.com; Caleb Cooley <Caleb.Cooley@mavresources.com>; Jason Thomas <jason.thomas@mavresources.com>; Thomas Haigood <Thomas.Haigood@mavresources.com>
Subject: [EXTERNAL] Maverick- Extension Request- East Vacuum Unit 1904-001 (Incident Number NAPP2210950771)

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

To Whom It May Concern,

Maverick Natural Resources (Maverick) is requesting an extension for the current deadline of July 5, 2022 for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the East Vacuum Unit 1904-001 (Incident Number NAPP2210950771). The release was discovered on April 6, 2022 and additional site assessment and remediation activities are warranted. Maverick recently acquired the site from the previous operator and is requesting a 90-day extension to October 3, 2022, to allow time to transfer files, review site information, and prepare a remediation work plan or closure report.

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC



From: [Nobui, Jennifer, EMNRD](#)
To: [Kalei Jennings](#)
Cc: [Bratcher, Mike, EMNRD](#); [Hamlet, Robert, EMNRD](#); [Harimon, Jocelyn, EMNRD](#)
Subject: FW: [EXTERNAL] Maverick- Sampling Notification (Week of 09/05/22-09/09/22)
Date: Tuesday, September 6, 2022 11:15:09 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

[**EXTERNAL EMAIL**]

Kalei

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Tuesday, September 6, 2022 9:06 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Subject: Fw: [EXTERNAL] Maverick- Sampling Notification (Week of 09/05/22-09/09/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Friday, September 2, 2022 1:12 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 09/05/22-09/09/22)

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

All,

Maverick Natural Resources plans to complete final sampling activities at the following sites the week of September 5, 2022.

Monday:

- Holiday

Tuesday:

- Britt B / NAPP2221672740

- East Vacuum Unit 1904-001 / NAPP2210950771

Wednesday:

- East Vacuum Unit 1904-001 / NAPP2210950771

Thursday:

- East Vacuum Unit 1904-001 / NAPP2210950771

Friday:

Thank you,



Kalei Jennings

Senior Scientist

817-683-2503

Ensolum, LLC





APPENDIX F

Final C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2210950771
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	ConocoPhillips	OGRID	217817
Contact Name	Rahul Kaushik	Contact Telephone	(432) 238-3781
Contact email	Rahul.Kaushik@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2210950771
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.81388 Longitude -103.49916
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	East Vacuum Unit 1904-001	Site Type	Well
Date Release Discovered	April 6, 2022	API# (if applicable)	30-025-02826

Unit Letter	Section	Township	Range	County
N	19	17S	35E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls)	0.07	Volume Recovered (bbls)	0
☒ Produced Water	Volume Released (bbls)	7.13	Volume Recovered (bbls)	0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No		
☐ Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
☐ Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
☐ Other (describe)	Volume/Weight Released (provide units)		Volume/Weight Recovered (provide units)	

Cause of Release

The release was caused by a stuffing box leak on the well head resulting in fluid being released on pad and a minor area off pad.

Incident ID	NAPP2210950771
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.	
☒ The impacted area has been secured to protect human health and the environment.	
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name Brittany N. Esparza	Title: Environmental Technician
Signature: 	Date: 4/19/2022
email: Brittany.Esparza@ConocoPhillips.com	Telephone: (432) 221-0398
<u>OCD Only</u>	
Received by: Jocelyn Harimon	Date: 04/19/2022

L48 Spill Volume Estimate Form

NAPP2210950771

Page 3 of 4

Facility Name & Number: 1904-001

Asset Area: SENM (Buckeye)

Release Discovery Date & Time: 4/6/222 09:15

Release Type: Oil Mixture

Provide any known details about the event: During normal operations MSO found stuffing box leak that resulted in oil mixture spill. Immediate action was to tighten stuffing box to stop leak.

Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?

On Pad - 10.5%; Off Pad - 15.12% soil spilled-fluid saturation factor

Has it rained at least a half inch in the last 24 hours?

Yes, On Pad - 8%; Off Pad - 13.57% soil spilled-fluid saturation factor; if No, use factors above.

Convert Irregular shape into 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	33.0	8.0	2.00	10.50%	7.832	0.822	1.00%	0.008	0.814
Rectangle B	100.0	10.0	2.00	10.50%	29.667	3.115	1.00%	0.031	3.084
Rectangle C	45.0	20.0	2.00	10.50%	26.700	2.804	1.00%	0.028	2.775
Rectangle D	40.0	30.0	0.25	10.50%	4.450	0.467	1.00%	0.005	0.463
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
Rectangle J					0.000	0.000		0.000	0.000
Total Volume Release:						7.208		0.072	7.136

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 99892

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 99892
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	4/19/2022

Incident ID	NAPP2210950771
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51-100</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: <i>Each of the following items must be included in the report.</i>
☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

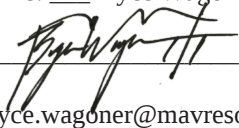
Page 4

Incident ID	NAPP2210950771
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ___Bryce Wagoner_____

Title: ___Permian HSE Specialist_____

Signature: _____

Date: ___09/19/2023_____

email: ___bryce.wagoner@mavresources.com_____

Telephone: ___928-241-1862_____

OCD Only

Received by: _____

Date: _____

Incident ID	NAPP2210950771
District RP	
Facility ID	
Application ID	

Closure

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

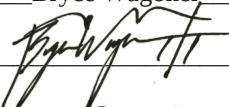
Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Bryce Wagoner

Title: Permian HSE Specialist

Signature: 

Date: 09/19/2023

email: bryce.wagoner@mavresources.com

Telephone: 928-241-1862

OCD Only

Received by: _____

Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____

Title: _____

District I
1625 N. French Dr., Hobbs, NM 88240
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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 267205

CONDITIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 267205
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	2/2/2024