ENSOLUM

February 16, 2024

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
Elvis Injection Line
Incident Number NAPP2213642290
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* (Work Plan) submitted to the New Mexico Oil Conservation Division (NMOCD) on December 28, 2022, and approved by NMOCD on January 24, 2023. This *Closure Request* documents assessment, excavation, and soil sampling activities performed at the Elvis Injection Line (Site) to address impacts to soil resulting from a release of produced water at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, Maverick is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2213642290.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit F, Section 20, Township 17 South, Range 32 East, in Lea County, New Mexico (32.820368°N, 103.789382°W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On May 4, 2022, corrosion from an injection line resulted in the release of approximately 30.12 barrels (bbls) of produced water into the surrounding pasture. Approximately 1 bbl of released fluids was recovered. The previous operator, ConocoPhillips Company (COP), immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on May 4, 2022, and submitted a Release Notification Form C-141 (Form C-141) on May 16, 2022. The release was assigned Incident Number NAPP2213642290.

The previous operator, COP, sold the asset to Maverick on June 1, 2022. Field activities at the Site were postponed until the sale of the Site was complete.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 106 feet below ground surface (bgs) based on the nearest groundwater well data. The closest groundwater well/soil boring with depth to groundwater data is soil boring DTW 01, located approximately 0.26 miles south of the Site. The soil boring was drilled during August 2023 to a depth of 106 feet bgs. A field geologist logged and described soil continuously. The borehole lithologic log is included in Appendix A. No groundwater was encountered in the borehole to a depth of 106 feet bgs. The borehole was left open for over 72 hours to allow for potential infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater is greater than 106 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 closest continuously flowing or significant watercourse is greater than 300 feet from the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

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

SUMMARY OF DELINEATION ACTIVITIES

Potholes PH01 through PH05 were advanced within the release extent to depths ranging from 4 feet to 14 feet bgs. Discrete delineation soil samples were collected from the potholes at depths ranging from 1-foot to 14 feet bgs. The release extent and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Appendix B. Pothole PH03 was re-advanced on January 8, 2024, at the location of the original October 19, 2022, PH03 pothole location to complete additional delineation activities. No chloride impacted soil was identified at the location of pothole PH03 during January 2024.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH05, were compliant with the Site Closure Criteria and provided vertical delineation to below the most stringent Table 1 Closure Criteria. However, laboratory analytical results and/or field screening results indicated chloride concentrations exceeded the reclamation requirement in the top four feet of the pasture release area. Laboratory analytical results are summarized on the attached Table 1.

Based on the delineation activities, a *Work Plan* was submitted to the NMOCD on December 28, 2022, proposing excavation of chloride impacted soil in the top four feet of the pasture release extent and installation of a soil boring to confirm depth to water within 0.5 miles of the Site. The NMOCD approved the *Work Plan* with no conditions on January 24, 2023. Additional details regarding the delineation activities can be referenced in the December 28, 2022, *Work Plan.*

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

Between December 7, 2023, and January 8, 2024, Ensolum personnel were at the Site to oversee excavation of chloride impacted soil, as outlined in the approved *Work Plan*. To direct excavation activities, soil was field screened for chloride using Hach® chloride QuanTab® test strips. Excavation activities were performed using hand shovels, hydrovac, backhoe, loader, and transport vehicles. The excavation was completed to a depth of 4 feet bgs.

Following removal of impacted soil, 5-point composite samples were collected every 200 square feet from the sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW16 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 4 feet bgs. Based on the approved *Work Plan* and delineation soil sample analytical results, no floor samples were required, and sidewall samples required analysis of chloride only. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS and are presented on Figure 3. Photographic documentation was completed during the excavation activities. A photographic log is included as Appendix C.

Assessment soil samples SS01 through SS25 were collected within and around the excavation and/or release extent to confirm the extent of the surface release. The assessment soil samples were collected at depths ranging from 0.5 feet to 1-foot bgs. The assessment soil samples sample locations were mapped utilizing a handheld GPS and are presented on Figure 2 and Figure 3.

The excavation and assessment soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Cardinal Laboratories in Hobbs, New Mexico, for analysis of chloride following Standard Method SM 4500.

The excavation measured approximately 6,000 square feet in areal extent. A total of approximately 1,500 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Disposal Facility located in Hobbs, New Mexico.

Laboratory analytical results for excavation sidewall samples SW01 through SW16 indicated chloride concentrations were compliant with the Site Closure Criteria and reclamation requirements for the top four feet of the pasture area. Laboratory analytical results for assessment soil samples SS01 through SS25 indicated chloride concentrations were compliant with the Site Closure Criteria and reclamation requirements, where applicable. Laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix D.

RECLAMATION ACTIVITIES

Upon completion of excavation activities and receipt of final soil sample analytical results, Maverick proceeded with reclamation of the disturbed pasture area. The excavation was backfilled with locally procured soil and the Site was recontoured to match pre-existing conditions. The disturbed pasture area

was seeded with a BLM approved seed mixture. Photographs of the reclaimed area are included in Appendix C.

Laboratory analytical results for assessment soil samples SS02 and SS04, collected on the active pad at a depth of 0.5 feet bgs, indicated chloride concentrations exceeded the reclamation requirement at concentrations of 880 mg/kg and 1,100 mg/kg, respectively. Subsequent soil samples collected at 1-foot bgs from the SS02 and SS04 sample locations provided vertical delineation to below the reclamation requirement. The soil exceeding reclamation requirements in the top four of the active pad will be addressed during final abandonment of the injection facility.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the May 4, 2022, release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated chloride concentrations were compliant with the Site Closure Criteria and reclamation requirements. Additionally, the release was laterally and vertically delineated to below the most stringent Table I Closure Criteria. Based on excavation and soil sampling activities completed as outlined in the approved *Work Plan*, no further remediation is required.

Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. Depth to groundwater was confirmed to be greater than 100 feet bgs within 0.5 miles of the Site and no sensitive receptors were identified near the release extent. Maverick believes the remedial actions completed are protective of human health, the environment, and groundwater and respectfully requests closure for Incident NAPP2213642290.

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

Sincerely,
Ensolum, LLC

Ronni Hayes
Staff Scientist

Aimee Cole
Senior Managing Scientist

cc: Bryce Wagoner, Maverick Natural Resources, LLC
Bureau of Land Management

Appendices:

Figure 1	Site Location Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records

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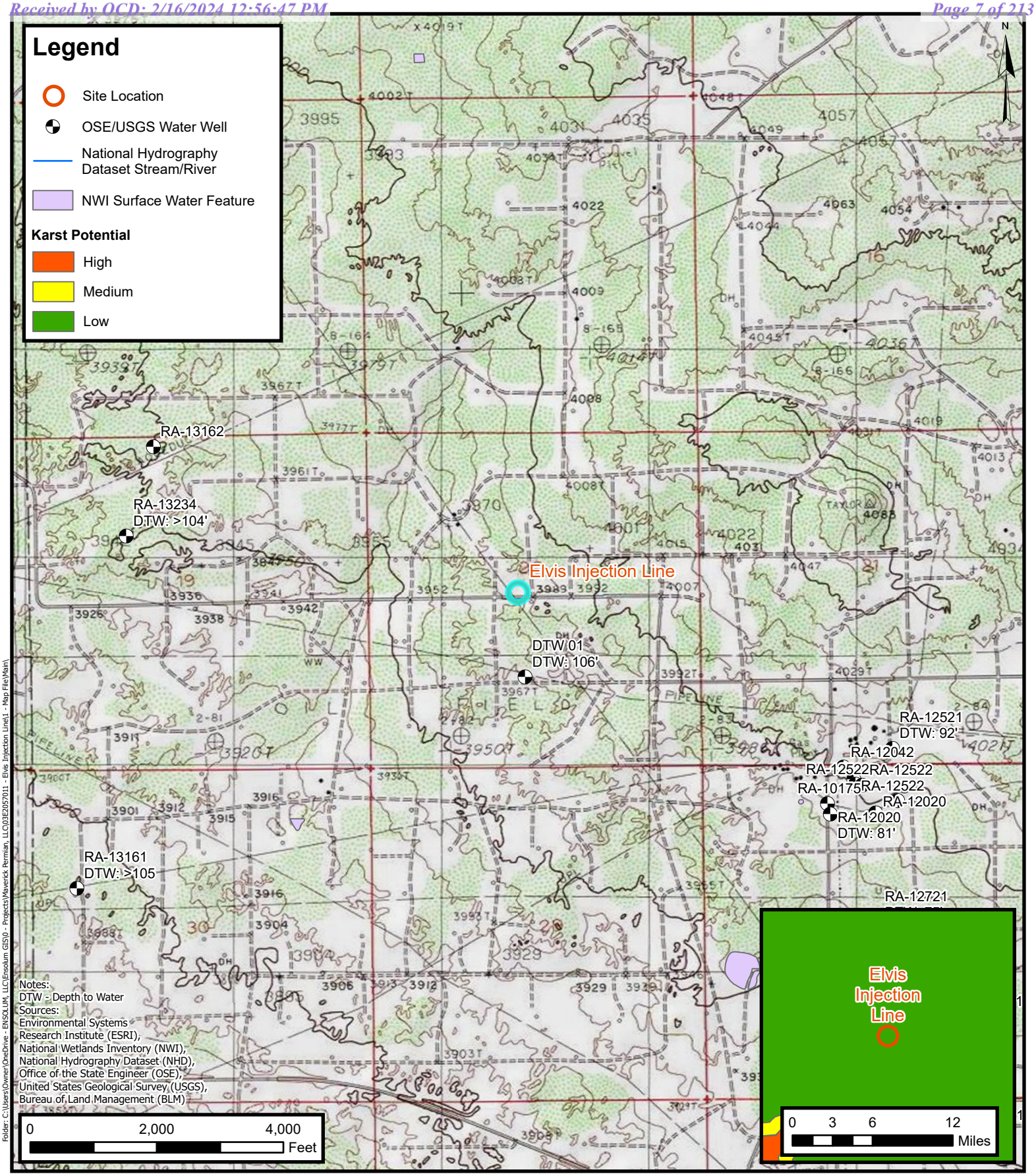
FIGURES



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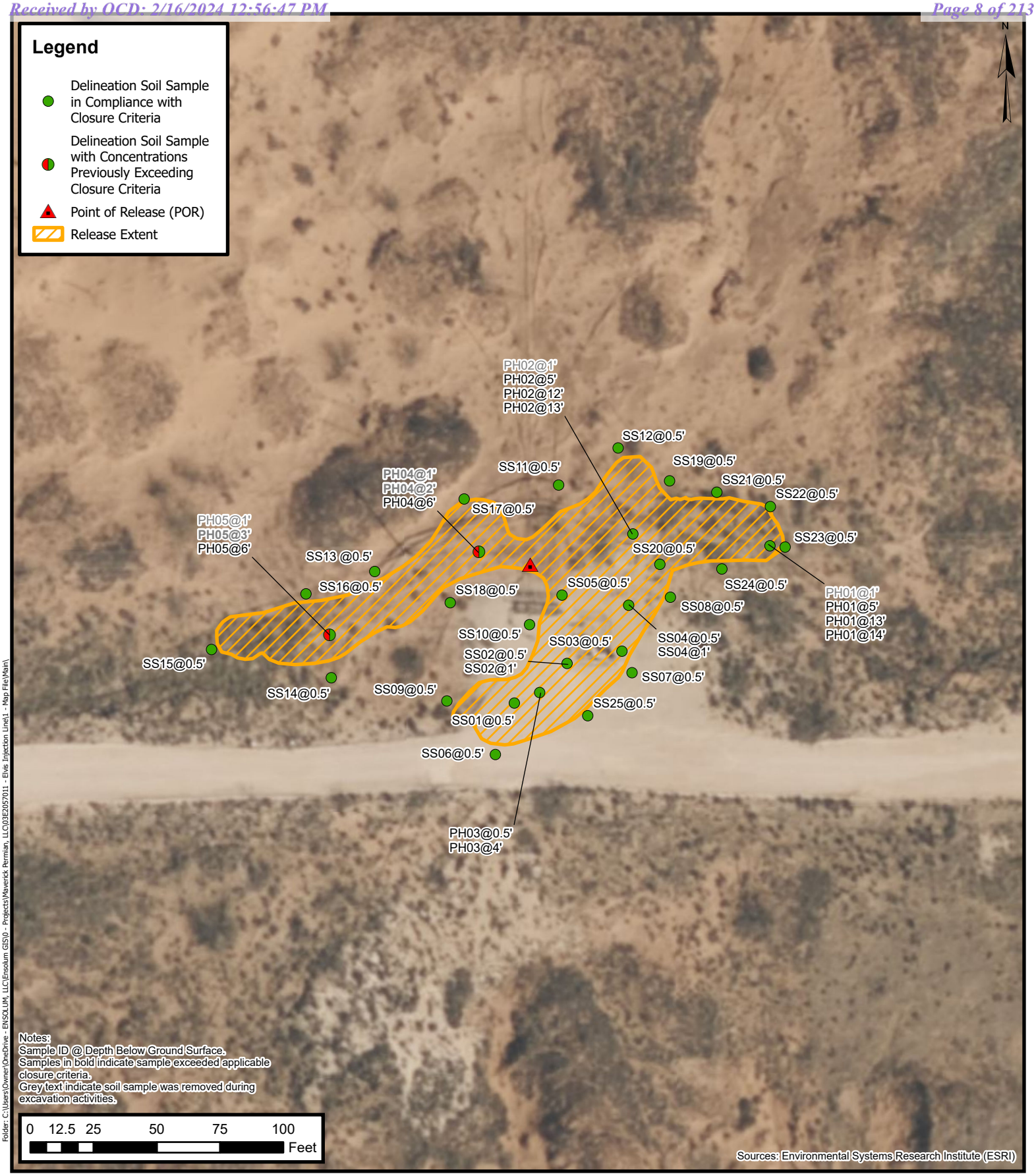
Site Receptor Map

Maverick Permian, LLC
Elvis Injection Line
Incident Number: NAPP2213642290
Unit F Sec 20 T17S R32E
Lea County, New Mexico

FIGURE 1



Folder: C:\Users\Owner\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\Maverick Permian, LLC\03E2057011 - Elvis Injection Line\1 - Map File\Main\

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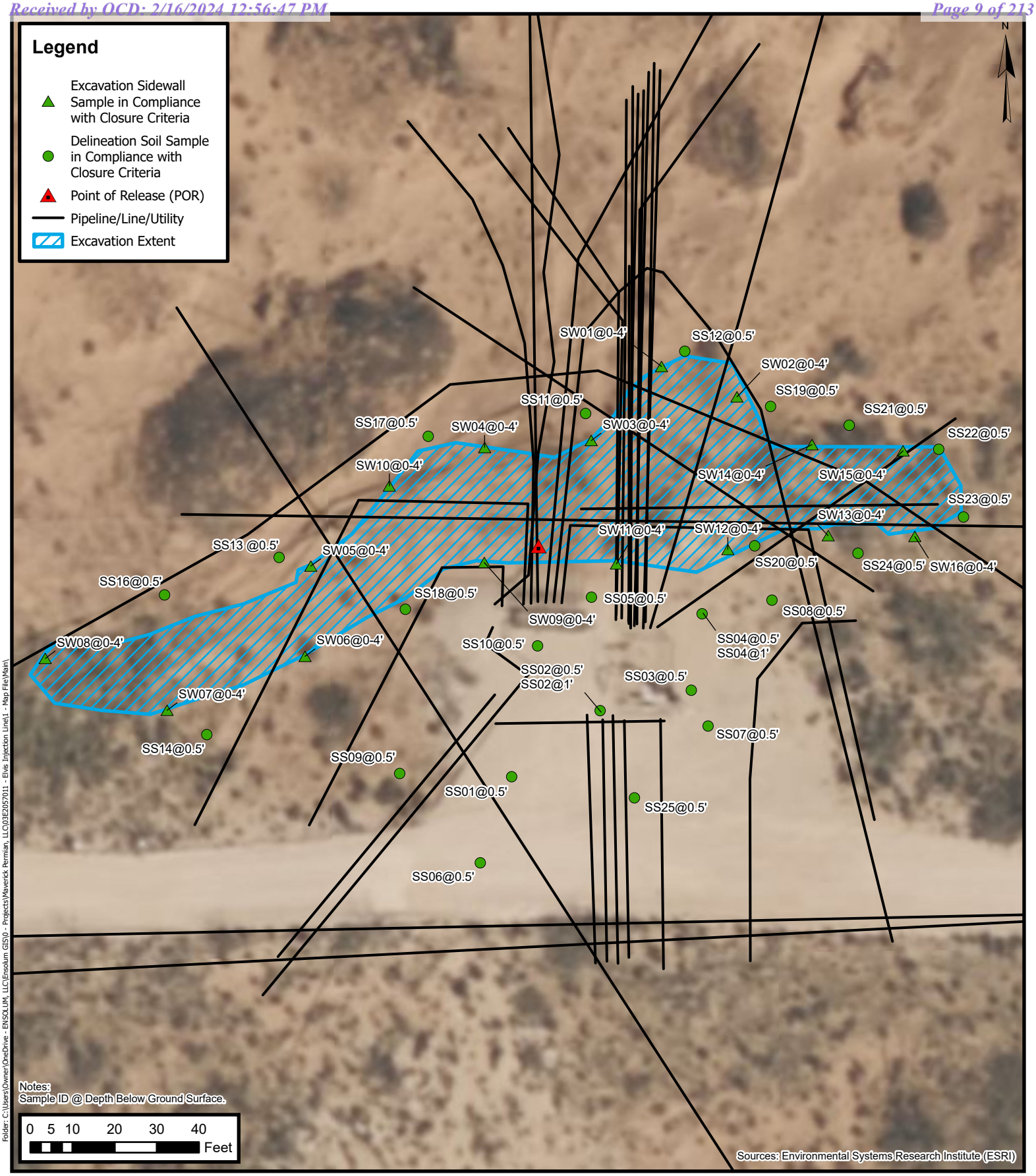
Delineation Soil Sample Locations

Maverick Permian, LLC
Elvis Injection Line
Incident Number: NAPP2213642290
Unit F Sec 20 T17S R32E
Lea County, New Mexico

FIGURE 2



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Excavation Soil Sample Locations

Maverick Permian, LLC
Elvis Injection Line
Incident Number: NAPP2213642290
Unit F Sec 20 T17S R32E
Lea County, New Mexico

FIGURE 3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Elvis Injection Line
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	Sample Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Soil Samples										
PH01*	10/19/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	242
PH01	10/19/2022	5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	6,410
PH01	10/19/2022	13	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	787
PH01	01/08/2024	14	NA	NA	NA	NA	NA	NA	NA	176
PH02*	10/19/2022	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	165
PH02	10/19/2022	5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	8,760
PH02	10/19/2022	12	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	1,120
PH02	01/05/2024	13	NA	NA	NA	NA	NA	NA	NA	48.0
PH03	01/08/2024	0.5	NA	NA	NA	NA	NA	NA	NA	576
PH03	01/08/2024	4	NA	NA	NA	NA	NA	NA	NA	304
PH04*	10/19/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	**2,020**
PH04*	10/19/2022	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	**1,560**
PH04	10/19/2022	6	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	162
PH05*	10/19/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	403
PH05*	10/19/2022	3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	**4,530**
PH05	10/19/2022	6	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	431
Excavation Sidewall Soil Samples										
SW01*	12/7/2023	0-4	NA	NA	NA	NA	NA	NA	NA	48.0
SW02*	12/7/2023	0-4	NA	NA	NA	NA	NA	NA	NA	32.0
SW03*	12/12/2023	0-4	NA	NA	NA	NA	NA	NA	NA	16.0
SW04*	12/12/2023	0-4	NA	NA	NA	NA	NA	NA	NA	160
SW05*	12/14/2023	0-4	NA	NA	NA	NA	NA	NA	NA	<16.0
SW06*	12/14/2023	0-4	NA	NA	NA	NA	NA	NA	NA	144
SW07*	12/15/2023	0-4	NA	NA	NA	NA	NA	NA	NA	272

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Elvis Injection Line
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	Sample Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
SW08*	12/18/2023	0-4	NA	NA	NA	NA	NA	NA	NA	32.0
SW09*	12/20/2023	0-4	NA	NA	NA	NA	NA	NA	NA	32.0
SW10*	12/22/2023	0-4	NA	NA	NA	NA	NA	NA	NA	32.0
SW11*	1/4/2024	0-4	NA	NA	NA	NA	NA	NA	NA	48.0
SW12*	1/5/2024	0-4	NA	NA	NA	NA	NA	NA	NA	352
SW13*	1/5/2024	0-4	NA	NA	NA	NA	NA	NA	NA	144
SW14*	1/5/2024	0-4	NA	NA	NA	NA	NA	NA	NA	272
SW15*	1/8/2024	0-4	NA	NA	NA	NA	NA	NA	NA	64.0
SW16*	1/8/2024	0-4	NA	NA	NA	NA	NA	NA	NA	176
Assessment Soil Samples										
SS01	12/12/2023	0.5	NA	NA	NA	NA	NA	NA	NA	48.0
SS02	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	880
SS02	1/4/2023	1	NA	NA	NA	NA	NA	NA	NA	240
SS03	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	144
SS04	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	1,100
SS04	1/4/2024	1	NA	NA	NA	NA	NA	NA	NA	96
SS05	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	128
SS06	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	32.0
SS07	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	176
SS08	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	96.0
SS09*	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	32.0
SS10	12/13/2023	0.5	NA	NA	NA	NA	NA	NA	NA	48.0
SS11*	12/18/2023	0.5	NA	NA	NA	NA	NA	NA	NA	16.0
SS12*	12/18/2023	0.5	NA	NA	NA	NA	NA	NA	NA	16.0
SS13*	12/18/2023	0.5	NA	NA	NA	NA	NA	NA	NA	64.0

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Elvis Injection Line
Maverick Permian, LLC
Lea County, New Mexico

Sample Designation	Sample Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
SS14*	12/18/2023	0.5	NA	NA	NA	NA	NA	NA	NA	16.0
SS15*	12/18/2023	0.5	NA	NA	NA	NA	NA	NA	NA	16.0
SS16*	12/21/2023	0.5	NA	NA	NA	NA	NA	NA	NA	32.0
SS17*	12/21/2023	0.5	NA	NA	NA	NA	NA	NA	NA	16.0
SS18*	12/21/2023	0.5	NA	NA	NA	NA	NA	NA	NA	16.0
SS19*	1/4/2024	0.5	NA	NA	NA	NA	NA	NA	NA	32.0
SS20*	1/4/2024	0.5	NA	NA	NA	NA	NA	NA	NA	48.0
SS21*	1/4/2024	0.5	NA	NA	NA	NA	NA	NA	NA	<16.0
SS22*	1/4/2024	0.5	NA	NA	NA	NA	NA	NA	NA	<16.0
SS23*	1/4/2024	0.5	NA	NA	NA	NA	NA	NA	NA	32.0
SS24*	1/4/2024	0.5	NA	NA	NA	NA	NA	NA	NA	64.0
SS25	1/8/2024	0.5	NA	NA	NA	NA	NA	NA	NA	48.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

NA: Not Analyzed

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Grey text represents samples that have been excavated

** indicates sample was collected in area to be reclaimed after remediation is complete; reclamation requirement in the top 4 feet is 600 mg/kg for chloride and 100 mg/kg for TPH.*

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

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APPENDIX A

Referenced Well Records

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	Sample Name: DTW 01	Date: 08/28/2023
	Site Name: MCA 266	
	Incident Number: NAPP2213642290	
	Job Number: 03D2057011	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Julianna Falcomata	Method: Hollow Stem
	Hole Diameter: 5"	Total Depth: 106'

Comments: Soil boring was advanced to a total depth of 106' bgs. No water was observed within the soil boring after at least 72 hours. On 09/08/2023 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	SP-SM	(10') SAND: fine grained silty sand, poorly graded, tan to medium brown, non plastic, non cohesive, no odor.
Dry	-	-	N	-	-	20	SP-SM	(20') SAND: fine grained silty sand, trace amounts small gravel, poorly graded, tan to reddish brown, non plastic, non cohesive, no odor.
Dry	-	-	N	-	-	30	SP-SM	(30') SAND: fine grained silty sand, moderate amounts small to medium gravel, poorly graded, reddish brown, non plastic, non cohesive, no
Dry	-	-	N	-	-	40	SP-SM	(40') SAND: SAA with trace amounts of CHT like material
Dry	-	-	N	-	-	50	SP-SM	(50') SAND: fine grained silty sand, trace amounts small gravel, poorly graded, reddish brown, non plastic, non cohesive, no odor.
Dry	-	-	N	-	-	60	SP-SM	(60') SAND: fine grained silty sand, trace amounts small gravel, poorly graded, medium brown, non plastic, non cohesive, no odor.
Dry	-	-	N	-	-	70	SP-SM	(70') SAND: fine grained silty sand, trace amounts small gravel, poorly graded, medium brown to dark grey, non plastic, non cohesive, no odor.
Dry	-	-	N	-	-	80	GP-GM	(80') GRAVEL: medium grained, trace amount silty sand, poorly graded, dark grey to light grey, non plastic, non cohesive, no odor.
Dry	-	-	N	-	-	90	GP-GM	(90') GRAVEL: medium grained, trace amount silty sand, poorly graded, light grey to medium brown, non plastic, non cohesive, no odor.
Dry	-	-	N	-	-	100	SP-SM	(100') SAND: fine grained, trace amount small to medium gravel, poorly graded, medium brown, non plastic, non cohesive, no odor.
Dry	-	-	N	-	-	106	SP-SM	(106') SAND: fine grained, trace amount small to medium gravel, poorly graded, dark brown, non plastic, non cohesive, no odor.

Total Depth @ 106 feet bgs

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2013 OCT -7 P 12: 04

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): MW-21 POD1	OSE FILE NUMBER(S): RA-12020
WELL OWNER NAME(S): Phillips 66 Company	PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS: 420 S. Keller (1708-02 Phillips Bldg.)	CITY: Bartlesville STATE: OK ZIP: 74004

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	48	38.1	N
LONGITUDE	103	46	24.4	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE: Maljamar Rd (cr 126) Gas Plant

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
9/24/2013	9/25/2013	120.0		81.5

COMPLETED WELL IS: ( ) ARTESIAN ( ) DRY HOLE (•) SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): 81.5

DRILLING FLUID: ( ) AIR ( ) MUD ADDITIVES – SPECIFY:

DRILLING METHOD: (•) ROTARY ( ) HAMMER ( ) CABLE TOOL ( ) OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0.0	75.0	6.0	Sch. 40 PVC Riser	4.0 TPI	2.0	1/4"	
75.0	110.0	6.0	Sch. 40 PVC Screen	4.0 TPI	2.0	1/4"	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
120.0	110.0	6.0	Bentonite grout	3 sacks	Hand Mix
110.0	71.0	6.0	8/16 Sand	14 sacks	Hand Mix
71.0	19.0	6.0	Bentonite Pellets	19 sacks	Hand Mix
19.0	0.0	6.0	Cement	3.7943	Hand Mix

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	RA-12020	POD NUMBER		TRN NUMBER	534328
LOCATION	EXPL (mon. well)	17S.32E.28.12.2			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0.0	4.0	4.0	Reddish brown sand	○ Y ◉ N	
4.0	8.0	4.0	Reddish sandy clay	○ Y ◉ N	
8.0	11.0	3.0	Caliche	○ Y ◉ N	
11.0	20.0	9.0	Reddish sand/sandstone	○ Y ◉ N	
20.0	28.0	8.0	Light brown sand w/gravel mixed	○ Y ◉ N	
28.0	34.0	6.0	Brown sand	○ Y ◉ N	
34.0	42.0	8.0	Reddish brown sand/sandstone	○ Y ◉ N	
42.0	53.0	11.0	Dark brown sandstone	○ Y ◉ N	
53.0	58.0	5.0	Grayish brown sandstone	○ Y ◉ N	
58.0	70.0	12.0	Yellowish brown sandstone	○ Y ◉ N	
70.0	111.0	41.0	Layers of brown, grennish, and reddish sand/sandstone	◉ Y ○ N	
111.0	120.0	9.0	Dark reddish brown silty clayey shale	◉ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

William B. Atkins

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

SIGNATURE OF DRILLER / PRINT SIGNEE NAME

10-1-13
DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: PH01	Date: 1/8/24
	Site Name: Elvis Injection Line	
	Incident Number: NAPP2213642290	
	Job Number: 03D2057011	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Ronni Hayes	Method: Backhoe
Coordinates: 32.8204559, -103.7890876	Hole Diameter: 3'	Total Depth: 14'

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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	207	0.0	N	PH01	1	1	SPSM	SAND, reddish brown, medium to fine grain, poorly graded, no staining, no odor.
D	1,646	0.2	N			2	SPSM	SAA
D	1,646	0.4	N			3	SPSM	SAA
D	1,316	0.5	N			4	SPSM	SAA
D	1,290	0.2	N	PH01A	5	5	SPSM	SAA
D	3,589	0.5	N			6	SPSM	SAA
D			N			7	SPSM	SAA
D			N			8	SPSM	SAA
D	10,046	0.2	N			9	SPSM	SAA
D			N			10	SPSM	SAA
D			N			11	SPSM	SAA, more clay
D	526	0.1	N			12	SPSC	SAA, some plant matter
D	526	0.1	N	PH01B	13	13	SPSC	SAA, more clay, no plant matter
D	201.6		N	PH01	14	14	SPSC	SAA

TD @ 14 FEET BGS

ENSOLUM

	Sample Name: PH02	Date: 1/5/24
	Site Name: Elvis Injection Line	
	Incident Number: NAPP2213642290	
	Job Number: 03D2057011	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Ronni Hayes	Method: Hand Auger
Coordinates: 32.8204706, -103.7892647	Hole Diameter: 4"	Total Depth: 13' bgs

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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	207	0.2	N	PH02	1	1	SPSM	SAND, reddish brown, medium to fine grain, poorly graded, no staining, no odor.
D	280	0.2	N			2	SPSM	SAA
D	1,036	0.4	N			3	SPSM	SAA
D	1,316	0.4	N			4	SPSM	SAA
D	9,290	0.5	N	PH02A	5	5	SPSM	SAA
D	7,341	0.5	N			6	SPSM	SAA, more clay
D	4,860	0.9	N			7	SPSM	SAA
D	7,341	0.3	N			8	CCHE	CALICHE
D			N			9	CCHE	SAA
D			N			10	CCHE	SAA
D	1,215	0.1	N			11	CCHE	SAA
D	1,215	0.1	N	PH02B	12	12	CCHE	SAA
D	<198.6		N	PH02	13	13	CCHE	SAA
								TD at 13 ft bgs

ENSOLUM

Sample Name: PH03	1/8/2024	
Site Name: Elvis Injection Line		
Incident Number: NAPP2213642290		
Job Number: 03D2057011		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: Mini-ex
Coordinates: 32.8202996, -103.7893864	Hole Diameter: 3'	Total Depth: 4' bgs

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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
Dry	649.6	-	N	PH03	0.5	0.5	CCHE	CALICHE, well pad poorly graded, no staining, no odor.
Dry	649.6	-	N			1	SAA	SAA
Dry	319	-	N			2	SPSM	SAND, reddish brown, medium to fine grain, poorly graded, no staining, no odor.
Dry	168	-	N			3	SAA	SAA
Dry	364	-	N	PH03	4	4	SAA	SAA
								TD at 4 ft bgs

ENSOLUM

	Sample Name: PH04	Date: 10/19/2022
	Site Name: Elvis Injection Line	
	Incident Number: NAPP2213642290	
	Job Number: 03D2057011	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS/PV	Method: Hand Auger
Coordinates: 32.8204537, -103.7894618	Hole Diameter: 4"	Total Depth: 10'

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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	2,329	0.3	N	PH04	1	1	SPSM	SAND, reddish brown, medium to fine grain, poorly graded, no staining, no odor.
D	1,764	0.3	N	PH04A	2	2	SPSM	SAA
D	789	0.4	N			3	SPSM	SAA
D	1,892	0.2	N			4	SPSM	SAA
D			N			5	SPSM	SAA
D	<168	0.3	N	PH04B	6	6	SPSM	SAA
D			N			7	SPSM	SAA
D	<168	0.5	N			8	CCHE	CALICHE with sand.
D			N			9	CCHE	SAA
D	<168	0.1	N			10	CCHE	SAA

TD @ 10 FEET BGS

ENSOLUM

	Sample Name: PH05	Date: 10/19/2022
	Site Name: Elvis Injection Line	
	Incident Number: NAPP2213642290	
	Job Number: 03D2057011	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS/PV	Method: Hand Auger
Coordinates: 32.8203646, -103.7896556	Hole Diameter: 4"	Total Depth: 10'

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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	414	0.2	N	PH05	1	1	SPSM	SAND, reddish brown, medium to fine grain, poorly graded, no staining, no odor.
D	280	0.3	N			2	SPSM	SAA
D	5,756	0.3	N	PH05A	3	3	SPSM	SAA
D	929	0.3	N			4	SPSM	SAA
D			N			5	SPSM	SAA
D	526	0.3	N	PH05B	6	6	SPSM	SAA
D			N			7	SPSM	SAA
D	856	0.3	N			8	SPSM	SAA
D			N			9	SPSM	SAA
D	364	0.6	N	PH05C	10	10	SPSM	SAA

TD @ 10 FEET BGS

ENSOLUM

	Sample Name: SS02	Date: 1/4/24
	Site Name: Elvis Injection Line	
	Incident Number: NAPP2213642290	
	Job Number: 03D2057011	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: Hand Auger
Coordinates: 32.8202780, -103.7893770	Hole Diameter: 4"	Total Depth: 1'

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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	1,108		N	SS02	0.5	0.5	CCHE	CALICHE, well pad poorly graded, no staining, no odor.
D	241		N	SS02	1	1	SAA	SAA
								TD at 1 ft bgs

ENSOLUM

	Sample Name: SS04	Date: 1/4/24
	Site Name: Elvis Injection Line	
	Incident Number: NAPP2213642290	
	Job Number: 03D2057011	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: RH	Method: Hand Auger
Coordinates: 32.8204070, -103.7892409	Hole Diameter: 4"	Total Depth: 1'

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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	1,204		N	SS04	0.5	0.5	CCHE	CALICHE, well pad poorly graded, no staining, no odor.
D	<198.6		N	SS04	1	1	SAA	SAA
								TD at 1 ft bgs

ENSOLUM

APPENDIX C

Photographic Log

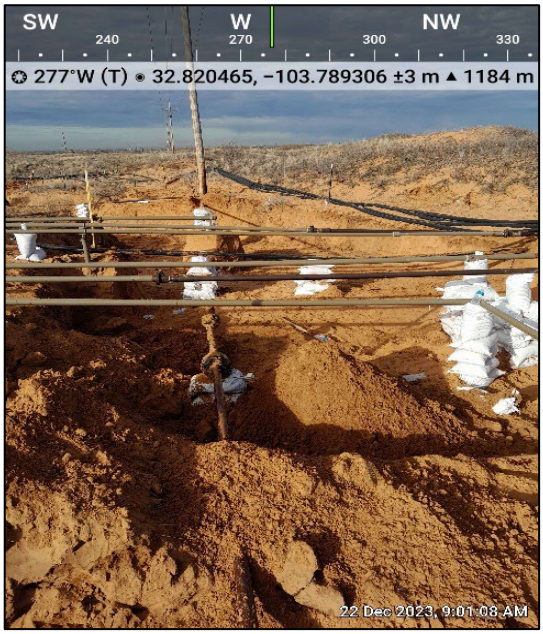
ENSOLUM

Photographic Log
Maverick Permian, LLC
Elvis Injection Line
Incident Number NAPP2213642290

Photograph: 1 Date: 5/5/2022
Description: Soil staining in release footprint
View: Northwest

Photograph: 2 Date: 10/19/2022
Description: Delineation Activities
View: East

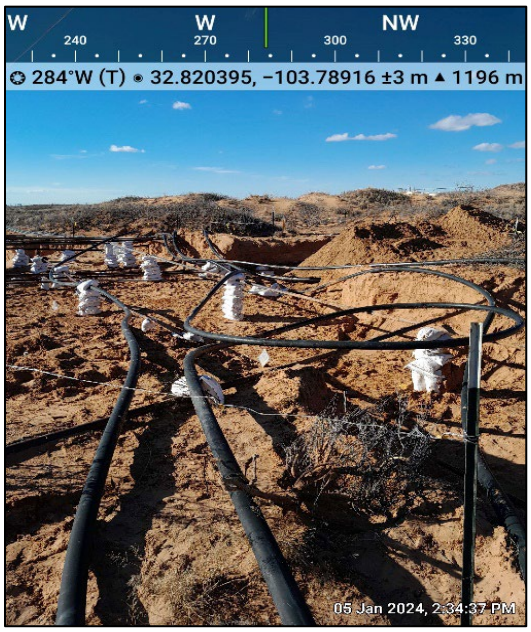
Photograph: 3 Date: 12/13/2023
Description: Excavation activities
View: Northwest



Photograph: 4 Date: 12/22/2023
Description: Excavation activities
View: West

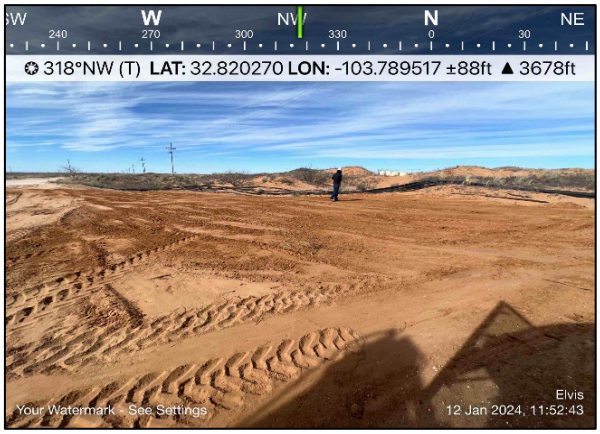
ENSOLUM

Photographic Log
Maverick Permian, LLC
Elvis Injection Line
Incident Number NAPP2213642290



Photograph: 5 Date: 1/5/2024
Description: Excavation activities
View: West

Photograph: 6 Date: 1/8/2024
Description: Excavation activities
View: North



Photograph: 7 Date: 1/12/2024
Description: Backfilled excavation
View: Northwest

Photograph: 8 Date: 1/12/2024
Description: Backfilled excavation
View: North

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-3238-1
Laboratory Sample Delivery Group: 03D2057011
Client Project/Site: Elivis Injection Line

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
10/26/2022 9:08:04 AM

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

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

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

Client: Ensolum
Project/Site: Elivis Injection Line

Laboratory Job ID: 890-3238-1
SDG: 03D2057011

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

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
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Job ID: 890-3238-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3238-1

Receipt
The samples were received on 10/20/2022 9:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH04 (890-3238-1), PH04 (890-3238-2) and PH04 (890-3238-3).

GC VOA
Method 8021B: The following sample was diluted due to the nature of the sample matrix: (880-20579-A-11-D MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-37510 and analytical batch 880-37597 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: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Client Sample ID: PH04

Date Collected: 10/19/22 10:00
Date Received: 10/20/22 09:38
Sample Depth: 1

Lab Sample ID: 890-3238-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 04:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 04:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 04:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/24/22 13:20	10/26/22 04:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 04:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/24/22 13:20	10/26/22 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*10/24/22 13:20*	*10/26/22 04:42*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*10/24/22 13:20*	*10/26/22 04:42*	*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			10/26/22 09:33	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			10/24/22 12:22	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		10/21/22 13:46	10/22/22 03:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 03:27	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*10/21/22 13:46*	*10/22/22 03:27*	*1*
o-Terphenyl	*86*		*70 - 130*	*10/21/22 13:46*	*10/22/22 03:27*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2020**		24.8		mg/Kg			10/23/22 17:59	5

Client Sample ID: PH04

Date Collected: 10/19/22 10:15
Date Received: 10/20/22 09:38
Sample Depth: 2

Lab Sample ID: 890-3238-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 05:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 05:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 05:03	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/24/22 13:20	10/26/22 05:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 05:03	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/24/22 13:20	10/26/22 05:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*10/24/22 13:20*	*10/26/22 05:03*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Client Sample ID: PH04

Date Collected: 10/19/22 10:15
Date Received: 10/20/22 09:38
Sample Depth: 2

Lab Sample ID: 890-3238-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*10/24/22 13:20*	*10/26/22 05:03*	*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			10/26/22 09:33	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			10/24/22 12:22	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		10/21/22 13:46	10/22/22 03:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 03:49	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*10/21/22 13:46*	*10/22/22 03:49*	*1*
o-Terphenyl	*105*		*70 - 130*	*10/21/22 13:46*	*10/22/22 03:49*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1560**		24.8		mg/Kg			10/23/22 18:04	5

Client Sample ID: PH04

Date Collected: 10/19/22 10:30
Date Received: 10/20/22 09:38
Sample Depth: 6

Lab Sample ID: 890-3238-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 05:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 05:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 05:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/24/22 13:20	10/26/22 05:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 05:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/24/22 13:20	10/26/22 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*10/24/22 13:20*	*10/26/22 05:23*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*10/24/22 13:20*	*10/26/22 05:23*	*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			10/26/22 09:33	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			10/24/22 12:22	1

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Client Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Client Sample ID: PH04

Date Collected: 10/19/22 10:30
Date Received: 10/20/22 09:38
Sample Depth: 6

Lab Sample ID: 890-3238-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 04:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 04:11	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 04:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*10/21/22 13:46*	*10/22/22 04:11*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/21/22 13:46*	*10/22/22 04:11*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**162**		5.00		mg/Kg			10/23/22 18:09	1

Surrogate Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-20579-A-11-C MS	Matrix Spike	89	99
880-20579-A-11-D MSD	Matrix Spike Duplicate	97	105
890-3238-1	PH04	115	92
890-3238-2	PH04	101	99
890-3238-3	PH04	95	99
LCS 880-37678/1-A	Lab Control Sample	92	101
LCSD 880-37678/2-A	Lab Control Sample Dup	94	96
MB 880-37517/5-A	Method Blank	109	105
MB 880-37678/5-A	Method Blank	108	106

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3237-A-1-B MS	Matrix Spike	84	91
890-3237-A-1-C MSD	Matrix Spike Duplicate	83	89
890-3238-1	PH04	75	86
890-3238-2	PH04	94	105
890-3238-3	PH04	83	99
LCS 880-37501/2-A	Lab Control Sample	97	120
LCSD 880-37501/3-A	Lab Control Sample Dup	96	116
MB 880-37501/1-A	Method Blank	90	108

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-37517/5-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/21/22 14:22	10/25/22 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*10/21/22 14:22*	*10/25/22 11:26*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*10/21/22 14:22*	*10/25/22 11:26*	*1*

Lab Sample ID: MB 880-37678/5-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37678

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/24/22 13:20	10/25/22 23:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*10/24/22 13:20*	*10/25/22 23:00*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/24/22 13:20*	*10/25/22 23:00*	*1*

Lab Sample ID: LCS 880-37678/1-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1004		mg/Kg		100	70 - 130		
Toluene			0.100	0.1057		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.09437		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.1930		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.1024		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-37678/2-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09898		mg/Kg		99	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

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

Lab Sample ID: LCSD 880-37678/2-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1070		mg/Kg		107	70 - 130	1	35
Ethylbenzene			0.100	0.09688		mg/Kg		97	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1994		mg/Kg		100	70 - 130	3	35
o-Xylene			0.100	0.1064		mg/Kg		106	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-20579-A-11-C MS
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37678

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1 F2	0.0998	0.1091		mg/Kg		109	70 - 130
Toluene	<0.00200	U F1 F2	0.0998	0.1041		mg/Kg		104	70 - 130
Ethylbenzene	<0.00200	U F1 F2	0.0998	0.07417		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1 F2	0.200	0.1392		mg/Kg		70	70 - 130
o-Xylene	<0.00200	U F1 F2	0.0998	0.08216		mg/Kg		82	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-20579-A-11-D MSD
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 37678

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.101	0.002336	F1 F2	mg/Kg		2	70 - 130	192	35
Toluene	<0.00200	U F1 F2	0.101	0.004596	F1 F2	mg/Kg		5	70 - 130	183	35
Ethylbenzene	<0.00200	U F1 F2	0.101	0.004565	F1 F2	mg/Kg		5	70 - 130	177	35
m-Xylene & p-Xylene	<0.00401	U F1 F2	0.201	0.01034	F1 F2	mg/Kg		5	70 - 130	172	35
o-Xylene	<0.00200	U F1 F2	0.101	0.005707	F1 F2	mg/Kg		6	70 - 130	174	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-37501/1-A
Matrix: Solid
Analysis Batch: 37440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37501

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		10/21/22 13:46	10/21/22 20:18	1

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QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

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

Lab Sample ID: MB 880-37501/1-A
Matrix: Solid
Analysis Batch: 37440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37501

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		10/21/22 13:46	10/21/22 20:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/22 13:46	10/21/22 20:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*10/21/22 13:46*	*10/21/22 20:18*	*1*
o-Terphenyl	*108*		*70 - 130*	*10/21/22 13:46*	*10/21/22 20:18*	*1*

Lab Sample ID: LCS 880-37501/2-A
Matrix: Solid
Analysis Batch: 37440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37501

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1112		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1053		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*120*		*70 - 130*

Lab Sample ID: LCSD 880-37501/3-A
Matrix: Solid
Analysis Batch: 37440

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37501

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	950.0		mg/Kg		95	70 - 130	16	20
Diesel Range Organics (Over C10-C28)			1000	1029		mg/Kg		103	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Lab Sample ID: 890-3237-A-1-B MS
Matrix: Solid
Analysis Batch: 37440

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37501

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	1078		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)	133		998	1006		mg/Kg		87	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

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

Lab Sample ID: 890-3237-A-1-C MSD
Matrix: Solid
Analysis Batch: 37440

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 37501

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	<49.8	U	998	1136		mg/Kg		111	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	133		998	1003		mg/Kg		87	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*83*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37510/1-A
Matrix: Solid
Analysis Batch: 37597

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			10/23/22 16:51	1

Lab Sample ID: LCS 880-37510/2-A
Matrix: Solid
Analysis Batch: 37597

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.4		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-37510/3-A
Matrix: Solid
Analysis Batch: 37597

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	255.9		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-3236-A-1-C MS
Matrix: Solid
Analysis Batch: 37597

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	403	F1	252	626.5	F1	mg/Kg		89	90 - 110		

Lab Sample ID: 890-3236-A-1-D MSD
Matrix: Solid
Analysis Batch: 37597

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	403	F1	252	629.1		mg/Kg		90	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

GC VOA

Prep Batch: 37517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-37517/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 37678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3238-1	PH04	Total/NA	Solid	5035	
890-3238-2	PH04	Total/NA	Solid	5035	
890-3238-3	PH04	Total/NA	Solid	5035	
MB 880-37678/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-37678/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37678/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20579-A-11-C MS	Matrix Spike	Total/NA	Solid	5035	
880-20579-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 37728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3238-1	PH04	Total/NA	Solid	8021B	37678
890-3238-2	PH04	Total/NA	Solid	8021B	37678
890-3238-3	PH04	Total/NA	Solid	8021B	37678
MB 880-37517/5-A	Method Blank	Total/NA	Solid	8021B	37517
MB 880-37678/5-A	Method Blank	Total/NA	Solid	8021B	37678
LCS 880-37678/1-A	Lab Control Sample	Total/NA	Solid	8021B	37678
LCSD 880-37678/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37678
880-20579-A-11-C MS	Matrix Spike	Total/NA	Solid	8021B	37678
880-20579-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	37678

Analysis Batch: 37869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3238-1	PH04	Total/NA	Solid	Total BTEX	
890-3238-2	PH04	Total/NA	Solid	Total BTEX	
890-3238-3	PH04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 37440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3238-1	PH04	Total/NA	Solid	8015B NM	37501
890-3238-2	PH04	Total/NA	Solid	8015B NM	37501
890-3238-3	PH04	Total/NA	Solid	8015B NM	37501
MB 880-37501/1-A	Method Blank	Total/NA	Solid	8015B NM	37501
LCS 880-37501/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37501
LCSD 880-37501/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37501
890-3237-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	37501
890-3237-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37501

Prep Batch: 37501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3238-1	PH04	Total/NA	Solid	8015NM Prep	
890-3238-2	PH04	Total/NA	Solid	8015NM Prep	
890-3238-3	PH04	Total/NA	Solid	8015NM Prep	
MB 880-37501/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37501/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

GC Semi VOA (Continued)

Prep Batch: 37501 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-37501/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3237-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3237-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3238-1	PH04	Total/NA	Solid	8015 NM	
890-3238-2	PH04	Total/NA	Solid	8015 NM	
890-3238-3	PH04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3238-1	PH04	Soluble	Solid	DI Leach	
890-3238-2	PH04	Soluble	Solid	DI Leach	
890-3238-3	PH04	Soluble	Solid	DI Leach	
MB 880-37510/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37510/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37510/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3236-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3236-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 37597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3238-1	PH04	Soluble	Solid	300.0	37510
890-3238-2	PH04	Soluble	Solid	300.0	37510
890-3238-3	PH04	Soluble	Solid	300.0	37510
MB 880-37510/1-A	Method Blank	Soluble	Solid	300.0	37510
LCS 880-37510/2-A	Lab Control Sample	Soluble	Solid	300.0	37510
LCSD 880-37510/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37510
890-3236-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	37510
890-3236-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	37510

Lab Chronicle

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Client Sample ID: PH04
Date Collected: 10/19/22 10:00
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3238-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 04:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37869	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37667	10/24/22 12:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	37501	10/21/22 13:46	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37440	10/22/22 03:27	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	37510	10/21/22 14:10	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	37597	10/23/22 17:59	CH	EET MID

Client Sample ID: PH04
Date Collected: 10/19/22 10:15
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3238-2
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	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 05:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37869	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37667	10/24/22 12:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	37501	10/21/22 13:46	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37440	10/22/22 03:49	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	37510	10/21/22 14:10	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	37597	10/23/22 18:04	CH	EET MID

Client Sample ID: PH04
Date Collected: 10/19/22 10:30
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3238-3
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	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 05:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37869	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37667	10/24/22 12:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	37501	10/21/22 13:46	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37440	10/22/22 04:11	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	37510	10/21/22 14:10	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37597	10/23/22 18:09	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

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: Elivis Injection Line

Job ID: 890-3238-1
SDG: 03D2057011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3238-1	PH04	Solid	10/19/22 10:00	10/20/22 09:38	1
890-3238-2	PH04	Solid	10/19/22 10:15	10/20/22 09:38	2
890-3238-3	PH04	Solid	10/19/22 10:30	10/20/22 09:38	6

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Chain of Custody

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

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Work Order No: _____

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

Work Order Comments

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

Project Name:	Elvis Injection Line	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057011	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Conner Shore		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TAM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.8
Total Containers:		Corrected Temperature:	3.6

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH04	S	10.19.22	1000	1'	G	1		X	X	X
PH04	S	10.19.22	1015	2'	G	1		X	X	X
PH04	S	10.19.22	1030	6'	G	1		X	X	X

ANALYSIS REQUEST

890-3238 Chain of Custody

Preservative Codes

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

Sample Comments

Incident Number

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuyt	10/20/22 938			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3238-1
SDG Number: 03D2057011

Login Number: 3238
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3238-1
SDG Number: 03D2057011

Login Number: 3238
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/21/22 10:46 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-3241-1
Laboratory Sample Delivery Group: 03D2057011
Client Project/Site: Elvis Injection Line

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
10/26/2022 9:12:52 AM

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

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

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

Client: Ensolum
Project/Site: Elvis Injection Line

Laboratory Job ID: 890-3241-1
SDG: 03D2057011

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Job ID: 890-3241-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3241-1

Receipt
The samples were received on 10/20/2022 9:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-3241-1), PH01 (890-3241-2) and PH01 (890-3241-3).

GC VOA
Method 8021B: The following sample was diluted due to the nature of the sample matrix: (880-20579-A-11-D MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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 880-37503 and analytical batch 880-37444 was outside the upper control limits.

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 880-37511 and analytical batch 880-37598 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: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Client Sample ID: PH01

Lab Sample ID: 890-3241-1
Matrix: Solid
Date Collected: 10/19/22 09:00
Date Received: 10/20/22 09:38
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 06:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 06:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 06:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/24/22 13:20	10/26/22 06:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 06:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/24/22 13:20	10/26/22 06:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*10/24/22 13:20*	*10/26/22 06:45*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*10/24/22 13:20*	*10/26/22 06:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/26/22 09:33	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			10/24/22 09:48	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		10/21/22 13:50	10/21/22 22:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/21/22 13:50	10/21/22 22:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/22 13:50	10/21/22 22:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*10/21/22 13:50*	*10/21/22 22:35*	*1*
o-Terphenyl	*95*		*70 - 130*	*10/21/22 13:50*	*10/21/22 22:35*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**242**		5.05		mg/Kg			10/23/22 20:59	1

Client Sample ID: PH01

Lab Sample ID: 890-3241-2
Matrix: Solid
Date Collected: 10/19/22 09:15
Date Received: 10/20/22 09:38
Sample Depth: 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		10/24/22 13:20	10/26/22 07:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 07:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 07:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/24/22 13:20	10/26/22 07:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/26/22 07:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/24/22 13:20	10/26/22 07:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*10/24/22 13:20*	*10/26/22 07:05*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Client Sample ID: PH01

Lab Sample ID: 890-3241-2
Matrix: Solid
Date Collected: 10/19/22 09:15
Date Received: 10/20/22 09:38
Sample Depth: 5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*10/24/22 13:20*	*10/26/22 07:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			10/26/22 09:33	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			10/24/22 09:48	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		10/21/22 13:50	10/21/22 22:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/21/22 13:50	10/21/22 22:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/22 13:50	10/21/22 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*10/21/22 13:50*	*10/21/22 22:55*	*1*
o-Terphenyl	*101*		*70 - 130*	*10/21/22 13:50*	*10/21/22 22:55*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6410**		50.2	mg/Kg			10/23/22 21:04	10

Client Sample ID: PH01

Lab Sample ID: 890-3241-3
Matrix: Solid
Date Collected: 10/19/22 09:30
Date Received: 10/20/22 09:38
Sample Depth: 13

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		10/24/22 13:20	10/26/22 07:26	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/24/22 13:20	10/26/22 07:26	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/24/22 13:20	10/26/22 07:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/24/22 13:20	10/26/22 07:26	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/24/22 13:20	10/26/22 07:26	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/24/22 13:20	10/26/22 07:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*10/24/22 13:20*	*10/26/22 07:26*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*10/24/22 13:20*	*10/26/22 07:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			10/26/22 09:33	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			10/24/22 09:48	1

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Client Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Client Sample ID: PH01

Date Collected: 10/19/22 09:30
Date Received: 10/20/22 09:38
Sample Depth: 13

Lab Sample ID: 890-3241-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/21/22 13:50	10/21/22 23:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/21/22 13:50	10/21/22 23:16	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/22 13:50	10/21/22 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*10/21/22 13:50*	*10/21/22 23:16*	*1*
o-Terphenyl	*96*		*70 - 130*	*10/21/22 13:50*	*10/21/22 23:16*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**787**		5.04		mg/Kg			10/23/22 21:18	1

Surrogate Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-20579-A-11-C MS	Matrix Spike	89	99										
880-20579-A-11-D MSD	Matrix Spike Duplicate	97	105										
890-3241-1	PH01	115	99										
890-3241-2	PH01	91	102										
890-3241-3	PH01	108	97										
LCS 880-37678/1-A	Lab Control Sample	92	101										
LCSD 880-37678/2-A	Lab Control Sample Dup	94	96										
MB 880-37517/5-A	Method Blank	109	105										
MB 880-37678/5-A	Method Blank	108	106										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3240-A-2-C MS	Matrix Spike	82	84										
890-3240-A-2-D MSD	Matrix Spike Duplicate	79	81										
890-3241-1	PH01	82	95										
890-3241-2	PH01	88	101										
890-3241-3	PH01	84	96										
LCS 880-37503/2-A	Lab Control Sample	90	100										
LCSD 880-37503/3-A	Lab Control Sample Dup	99	110										
MB 880-37503/1-A	Method Blank	118	133 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-37517/5-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/21/22 14:22	10/25/22 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*10/21/22 14:22*	*10/25/22 11:26*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*10/21/22 14:22*	*10/25/22 11:26*	*1*

Lab Sample ID: MB 880-37678/5-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37678

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/24/22 13:20	10/25/22 23:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*10/24/22 13:20*	*10/25/22 23:00*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/24/22 13:20*	*10/25/22 23:00*	*1*

Lab Sample ID: LCS 880-37678/1-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1004		mg/Kg		100	70 - 130		
Toluene			0.100	0.1057		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.09437		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.1930		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.1024		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-37678/2-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09898		mg/Kg		99	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

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

Lab Sample ID: LCSD 880-37678/2-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1070		mg/Kg		107	70 - 130	1	35
Ethylbenzene			0.100	0.09688		mg/Kg		97	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1994		mg/Kg		100	70 - 130	3	35
o-Xylene			0.100	0.1064		mg/Kg		106	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-20579-A-11-C MS
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37678

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1 F2	0.0998	0.1091		mg/Kg		109	70 - 130
Toluene	<0.00200	U F1 F2	0.0998	0.1041		mg/Kg		104	70 - 130
Ethylbenzene	<0.00200	U F1 F2	0.0998	0.07417		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1 F2	0.200	0.1392		mg/Kg		70	70 - 130
o-Xylene	<0.00200	U F1 F2	0.0998	0.08216		mg/Kg		82	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-20579-A-11-D MSD
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 37678

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.101	0.002336	F1 F2	mg/Kg		2	70 - 130	192	35
Toluene	<0.00200	U F1 F2	0.101	0.004596	F1 F2	mg/Kg		5	70 - 130	183	35
Ethylbenzene	<0.00200	U F1 F2	0.101	0.004565	F1 F2	mg/Kg		5	70 - 130	177	35
m-Xylene & p-Xylene	<0.00401	U F1 F2	0.201	0.01034	F1 F2	mg/Kg		5	70 - 130	172	35
o-Xylene	<0.00200	U F1 F2	0.101	0.005707	F1 F2	mg/Kg		6	70 - 130	174	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-37503/1-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37503

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		10/21/22 13:50	10/21/22 19:50	1

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QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

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

Lab Sample ID: MB 880-37503/1-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37503

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		10/21/22 13:50	10/21/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/22 13:50	10/21/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*10/21/22 13:50*	*10/21/22 19:50*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*10/21/22 13:50*	*10/21/22 19:50*	*1*

Lab Sample ID: LCS 880-37503/2-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37503

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	858.1		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	774.2		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

Lab Sample ID: LCSD 880-37503/3-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37503

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1041		mg/Kg		104	70 - 130	19	20
Diesel Range Organics (Over C10-C28)			1000	902.2		mg/Kg		90	70 - 130	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-3240-A-2-C MS
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37503

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	1086		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	781.6		mg/Kg		76	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

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

Lab Sample ID: 890-3240-A-2-D MSD
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 37503

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	998	1014		mg/Kg		102	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	762.1		mg/Kg		74	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*79*		*70 - 130*
o-Terphenyl	*81*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37511/1-A
Matrix: Solid
Analysis Batch: 37598

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			10/23/22 19:22	1

Lab Sample ID: LCS 880-37511/2-A
Matrix: Solid
Analysis Batch: 37598

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.6		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-37511/3-A
Matrix: Solid
Analysis Batch: 37598

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	259.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-3240-A-3-C MS
Matrix: Solid
Analysis Batch: 37598

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	1120		248	1334	4	mg/Kg		87	90 - 110		

Lab Sample ID: 890-3240-A-3-D MSD
Matrix: Solid
Analysis Batch: 37598

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	1120		248	1329	4	mg/Kg		85	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

GC VOA

Prep Batch: 37517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-37517/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 37678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3241-1	PH01	Total/NA	Solid	5035	
890-3241-2	PH01	Total/NA	Solid	5035	
890-3241-3	PH01	Total/NA	Solid	5035	
MB 880-37678/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-37678/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37678/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20579-A-11-C MS	Matrix Spike	Total/NA	Solid	5035	
880-20579-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 37728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3241-1	PH01	Total/NA	Solid	8021B	37678
890-3241-2	PH01	Total/NA	Solid	8021B	37678
890-3241-3	PH01	Total/NA	Solid	8021B	37678
MB 880-37517/5-A	Method Blank	Total/NA	Solid	8021B	37517
MB 880-37678/5-A	Method Blank	Total/NA	Solid	8021B	37678
LCS 880-37678/1-A	Lab Control Sample	Total/NA	Solid	8021B	37678
LCSD 880-37678/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37678
880-20579-A-11-C MS	Matrix Spike	Total/NA	Solid	8021B	37678
880-20579-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	37678

Analysis Batch: 37871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3241-1	PH01	Total/NA	Solid	Total BTEX	
890-3241-2	PH01	Total/NA	Solid	Total BTEX	
890-3241-3	PH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 37444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3241-1	PH01	Total/NA	Solid	8015B NM	37503
890-3241-2	PH01	Total/NA	Solid	8015B NM	37503
890-3241-3	PH01	Total/NA	Solid	8015B NM	37503
MB 880-37503/1-A	Method Blank	Total/NA	Solid	8015B NM	37503
LCS 880-37503/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37503
LCSD 880-37503/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37503
890-3240-A-2-C MS	Matrix Spike	Total/NA	Solid	8015B NM	37503
890-3240-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37503

Prep Batch: 37503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3241-1	PH01	Total/NA	Solid	8015NM Prep	
890-3241-2	PH01	Total/NA	Solid	8015NM Prep	
890-3241-3	PH01	Total/NA	Solid	8015NM Prep	
MB 880-37503/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37503/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

GC Semi VOA (Continued)

Prep Batch: 37503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-37503/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3240-A-2-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3240-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3241-1	PH01	Total/NA	Solid	8015 NM	
890-3241-2	PH01	Total/NA	Solid	8015 NM	
890-3241-3	PH01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3241-1	PH01	Soluble	Solid	DI Leach	
890-3241-2	PH01	Soluble	Solid	DI Leach	
890-3241-3	PH01	Soluble	Solid	DI Leach	
MB 880-37511/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37511/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37511/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3240-A-3-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3240-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 37598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3241-1	PH01	Soluble	Solid	300.0	37511
890-3241-2	PH01	Soluble	Solid	300.0	37511
890-3241-3	PH01	Soluble	Solid	300.0	37511
MB 880-37511/1-A	Method Blank	Soluble	Solid	300.0	37511
LCS 880-37511/2-A	Lab Control Sample	Soluble	Solid	300.0	37511
LCSD 880-37511/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37511
890-3240-A-3-C MS	Matrix Spike	Soluble	Solid	300.0	37511
890-3240-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	37511

Lab Chronicle

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Client Sample ID: PH01
Date Collected: 10/19/22 09:00
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3241-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 06:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37871	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37628	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/21/22 22:35	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37598	10/23/22 20:59	CH	EET MID

Client Sample ID: PH01
Date Collected: 10/19/22 09:15
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3241-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 07:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37871	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37628	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/21/22 22:55	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	37598	10/23/22 21:04	CH	EET MID

Client Sample ID: PH01
Date Collected: 10/19/22 09:30
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3241-3
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			5.02 g	5 mL	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 07:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37871	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37628	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/21/22 23:16	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37598	10/23/22 21:18	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

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: Elvis Injection Line

Job ID: 890-3241-1
SDG: 03D2057011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3241-1	PH01	Solid	10/19/22 09:00	10/20/22 09:38	1
890-3241-2	PH01	Solid	10/19/22 09:15	10/20/22 09:38	5
890-3241-3	PH01	Solid	10/19/22 09:30	10/20/22 09:38	13

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Chain of Custody

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

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Work Order No: _____

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

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

Project Name:	Elvis Injection Line	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057011	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Conner Shore		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TAM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.8	
Total Containers:		Corrected Temperature:	3.6	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH01	S	10.19.22	900	1'	G	1		X	X	X
PH01	S	10.19.22	915	5'	G	1		X	X	X
PH01	S	10.19.22	930	13'	G	1		X	X	X


890-3241 Chain of Custody

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

Sample Comments

Incident Number

10.19.22

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Salyk	10/20/22 938			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3241-1
SDG Number: 03D2057011

Login Number: 3241
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: 890-3241-1
SDG Number: 03D2057011

Login Number: 3241
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/21/22 10:46 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-3240-1
Laboratory Sample Delivery Group: 03D2057011
Client Project/Site: Elvis Injection Line

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
10/26/2022 9:12:52 AM

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

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

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

Client: Ensolum
Project/Site: Elvis Injection Line

Laboratory Job ID: 890-3240-1
SDG: 03D2057011

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Job ID: 890-3240-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3240-1

Receipt
The samples were received on 10/20/2022 9:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH02 (890-3240-1), PH02 (890-3240-2) and PH02 (890-3240-3).

GC VOA
Method 8021B: The following sample was diluted due to the nature of the sample matrix: (880-20579-A-11-D MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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 880-37503 and analytical batch 880-37444 was outside the upper control limits.

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 880-37511 and analytical batch 880-37598 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: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Client Sample ID: PH02

Date Collected: 10/19/22 09:05
Date Received: 10/20/22 09:38
Sample Depth: 1

Lab Sample ID: 890-3240-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 05:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 05:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 05:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/24/22 13:20	10/26/22 05:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/24/22 13:20	10/26/22 05:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/24/22 13:20	10/26/22 05:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*10/24/22 13:20*	*10/26/22 05:44*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*10/24/22 13:20*	*10/26/22 05:44*	*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			10/26/22 09:33	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			10/24/22 09:48	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		10/21/22 13:50	10/21/22 20:52	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		10/21/22 13:50	10/21/22 20:52	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		10/21/22 13:50	10/21/22 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*10/21/22 13:50*	*10/21/22 20:52*	*1*
o-Terphenyl	*89*		*70 - 130*	*10/21/22 13:50*	*10/21/22 20:52*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**165**		5.03		mg/Kg			10/23/22 20:35	1

Client Sample ID: PH02

Date Collected: 10/19/22 09:25
Date Received: 10/20/22 09:38
Sample Depth: 5

Lab Sample ID: 890-3240-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		10/24/22 13:20	10/26/22 06:04	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/24/22 13:20	10/26/22 06:04	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/24/22 13:20	10/26/22 06:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/24/22 13:20	10/26/22 06:04	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/24/22 13:20	10/26/22 06:04	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/24/22 13:20	10/26/22 06:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*10/24/22 13:20*	*10/26/22 06:04*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Client Sample ID: PH02

Date Collected: 10/19/22 09:25
Date Received: 10/20/22 09:38
Sample Depth: 5

Lab Sample ID: 890-3240-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*10/24/22 13:20*	*10/26/22 06:04*	*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			10/26/22 09:33	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			10/24/22 09:48	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		10/21/22 13:50	10/21/22 21:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		10/21/22 13:50	10/21/22 21:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		10/21/22 13:50	10/21/22 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*10/21/22 13:50*	*10/21/22 21:53*	*1*
o-Terphenyl	*104*		*70 - 130*	*10/21/22 13:50*	*10/21/22 21:53*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8760**		50.0	mg/Kg			10/23/22 20:39	10

Client Sample ID: PH02

Date Collected: 10/19/22 09:40
Date Received: 10/20/22 09:38
Sample Depth: 12

Lab Sample ID: 890-3240-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/24/22 13:20	10/26/22 06:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/24/22 13:20	10/26/22 06:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/24/22 13:20	10/26/22 06:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/24/22 13:20	10/26/22 06:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/24/22 13:20	10/26/22 06:24	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/24/22 13:20	10/26/22 06:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*10/24/22 13:20*	*10/26/22 06:24*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*10/24/22 13:20*	*10/26/22 06:24*	*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			10/26/22 09:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/24/22 09:48	1

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Client Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Client Sample ID: PH02

Date Collected: 10/19/22 09:40
Date Received: 10/20/22 09:38
Sample Depth: 12

Lab Sample ID: 890-3240-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		10/21/22 13:50	10/21/22 22:14	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		10/21/22 13:50	10/21/22 22:14	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		10/21/22 13:50	10/21/22 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*10/21/22 13:50*	*10/21/22 22:14*	*1*
o-Terphenyl	*96*		*70 - 130*	*10/21/22 13:50*	*10/21/22 22:14*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1120**		4.96		mg/Kg			10/23/22 20:44	1

Surrogate Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-20579-A-11-C MS	Matrix Spike	89	99
880-20579-A-11-D MSD	Matrix Spike Duplicate	97	105
890-3240-1	PH02	103	100
890-3240-2	PH02	101	102
890-3240-3	PH02	99	97
LCS 880-37678/1-A	Lab Control Sample	92	101
LCSD 880-37678/2-A	Lab Control Sample Dup	94	96
MB 880-37517/5-A	Method Blank	109	105
MB 880-37678/5-A	Method Blank	108	106

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3240-1	PH02	77	89
890-3240-2	PH02	93	104
890-3240-2 MS	PH02	82	84
890-3240-2 MSD	PH02	79	81
890-3240-3	PH02	83	96
LCS 880-37503/2-A	Lab Control Sample	90	100
LCSD 880-37503/3-A	Lab Control Sample Dup	99	110
MB 880-37503/1-A	Method Blank	118	133 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-37517/5-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37517

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/21/22 14:22	10/25/22 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/21/22 14:22	10/25/22 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*10/21/22 14:22*	*10/25/22 11:26*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*10/21/22 14:22*	*10/25/22 11:26*	*1*

Lab Sample ID: MB 880-37678/5-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37678

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/24/22 13:20	10/25/22 23:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/24/22 13:20	10/25/22 23:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*10/24/22 13:20*	*10/25/22 23:00*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/24/22 13:20*	*10/25/22 23:00*	*1*

Lab Sample ID: LCS 880-37678/1-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1004		mg/Kg		100	70 - 130		
Toluene			0.100	0.1057		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.09437		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.1930		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.1024		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-37678/2-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09898		mg/Kg		99	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

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

Lab Sample ID: LCSD 880-37678/2-A
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37678

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1070		mg/Kg		107	70 - 130	1	35
Ethylbenzene			0.100	0.09688		mg/Kg		97	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1994		mg/Kg		100	70 - 130	3	35
o-Xylene			0.100	0.1064		mg/Kg		106	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-20579-A-11-C MS
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37678

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1 F2	0.0998	0.1091		mg/Kg		109	70 - 130
Toluene	<0.00200	U F1 F2	0.0998	0.1041		mg/Kg		104	70 - 130
Ethylbenzene	<0.00200	U F1 F2	0.0998	0.07417		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	<0.00401	U F1 F2	0.200	0.1392		mg/Kg		70	70 - 130
o-Xylene	<0.00200	U F1 F2	0.0998	0.08216		mg/Kg		82	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-20579-A-11-D MSD
Matrix: Solid
Analysis Batch: 37728

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 37678

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.101	0.002336	F1 F2	mg/Kg		2	70 - 130	192	35
Toluene	<0.00200	U F1 F2	0.101	0.004596	F1 F2	mg/Kg		5	70 - 130	183	35
Ethylbenzene	<0.00200	U F1 F2	0.101	0.004565	F1 F2	mg/Kg		5	70 - 130	177	35
m-Xylene & p-Xylene	<0.00401	U F1 F2	0.201	0.01034	F1 F2	mg/Kg		5	70 - 130	172	35
o-Xylene	<0.00200	U F1 F2	0.101	0.005707	F1 F2	mg/Kg		6	70 - 130	174	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-37503/1-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37503

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		10/21/22 13:50	10/21/22 19:50	1

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QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

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

Lab Sample ID: MB 880-37503/1-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37503

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		10/21/22 13:50	10/21/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/22 13:50	10/21/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*10/21/22 13:50*	*10/21/22 19:50*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*10/21/22 13:50*	*10/21/22 19:50*	*1*

Lab Sample ID: LCS 880-37503/2-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37503

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	858.1		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	774.2		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

Lab Sample ID: LCSD 880-37503/3-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37503

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1041		mg/Kg		104	70 - 130	19	20
Diesel Range Organics (Over C10-C28)			1000	902.2		mg/Kg		90	70 - 130	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-3240-2 MS
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 37503

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	1086		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	781.6		mg/Kg		76	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

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

Lab Sample ID: 890-3240-2 MSD
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: PH02
Prep Type: Total/NA
Prep Batch: 37503

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	998	1014		mg/Kg		102	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	762.1		mg/Kg		74	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*79*		*70 - 130*
o-Terphenyl	*81*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37511/1-A
Matrix: Solid
Analysis Batch: 37598

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			10/23/22 19:22	1

Lab Sample ID: LCS 880-37511/2-A
Matrix: Solid
Analysis Batch: 37598

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.6		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-37511/3-A
Matrix: Solid
Analysis Batch: 37598

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	259.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-3240-3 MS
Matrix: Solid
Analysis Batch: 37598

Client Sample ID: PH02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1120		248	1334	4	mg/Kg		87	90 - 110		

Lab Sample ID: 890-3240-3 MSD
Matrix: Solid
Analysis Batch: 37598

Client Sample ID: PH02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1120		248	1329	4	mg/Kg		85	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

GC VOA

Prep Batch: 37517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-37517/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 37678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3240-1	PH02	Total/NA	Solid	5035	
890-3240-2	PH02	Total/NA	Solid	5035	
890-3240-3	PH02	Total/NA	Solid	5035	
MB 880-37678/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-37678/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37678/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20579-A-11-C MS	Matrix Spike	Total/NA	Solid	5035	
880-20579-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 37728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3240-1	PH02	Total/NA	Solid	8021B	37678
890-3240-2	PH02	Total/NA	Solid	8021B	37678
890-3240-3	PH02	Total/NA	Solid	8021B	37678
MB 880-37517/5-A	Method Blank	Total/NA	Solid	8021B	37517
MB 880-37678/5-A	Method Blank	Total/NA	Solid	8021B	37678
LCS 880-37678/1-A	Lab Control Sample	Total/NA	Solid	8021B	37678
LCSD 880-37678/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37678
880-20579-A-11-C MS	Matrix Spike	Total/NA	Solid	8021B	37678
880-20579-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	37678

Analysis Batch: 37870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3240-1	PH02	Total/NA	Solid	Total BTEX	
890-3240-2	PH02	Total/NA	Solid	Total BTEX	
890-3240-3	PH02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 37444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3240-1	PH02	Total/NA	Solid	8015B NM	37503
890-3240-2	PH02	Total/NA	Solid	8015B NM	37503
890-3240-3	PH02	Total/NA	Solid	8015B NM	37503
MB 880-37503/1-A	Method Blank	Total/NA	Solid	8015B NM	37503
LCS 880-37503/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37503
LCSD 880-37503/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37503
890-3240-2 MS	PH02	Total/NA	Solid	8015B NM	37503
890-3240-2 MSD	PH02	Total/NA	Solid	8015B NM	37503

Prep Batch: 37503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3240-1	PH02	Total/NA	Solid	8015NM Prep	
890-3240-2	PH02	Total/NA	Solid	8015NM Prep	
890-3240-3	PH02	Total/NA	Solid	8015NM Prep	
MB 880-37503/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37503/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

GC Semi VOA (Continued)

Prep Batch: 37503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-37503/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3240-2 MS	PH02	Total/NA	Solid	8015NM Prep	
890-3240-2 MSD	PH02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3240-1	PH02	Total/NA	Solid	8015 NM	
890-3240-2	PH02	Total/NA	Solid	8015 NM	
890-3240-3	PH02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3240-1	PH02	Soluble	Solid	DI Leach	
890-3240-2	PH02	Soluble	Solid	DI Leach	
890-3240-3	PH02	Soluble	Solid	DI Leach	
MB 880-37511/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37511/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37511/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3240-3 MS	PH02	Soluble	Solid	DI Leach	
890-3240-3 MSD	PH02	Soluble	Solid	DI Leach	

Analysis Batch: 37598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3240-1	PH02	Soluble	Solid	300.0	37511
890-3240-2	PH02	Soluble	Solid	300.0	37511
890-3240-3	PH02	Soluble	Solid	300.0	37511
MB 880-37511/1-A	Method Blank	Soluble	Solid	300.0	37511
LCS 880-37511/2-A	Lab Control Sample	Soluble	Solid	300.0	37511
LCSD 880-37511/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37511
890-3240-3 MS	PH02	Soluble	Solid	300.0	37511
890-3240-3 MSD	PH02	Soluble	Solid	300.0	37511

Lab Chronicle

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Client Sample ID: PH02
Date Collected: 10/19/22 09:05
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3240-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 05:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37870	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37627	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/21/22 20:52	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37598	10/23/22 20:35	CH	EET MID

Client Sample ID: PH02
Date Collected: 10/19/22 09:25
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3240-2
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			4.97 g	5 mL	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 06:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37870	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37627	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/21/22 21:53	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	37598	10/23/22 20:39	CH	EET MID

Client Sample ID: PH02
Date Collected: 10/19/22 09:40
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3240-3
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	37678	10/24/22 13:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37728	10/26/22 06:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			37870	10/26/22 09:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			37627	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/21/22 22:14	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37598	10/23/22 20:44	CH	EET MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

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: Elvis Injection Line

Job ID: 890-3240-1
SDG: 03D2057011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3240-1	PH02	Solid	10/19/22 09:05	10/20/22 09:38	1
890-3240-2	PH02	Solid	10/19/22 09:25	10/20/22 09:38	5
890-3240-3	PH02	Solid	10/19/22 09:40	10/20/22 09:38	12

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Chain of Custody

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

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Work Order No: _____

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

Work Order Comments

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

Project Name:	Elvis Injection Line	Turn Around	
Project Number:	03D2057011	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	3.8	
Total Containers:		Corrected Temperature:	3.6	

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
PH02	S	10.19.22	905	1'	G	1		X	X	X
PH02	S	10.19.22	925	5'	G	1		X	X	X
PH02	S	10.19.22	940	12'	G	1		X	X	X

890-3240 Chain of Custody

Sample Comments

Incident Number

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Salt	10/26/22 938	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3240-1
SDG Number: 03D2057011

Login Number: 3240
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: 890-3240-1
SDG Number: 03D2057011

Login Number: 3240
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/21/22 10:46 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-3236-1
Laboratory Sample Delivery Group: 03D2057011
Client Project/Site: Elivis Injection Line

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
10/28/2022 10:57:43 AM

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

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

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

Client: Ensolum
Project/Site: Elivis Injection Line

Laboratory Job ID: 890-3236-1
SDG: 03D2057011

Table of Contents

Eurofins Carlsbad
10/28/2022

Definitions/Glossary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Job ID: 890-3236-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3236-1

Receipt
The samples were received on 10/20/2022 9:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH05 (890-3236-1), PH05 (890-3236-2), PH05 (890-3236-3) and PH05 (HOLD) (890-3236-4).

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

GC Semi VOA
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 880-37510 and analytical batch 880-37597 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: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Client Sample ID: PH05

Date Collected: 10/19/22 14:00
Date Received: 10/20/22 09:38
Sample Depth: 1

Lab Sample ID: 890-3236-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/27/22 09:43	10/27/22 21:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/27/22 09:43	10/27/22 21:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/27/22 09:43	10/27/22 21:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/27/22 09:43	10/27/22 21:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/27/22 09:43	10/27/22 21:48	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/27/22 09:43	10/27/22 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*10/27/22 09:43*	*10/27/22 21:48*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*10/27/22 09:43*	*10/27/22 21:48*	*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			10/28/22 10:42	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			10/24/22 12:22	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		10/21/22 13:46	10/22/22 05:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/21/22 13:46	10/22/22 05:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/22 13:46	10/22/22 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*10/21/22 13:46*	*10/22/22 05:16*	*1*
o-Terphenyl	*83*		*70 - 130*	*10/21/22 13:46*	*10/22/22 05:16*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**403**	**F1**	5.04		mg/Kg			10/23/22 17:06	1

Client Sample ID: PH05

Date Collected: 10/19/22 14:10
Date Received: 10/20/22 09:38
Sample Depth: 3

Lab Sample ID: 890-3236-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/27/22 09:43	10/27/22 22:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/27/22 09:43	10/27/22 22:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/27/22 09:43	10/27/22 22:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/27/22 09:43	10/27/22 22:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/27/22 09:43	10/27/22 22:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/27/22 09:43	10/27/22 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*10/27/22 09:43*	*10/27/22 22:09*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Client Sample ID: PH05

Lab Sample ID: 890-3236-2
Matrix: Solid
Date Collected: 10/19/22 14:10
Date Received: 10/20/22 09:38
Sample Depth: 3

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*10/27/22 09:43*	*10/27/22 22:09*	*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			10/28/22 10:42	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			10/24/22 12:22	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		10/21/22 13:46	10/22/22 04:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/22 13:46	10/22/22 04:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/22 13:46	10/22/22 04:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*10/21/22 13:46*	*10/22/22 04:33*	*1*
o-Terphenyl	*104*		*70 - 130*	*10/21/22 13:46*	*10/22/22 04:33*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4530**		25.0	mg/Kg			10/23/22 17:20	5

Client Sample ID: PH05

Lab Sample ID: 890-3236-3
Matrix: Solid
Date Collected: 10/19/22 14:20
Date Received: 10/20/22 09:38
Sample Depth: 6

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		10/27/22 09:43	10/27/22 22:29	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/27/22 09:43	10/27/22 22:29	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/27/22 09:43	10/27/22 22:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/27/22 09:43	10/27/22 22:29	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/27/22 09:43	10/27/22 22:29	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/27/22 09:43	10/27/22 22:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*10/27/22 09:43*	*10/27/22 22:29*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*10/27/22 09:43*	*10/27/22 22:29*	*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			10/28/22 10:42	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			10/24/22 12:22	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Client Sample ID: PH05

Date Collected: 10/19/22 14:20
Date Received: 10/20/22 09:38
Sample Depth: 6

Lab Sample ID: 890-3236-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 04:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 04:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/22 13:46	10/22/22 04:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*10/21/22 13:46*	*10/22/22 04:55*	*1*
o-Terphenyl	*108*		*70 - 130*	*10/21/22 13:46*	*10/22/22 04:55*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**431**		5.00		mg/Kg			10/23/22 17:25	1

Surrogate Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3236-1	PH05	112	99										
890-3236-2	PH05	115	99										
890-3236-3	PH05	116	93										
890-3252-A-2-B MS	Matrix Spike	114	101										
890-3252-A-2-C MSD	Matrix Spike Duplicate	125	93										
LCS 880-37686/1-A	Lab Control Sample	111	98										
LCS 880-37987/1-A	Lab Control Sample	96	96										
LCSD 880-37686/2-A	Lab Control Sample Dup	111	94										
LCSD 880-37987/2-A	Lab Control Sample Dup	104	101										
MB 880-37987/5-A	Method Blank	111	106										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3236-1	PH05	75	83										
890-3236-2	PH05	87	104										
890-3236-3	PH05	90	108										
890-3237-A-1-B MS	Matrix Spike	84	91										
890-3237-A-1-C MSD	Matrix Spike Duplicate	83	89										
LCS 880-37501/2-A	Lab Control Sample	97	120										
LCSD 880-37501/3-A	Lab Control Sample Dup	96	116										
MB 880-37501/1-A	Method Blank	90	108										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 880-37686/1-A
Matrix: Solid
Analysis Batch: 37962

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37686

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08480		mg/Kg		85	70 - 130		
Toluene			0.100	0.09591		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.08819		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1857		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.1003		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-37686/2-A
Matrix: Solid
Analysis Batch: 37962

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37686

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09111		mg/Kg		91	70 - 130	7	35
Toluene			0.100	0.1067		mg/Kg		107	70 - 130	11	35
Ethylbenzene			0.100	0.09617		mg/Kg		96	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.2029		mg/Kg		101	70 - 130	9	35
o-Xylene			0.100	0.1086		mg/Kg		109	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-3252-A-2-B MS
Matrix: Solid
Analysis Batch: 37962

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37686

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0998	0.09028		mg/Kg		90	70 - 130		
Toluene	<0.00201	U	0.0998	0.09150		mg/Kg		92	70 - 130		
Ethylbenzene	<0.00201	U	0.0998	0.08339		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1745		mg/Kg		87	70 - 130		
o-Xylene	<0.00201	U	0.0998	0.09453		mg/Kg		95	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-3252-A-2-C MSD
Matrix: Solid
Analysis Batch: 37962

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 37686

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.06966		mg/Kg		70	70 - 130	26	35
Toluene	<0.00201	U	0.0990	0.08940		mg/Kg		90	70 - 130	2	35
Ethylbenzene	<0.00201	U	0.0990	0.08208		mg/Kg		83	70 - 130	2	35

QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

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

Lab Sample ID: 890-3252-A-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37962 — **Prep Batch: 37686**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1737		mg/Kg		88	70 - 130	0	35
o-Xylene	<0.00201	U	0.0990	0.09585		mg/Kg		97	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: MB 880-37987/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37962 — **Prep Batch: 37987**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/27/22 09:43	10/27/22 14:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/27/22 09:43	10/27/22 14:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/27/22 09:43	10/27/22 14:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/27/22 09:43	10/27/22 14:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/27/22 09:43	10/27/22 14:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/27/22 09:43	10/27/22 14:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*10/27/22 09:43*	*10/27/22 14:04*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/27/22 09:43*	*10/27/22 14:04*	*1*

Lab Sample ID: LCS 880-37987/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37962 — **Prep Batch: 37987**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09096		mg/Kg		91	70 - 130		
Toluene			0.100	0.09666		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.08571		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1777		mg/Kg		89	70 - 130		
o-Xylene			0.100	0.09292		mg/Kg		93	70 - 130		

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

Lab Sample ID: LCSD 880-37987/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37962 — **Prep Batch: 37987**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1002		mg/Kg		100	70 - 130	10	35
Toluene			0.100	0.1110		mg/Kg		111	70 - 130	14	35
Ethylbenzene			0.100	0.09703		mg/Kg		97	70 - 130	12	35
m-Xylene & p-Xylene			0.200	0.2041		mg/Kg		102	70 - 130	14	35
o-Xylene			0.100	0.1074		mg/Kg		107	70 - 130	14	35

QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

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

Lab Sample ID: MB 880-37501/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37440 — **Prep Batch: 37501**

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		10/21/22 13:46	10/21/22 20:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/21/22 13:46	10/21/22 20:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/22 13:46	10/21/22 20:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	10/21/22 13:46	10/21/22 20:18	1
o-Terphenyl	108		70 - 130	10/21/22 13:46	10/21/22 20:18	1

Lab Sample ID: LCS 880-37501/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37440 — **Prep Batch: 37501**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1112		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1053		mg/Kg		105	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: LCSD 880-37501/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37440 — **Prep Batch: 37501**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	950.0		mg/Kg		95	70 - 130	16	20
Diesel Range Organics (Over C10-C28)			1000	1029		mg/Kg		103	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	116		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

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

Lab Sample ID: 890-3237-A-1-B MS
Matrix: Solid
Analysis Batch: 37440

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37501

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	1078		mg/Kg		105	70 - 130
Diesel Range Organics (Over C10-C28)	133		998	1006		mg/Kg		87	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: 890-3237-A-1-C MSD
Matrix: Solid
Analysis Batch: 37440

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 37501

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	<49.8	U	998	1136		mg/Kg		111	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	133		998	1003		mg/Kg		87	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*83*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37510/1-A
Matrix: Solid
Analysis Batch: 37597

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			10/23/22 16:51	1

Lab Sample ID: LCS 880-37510/2-A
Matrix: Solid
Analysis Batch: 37597

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			250	258.4		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-37510/3-A
Matrix: Solid
Analysis Batch: 37597

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	255.9		mg/Kg		102	90 - 110	1	20

QC Sample Results

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3236-1 MS
Matrix: Solid
Analysis Batch: 37597

Client Sample ID: PH05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	403	F1	252	626.5	F1	mg/Kg		89	90 - 110		

Lab Sample ID: 890-3236-1 MSD
Matrix: Solid
Analysis Batch: 37597

Client Sample ID: PH05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	403	F1	252	629.1		mg/Kg		90	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

GC VOA

Prep Batch: 37686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-37686/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37686/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3252-A-2-B MS	Matrix Spike	Total/NA	Solid	5035	
890-3252-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 37962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3236-1	PH05	Total/NA	Solid	8021B	37987
890-3236-2	PH05	Total/NA	Solid	8021B	37987
890-3236-3	PH05	Total/NA	Solid	8021B	37987
MB 880-37987/5-A	Method Blank	Total/NA	Solid	8021B	37987
LCS 880-37686/1-A	Lab Control Sample	Total/NA	Solid	8021B	37686
LCS 880-37987/1-A	Lab Control Sample	Total/NA	Solid	8021B	37987
LCSD 880-37686/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37686
LCSD 880-37987/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37987
890-3252-A-2-B MS	Matrix Spike	Total/NA	Solid	8021B	37686
890-3252-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	37686

Prep Batch: 37987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3236-1	PH05	Total/NA	Solid	5035	
890-3236-2	PH05	Total/NA	Solid	5035	
890-3236-3	PH05	Total/NA	Solid	5035	
MB 880-37987/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-37987/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37987/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 38085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3236-1	PH05	Total/NA	Solid	Total BTEX	
890-3236-2	PH05	Total/NA	Solid	Total BTEX	
890-3236-3	PH05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 37440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3236-1	PH05	Total/NA	Solid	8015B NM	37501
890-3236-2	PH05	Total/NA	Solid	8015B NM	37501
890-3236-3	PH05	Total/NA	Solid	8015B NM	37501
MB 880-37501/1-A	Method Blank	Total/NA	Solid	8015B NM	37501
LCS 880-37501/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37501
LCSD 880-37501/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37501
890-3237-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	37501
890-3237-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37501

Prep Batch: 37501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3236-1	PH05	Total/NA	Solid	8015NM Prep	
890-3236-2	PH05	Total/NA	Solid	8015NM Prep	
890-3236-3	PH05	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

GC Semi VOA (Continued)

Prep Batch: 37501 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-37501/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37501/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-37501/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3237-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3237-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3236-1	PH05	Total/NA	Solid	8015 NM	
890-3236-2	PH05	Total/NA	Solid	8015 NM	
890-3236-3	PH05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3236-1	PH05	Soluble	Solid	DI Leach	
890-3236-2	PH05	Soluble	Solid	DI Leach	
890-3236-3	PH05	Soluble	Solid	DI Leach	
MB 880-37510/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37510/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37510/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3236-1 MS	PH05	Soluble	Solid	DI Leach	
890-3236-1 MSD	PH05	Soluble	Solid	DI Leach	

Analysis Batch: 37597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3236-1	PH05	Soluble	Solid	300.0	37510
890-3236-2	PH05	Soluble	Solid	300.0	37510
890-3236-3	PH05	Soluble	Solid	300.0	37510
MB 880-37510/1-A	Method Blank	Soluble	Solid	300.0	37510
LCS 880-37510/2-A	Lab Control Sample	Soluble	Solid	300.0	37510
LCSD 880-37510/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37510
890-3236-1 MS	PH05	Soluble	Solid	300.0	37510
890-3236-1 MSD	PH05	Soluble	Solid	300.0	37510

Lab Chronicle

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Client Sample ID: PH05
Date Collected: 10/19/22 14:00
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3236-1
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	37987	10/27/22 09:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37962	10/27/22 21:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38085	10/28/22 10:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			37668	10/24/22 12:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	37501	10/21/22 13:46	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37440	10/22/22 05:16	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	37510	10/21/22 14:10	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37597	10/23/22 17:06	CH	EET MID

Client Sample ID: PH05
Date Collected: 10/19/22 14:10
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3236-2
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			5.02 g	5 mL	37987	10/27/22 09:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37962	10/27/22 22:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38085	10/28/22 10:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			37668	10/24/22 12:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	37501	10/21/22 13:46	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37440	10/22/22 04:33	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	37510	10/21/22 14:10	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	37597	10/23/22 17:20	CH	EET MID

Client Sample ID: PH05
Date Collected: 10/19/22 14:20
Date Received: 10/20/22 09:38

Lab Sample ID: 890-3236-3
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	37987	10/27/22 09:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	37962	10/27/22 22:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38085	10/28/22 10:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			37668	10/24/22 12:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	37501	10/21/22 13:46	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37440	10/22/22 04:55	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	37510	10/21/22 14:10	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	37597	10/23/22 17:25	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

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: Elivis Injection Line

Job ID: 890-3236-1
SDG: 03D2057011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3236-1	PH05	Solid	10/19/22 14:00	10/20/22 09:38	1
890-3236-2	PH05	Solid	10/19/22 14:10	10/20/22 09:38	3
890-3236-3	PH05	Solid	10/19/22 14:20	10/20/22 09:38	6

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Chain of Custody

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

Work Order No: _____

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

Work Order Comments

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

Project Name:	Elvis Injection Line	Turn Around	☑ Routine ☐ Rush	Pres. Code	
Project Number:	03D2057011	Due Date:			
Project Location:		TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Conner Shore				
PO #:					

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TNM 007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.8	
Total Containers:		Corrected Temperature:	3.6	

ANALYSIS REQUEST

Preservative Codes

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

890-3236 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Parameters
PH05	S	10.19.22	1400	1'	G	1	X	X	X	
PH05	S	10.19.22	1410	3'	G	1	X	X	X	
PH05	S	10.19.22	1420	6'	G	1	X	X	X	
PH05 (HOLD)	S	10.19.22	1430	10'	G	1	X	X	X	

Sample Comments

Incident Number
HOLD PENDING 6' SAMPLE

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Scott	10/20/22 935			
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3236-1
SDG Number: 03D2057011

Login Number: 3236
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: 890-3236-1
SDG Number: 03D2057011

Login Number: 3236
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/21/22 10:46 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-3242-1
Laboratory Sample Delivery Group: 03D2057011
Client Project/Site: Elvis Injection Line

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
10/31/2022 9:38:06 AM

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

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

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

Client: Ensolum
Project/Site: Elvis Injection Line

Laboratory Job ID: 890-3242-1
SDG: 03D2057011

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Qualifiers

GC VOA

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

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
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Job ID: 890-3242-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3242-1

Receipt
The samples were received on 10/20/2022 9:58 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH03 (890-3242-1), PH03 (890-3242-2) and PH03 (890-3242-3).

GC VOA
Method 8021B: The following samples were diluted due to the nature of the sample matrix: (880-20605-A-1-E MS) and (880-20605-A-1-F MSD). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-38021 and analytical batch 880-38089 was outside the upper control 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 880-37503 and analytical batch 880-37444 was outside the upper control limits.

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 880-37511 and analytical batch 880-37598 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: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Client Sample ID: PH03

Lab Sample ID: 890-3242-1
Matrix: Solid
Date Collected: 10/19/22 12:00
Date Received: 10/20/22 09:58
Sample Depth: 1'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		10/26/22 14:13	10/29/22 02:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/26/22 14:13	10/29/22 02:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/26/22 14:13	10/29/22 02:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/26/22 14:13	10/29/22 02:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/26/22 14:13	10/29/22 02:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/26/22 14:13	10/29/22 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*10/26/22 14:13*	*10/29/22 02:15*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*10/26/22 14:13*	*10/29/22 02:15*	*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			10/30/22 21:36	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			10/24/22 09:48	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		10/21/22 13:50	10/21/22 23:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/21/22 13:50	10/21/22 23:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/22 13:50	10/21/22 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*10/21/22 13:50*	*10/21/22 23:36*	*1*
o-Terphenyl	*86*		*70 - 130*	*10/21/22 13:50*	*10/21/22 23:36*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1260**		25.2		mg/Kg			10/23/22 21:23	5

Client Sample ID: PH03

Lab Sample ID: 890-3242-2
Matrix: Solid
Date Collected: 10/19/22 12:15
Date Received: 10/20/22 09:58
Sample Depth: 8'

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		10/26/22 14:13	10/29/22 02:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/26/22 14:13	10/29/22 02:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/26/22 14:13	10/29/22 02:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/26/22 14:13	10/29/22 02:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/26/22 14:13	10/29/22 02:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/26/22 14:13	10/29/22 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*10/26/22 14:13*	*10/29/22 02:36*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Client Sample ID: PH03

Date Collected: 10/19/22 12:15
Date Received: 10/20/22 09:58
Sample Depth: 8'

Lab Sample ID: 890-3242-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*10/26/22 14:13*	*10/29/22 02:36*	*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			10/30/22 21:36	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			10/24/22 09:48	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		10/21/22 13:50	10/21/22 23:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		10/21/22 13:50	10/21/22 23:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		10/21/22 13:50	10/21/22 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*10/21/22 13:50*	*10/21/22 23:57*	*1*
o-Terphenyl	*101*		*70 - 130*	*10/21/22 13:50*	*10/21/22 23:57*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4810**		24.9	mg/Kg			10/23/22 21:28	5

Client Sample ID: PH03

Date Collected: 10/19/22 12:30
Date Received: 10/20/22 09:58
Sample Depth: 15'

Lab Sample ID: 890-3242-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/26/22 14:13	10/29/22 02:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/26/22 14:13	10/29/22 02:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/26/22 14:13	10/29/22 02:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/26/22 14:13	10/29/22 02:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/26/22 14:13	10/29/22 02:56	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/26/22 14:13	10/29/22 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*10/26/22 14:13*	*10/29/22 02:56*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*10/26/22 14:13*	*10/29/22 02:56*	*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			10/30/22 21:36	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			10/24/22 09:48	1

Client Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Client Sample ID: PH03

Date Collected: 10/19/22 12:30
Date Received: 10/20/22 09:58
Sample Depth: 15'

Lab Sample ID: 890-3242-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/21/22 13:50	10/22/22 00:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/21/22 13:50	10/22/22 00:18	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/21/22 13:50	10/22/22 00:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*10/21/22 13:50*	*10/22/22 00:18*	*1*
o-Terphenyl	*95*		*70 - 130*	*10/21/22 13:50*	*10/22/22 00:18*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4020**		50.4		mg/Kg			10/23/22 21:33	10

Surrogate Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-20605-A-1-E MS	Matrix Spike	101	92										
880-20605-A-1-F MSD	Matrix Spike Duplicate	102	90										
890-3242-1	PH03	118	94										
890-3242-2	PH03	129	93										
890-3242-3	PH03	117	91										
LCS 880-37911/1-A	Lab Control Sample	99	91										
LCSD 880-37911/2-A	Lab Control Sample Dup	101	91										
MB 880-37911/5-A	Method Blank	102	87										
MB 880-38021/5-A	Method Blank	72	60 S1-										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3240-A-2-C MS	Matrix Spike	82	84										
890-3240-A-2-D MSD	Matrix Spike Duplicate	79	81										
890-3242-1	PH03	75	86										
890-3242-2	PH03	87	101										
890-3242-3	PH03	83	95										
LCS 880-37503/2-A	Lab Control Sample	90	100										
LCSD 880-37503/3-A	Lab Control Sample Dup	99	110										
MB 880-37503/1-A	Method Blank	118	133 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-37911/5-A
Matrix: Solid
Analysis Batch: 38089

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37911

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/26/22 14:13	10/29/22 01:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/26/22 14:13	10/29/22 01:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/26/22 14:13	10/29/22 01:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/26/22 14:13	10/29/22 01:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/26/22 14:13	10/29/22 01:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/26/22 14:13	10/29/22 01:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*10/26/22 14:13*	*10/29/22 01:12*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*10/26/22 14:13*	*10/29/22 01:12*	*1*

Lab Sample ID: LCS 880-37911/1-A
Matrix: Solid
Analysis Batch: 38089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37911

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07484		mg/Kg		75	70 - 130		
Toluene			0.100	0.07671		mg/Kg		77	70 - 130		
Ethylbenzene			0.100	0.07425		mg/Kg		74	70 - 130		
m-Xylene & p-Xylene			0.200	0.1480		mg/Kg		74	70 - 130		
o-Xylene			0.100	0.08609		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: LCSD 880-37911/2-A
Matrix: Solid
Analysis Batch: 38089

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37911

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.07938		mg/Kg		79	70 - 130	6	35
Toluene			0.100	0.08189		mg/Kg		82	70 - 130	7	35
Ethylbenzene			0.100	0.08032		mg/Kg		80	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1556		mg/Kg		78	70 - 130	5	35
o-Xylene			0.100	0.08950		mg/Kg		89	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 880-20605-A-1-E MS
Matrix: Solid
Analysis Batch: 38089

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1	0.100	0.08080		mg/Kg		80	70 - 130		
Toluene	<0.00201	U F1	0.100	0.07923		mg/Kg		78	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

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

Lab Sample ID: 880-20605-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 38089 — **Prep Batch: 37911**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U F1	0.100	0.07637		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.1440		mg/Kg		72	70 - 130
o-Xylene	<0.00201	U	0.100	0.08398		mg/Kg		84	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 880-20605-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 38089 — **Prep Batch: 37911**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.06610	F1	mg/Kg		66	70 - 130	20	35
Toluene	<0.00201	U F1	0.0990	0.06481	F1	mg/Kg		65	70 - 130	20	35
Ethylbenzene	<0.00201	U F1	0.0990	0.06337	F1	mg/Kg		64	70 - 130	19	35
m-Xylene & p-Xylene	<0.00402	U F1	0.198	0.1224	F1	mg/Kg		62	70 - 130	16	35
o-Xylene	<0.00201	U	0.0990	0.07052		mg/Kg		71	70 - 130	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: MB 880-38021/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 38089 — **Prep Batch: 38021**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		10/27/22 13:34	10/28/22 13:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/27/22 13:34	10/28/22 13:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/27/22 13:34	10/28/22 13:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		10/27/22 13:34	10/28/22 13:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/27/22 13:34	10/28/22 13:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		10/27/22 13:34	10/28/22 13:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*10/27/22 13:34*	*10/28/22 13:48*	*1*
1,4-Difluorobenzene (Surr)	*60*	*S1-*	*70 - 130*	*10/27/22 13:34*	*10/28/22 13:48*	*1*

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

Lab Sample ID: MB 880-37503/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37444 — **Prep Batch: 37503**

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		10/21/22 13:50	10/21/22 19:50	1

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

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

Lab Sample ID: MB 880-37503/1-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 37503

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		10/21/22 13:50	10/21/22 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/21/22 13:50	10/21/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*10/21/22 13:50*	*10/21/22 19:50*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*10/21/22 13:50*	*10/21/22 19:50*	*1*

Lab Sample ID: LCS 880-37503/2-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 37503

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	858.1		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	774.2		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

Lab Sample ID: LCSD 880-37503/3-A
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 37503

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1041		mg/Kg		104	70 - 130	19	20
Diesel Range Organics (Over C10-C28)			1000	902.2		mg/Kg		90	70 - 130	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 890-3240-A-2-C MS
Matrix: Solid
Analysis Batch: 37444

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 37503

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	1086		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	998	781.6		mg/Kg		76	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

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

Lab Sample ID: 890-3240-A-2-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 37444 — **Prep Batch: 37503**

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	998	1014		mg/Kg		102	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	762.1		mg/Kg		74	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*79*		*70 - 130*
o-Terphenyl	*81*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-37511/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 37598

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/23/22 19:22	1

Lab Sample ID: LCS 880-37511/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 37598

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.6		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-37511/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 37598

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	259.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-3239-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 37598

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1220		1240	2517		mg/Kg		105	90 - 110		

Lab Sample ID: 890-3239-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 37598

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1220		1240	2519		mg/Kg		105	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3240-A-3-C MS
Matrix: Solid
Analysis Batch: 37598

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	1120		248	1334	4	mg/Kg		87	90 - 110		

Lab Sample ID: 890-3240-A-3-D MSD
Matrix: Solid
Analysis Batch: 37598

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	1120		248	1329	4	mg/Kg		85	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

GC VOA

Prep Batch: 37911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3242-1	PH03	Total/NA	Solid	5035	
890-3242-2	PH03	Total/NA	Solid	5035	
890-3242-3	PH03	Total/NA	Solid	5035	
MB 880-37911/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-37911/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-37911/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-20605-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-20605-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 38021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-38021/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 38089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3242-1	PH03	Total/NA	Solid	8021B	37911
890-3242-2	PH03	Total/NA	Solid	8021B	37911
890-3242-3	PH03	Total/NA	Solid	8021B	37911
MB 880-37911/5-A	Method Blank	Total/NA	Solid	8021B	37911
MB 880-38021/5-A	Method Blank	Total/NA	Solid	8021B	38021
LCS 880-37911/1-A	Lab Control Sample	Total/NA	Solid	8021B	37911
LCSD 880-37911/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	37911
880-20605-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	37911
880-20605-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	37911

Analysis Batch: 38188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3242-1	PH03	Total/NA	Solid	Total BTEX	
890-3242-2	PH03	Total/NA	Solid	Total BTEX	
890-3242-3	PH03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 37444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3242-1	PH03	Total/NA	Solid	8015B NM	37503
890-3242-2	PH03	Total/NA	Solid	8015B NM	37503
890-3242-3	PH03	Total/NA	Solid	8015B NM	37503
MB 880-37503/1-A	Method Blank	Total/NA	Solid	8015B NM	37503
LCS 880-37503/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	37503
LCSD 880-37503/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	37503
890-3240-A-2-C MS	Matrix Spike	Total/NA	Solid	8015B NM	37503
890-3240-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	37503

Prep Batch: 37503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3242-1	PH03	Total/NA	Solid	8015NM Prep	
890-3242-2	PH03	Total/NA	Solid	8015NM Prep	
890-3242-3	PH03	Total/NA	Solid	8015NM Prep	
MB 880-37503/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-37503/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

GC Semi VOA (Continued)

Prep Batch: 37503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-37503/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3240-A-2-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3240-A-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 37629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3242-1	PH03	Total/NA	Solid	8015 NM	
890-3242-2	PH03	Total/NA	Solid	8015 NM	
890-3242-3	PH03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 37511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3242-1	PH03	Soluble	Solid	DI Leach	
890-3242-2	PH03	Soluble	Solid	DI Leach	
890-3242-3	PH03	Soluble	Solid	DI Leach	
MB 880-37511/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-37511/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-37511/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3239-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3239-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-3240-A-3-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3240-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 37598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3242-1	PH03	Soluble	Solid	300.0	37511
890-3242-2	PH03	Soluble	Solid	300.0	37511
890-3242-3	PH03	Soluble	Solid	300.0	37511
MB 880-37511/1-A	Method Blank	Soluble	Solid	300.0	37511
LCS 880-37511/2-A	Lab Control Sample	Soluble	Solid	300.0	37511
LCSD 880-37511/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	37511
890-3239-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	37511
890-3239-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	37511
890-3240-A-3-C MS	Matrix Spike	Soluble	Solid	300.0	37511
890-3240-A-3-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	37511

Lab Chronicle

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Client Sample ID: PH03
Date Collected: 10/19/22 12:00
Date Received: 10/20/22 09:58

Lab Sample ID: 890-3242-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	37911	10/26/22 14:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38089	10/29/22 02:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38188	10/30/22 21:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			37629	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/21/22 23:36	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	37598	10/23/22 21:23	CH	EET MID

Client Sample ID: PH03
Date Collected: 10/19/22 12:15
Date Received: 10/20/22 09:58

Lab Sample ID: 890-3242-2
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			5.02 g	5 mL	37911	10/26/22 14:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38089	10/29/22 02:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38188	10/30/22 21:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			37629	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/21/22 23:57	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	37598	10/23/22 21:28	CH	EET MID

Client Sample ID: PH03
Date Collected: 10/19/22 12:30
Date Received: 10/20/22 09:58

Lab Sample ID: 890-3242-3
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	37911	10/26/22 14:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	38089	10/29/22 02:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			38188	10/30/22 21:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			37629	10/24/22 09:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	37503	10/21/22 13:50	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	37444	10/22/22 00:18	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	37511	10/21/22 14:12	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	37598	10/23/22 21:33	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

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: Elvis Injection Line

Job ID: 890-3242-1
SDG: 03D2057011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3242-1	PH03	Solid	10/19/22 12:00	10/20/22 09:58	1'
890-3242-2	PH03	Solid	10/19/22 12:15	10/20/22 09:58	8'
890-3242-3	PH03	Solid	10/19/22 12:30	10/20/22 09:58	15'

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

www.xenco.com Page 1 of 1

Work Order No: _____

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

Work Order Comments

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

Project Name:	Elvis Injection Line	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057011	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Conner Shore		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TDM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.8
Total Containers:		Corrected Temperature:	3.6

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH03	S	10.19.22	1200	1'	G	1		X	X	X
PH03	S	10.19.22	1215	8'	G	1		X	X	X
PH03	S	10.19.22	1230	15'	G	1		X	X	X

890-3242 Chain of Custody

10 19 22

Sample Comments

Incident Number

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 CS	Amanda Stuyf	10/20/22 938	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3242-1
SDG Number: 03D2057011

Login Number: 3242
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: 890-3242-1
SDG Number: 03D2057011

Login Number: 3242
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 10/21/22 10:46 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	

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 15, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 12/12/23 14:04.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/12/2023	Sampling Date:	12/07/2023
Reported:	12/15/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SW 01 @ 0-4' (H236619-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/13/2023	ND	432	108	400	3.64	

Sample ID: SW 02 @ 0-4' (H236619-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/13/2023	ND	432	108	400	3.64	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC	**BILL TO** P.O. #:	
Project Manager:	Aimee Cole	Company:	A.A.
Address:	8122 Natl Parkstwy	Attn:	
City:	Carlsbad State: NM Zip: 88220	Address:	
Phone #:	Fax #:	City:	
Project #:	08D2057011 Project Owner: Maverick	State:	Zip:
Project Name:	Elvis injection line	Phone #:	
Project Location:	32.82086, -103.789382	Fax #:	
Sampler Name:	Julianna Faloomata		

FOR LAB USE ONLY

Lab I.D. H236619

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	SAMPLING TIME	Chlorides
1	SW07 @ 0-4'	C	1			X					X		12/7/23	1200	X
2	SW02 @ 0-4'	↓	↓			↓					↓		↓	1205	↓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12-12-23 Time: 14:04	Received By:	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 0.8°C Corrected Temp. °C	Sample Condition Cool Intact ☑ Yes ☐ Yes ☐ No ☐ No	CHECKED BY: (Initials)

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address:

acole@ensolum.com, rmayes@ensolum.com

REMARKS:

nAPP2236422290

Turnaround Time: Standard ☒ Rush ☐

Thermometer ID #140
Correction Factor 0°C

Bacteria (only) Sample Condition
Cool Intact
☐ Yes ☐ Yes
☐ No ☐ No
Observed Temp. °C
Corrected Temp. °C

FORM-006 R 3.4 07/11/23

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 18, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 12/13/23 15:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/13/2023	Sampling Date:	12/12/2023
Reported:	12/18/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Shalyn Rodriguez
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SW 03 @ 0-4' (H236664-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/14/2023	ND	432	108	400	0.00	

Sample ID: SW 04 @ 0-4' (H236664-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	12/14/2023	ND	432	108	400	0.00	

Sample ID: SS 01 @ 0.5' (H236664-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/14/2023	ND	432	108	400	0.00	

Sample ID: SS 02 @ 0.5' (H236664-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**880**	16.0	12/14/2023	ND	432	108	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/13/2023	Sampling Date:	12/13/2023
Reported:	12/18/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Shalyn Rodriguez
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SS 03 @ 0.5' (H236664-05)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	12/14/2023	ND	432	108	400	0.00	

Sample ID: SS 04 @ 0.5' (H236664-06)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1100**	16.0	12/14/2023	ND	432	108	400	3.77	

Sample ID: SS 05 @ 0.5' (H236664-07)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	12/14/2023	ND	432	108	400	3.77	

Sample ID: SS 06 @ 0.5' (H236664-08)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/14/2023	ND	432	108	400	3.77	

Sample ID: SS 07 @ 0.5' (H236664-09)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	12/14/2023	ND	432	108	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/13/2023	Sampling Date:	12/13/2023
Reported:	12/18/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Shalyn Rodriguez
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SS 08 @ 0.5' (H236664-10)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	12/14/2023	ND	432	108	400	3.77	

Sample ID: SS 09 @ 0.5' (H236664-11)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/14/2023	ND	432	108	400	3.77	

Sample ID: SS 10 @ 0.5' (H236664-12)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/14/2023	ND	432	108	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum LLC
Project Manager:	Ashee Cole
Address:	3122 National Parks Hwy
City:	Carlsbad State: NM Zip: 88220
Phone #:	720-384-7365 Fax #:
Project #:	03D2057011 Project Owner: Maverick
Project Name:	Elvis Injection Line
Project Location:	32.820368, -103.789382
Sampler Name:	Ronni Hayes.

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

Cl-

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Cl-
H23016964															
1	SW03 @ 0-4'	C	1			X					X		12/12/23	0920	X
2	SW04 @ 0-4'	C											12/13/23	1055	
3	SS01 @ 6.5'	G												1216	
4	SS02 @ 0.5'	G												1218	
5	SS03 @ 0.5'	G												1222	
6	SS04 @ 0.5'	G												1315	
7	SS05 @ 0.5'	G												1220	
8	SS06 @ 0.5'	G												1308	
9	SS07 @ 0.5'	G												1306	
10	SS08 @ 0.5'	G												1302	

Relinquished By:	Date: 12.13.23	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 542		All Results are emailed. Please provide Email address: acole@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)	Observed Temp. °C 5.02	Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐
Sampler - UPS - Bus - Other:	Corrected Temp. °C			Thermometer ID #140 Correction Factor 0°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No; Observed Temp. °C; Corrected Temp. °C

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CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum LLC
Project Manager:	Alex Cole
Address:	3122 National Parks Hwy
City:	Carlsbad State: NM Zip: 88220
Phone #:	720-384-7365 Fax #:
Project #:	03D2057011 Project Owner: Maverick
Project Name:	Ellis Injection Line
Project Location:	32.8203681, -103.789382
Sampler Name:	Ronni Flages

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl-
H23004604															
11	SS09 @0.5'	G	1			X					X		12/13/23	1318	X
12	SS10 @0.5'	G	1			X					X		↓	1310	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12-13-23	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1542		All Results are emailed. Please provide Email address: acole@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)	Observed Temp. °C	Sample Condition: Cool / Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☑ Rush ☐
Sampler - UPS - Bus - Other:	Corrected Temp. °C 5.4i	☑ Yes ☐ Yes ☐ No ☐ No		Thermometer ID #140 Correction Factor 0°C

Bacteria (only) Sample Condition: Cool / Intact ☐ Yes ☐ Yes ☐ No ☐ No — Observed Temp. °C — Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 19, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 12/15/23 11:03.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/15/2023	Sampling Date:	12/14/2023
Reported:	12/19/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Shalyn Rodriguez
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SW - 05 @ 0-4' (H236688-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/15/2023	ND	416	104	400	6.74	

Sample ID: SW - 06 @ 0-4' (H236688-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	12/15/2023	ND	416	104	400	6.74	

Sample ID: SW - 07 @ 0-4' (H236688-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	12/15/2023	ND	416	104	400	6.74	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum LLC
Project Manager: Alyssa Cole
Address: 3122 National Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 720-384-7395 Fax #:
Project #: 03D2057011 Project Owner: Mewbourne
Project Name: Elvis Injection Line
Project Location: 32.820368, -103.789382
Sampler Name: Ryan Hayes

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Cl
H23060881	SW05 @0-4'	C	1			X					X		12/14/23	0903	X
2	SW06 @0-4'	C	1			X					X		↓	0909	X
3	SW07 @0-4'	C	1			X					X		12/15/23	0917	X

RH

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Date: 12-15-23 Time: 1103 Received By: S Rodriguez
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
acole@ensolum.com
REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 2.2
Corrected Temp. °C
Sample Condition: Cool ☑ Yes Intact ☑ Yes ☐ No ☐ No
CHECKED BY: (Initials) SR

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #140
Correction Factor 0°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 21, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 12/19/23 11:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/19/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SS 11 @ 0.5' (H236746-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/20/2023	ND	416	104	400	3.77	

Sample ID: SS 12 @ 0.5' (H236746-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/20/2023	ND	416	104	400	3.77	

Sample ID: SS 13 @ 0.5' (H236746-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	12/20/2023	ND	416	104	400	3.77	

Sample ID: SS 14 @ 0.5' (H236746-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/20/2023	ND	416	104	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/19/2023	Sampling Date:	12/18/2023
Reported:	12/21/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SS 15 @ 0.5' (H236746-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/20/2023	ND	416	104	400	3.77	

Sample ID: SW 08 @ 0-4' (H236746-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/20/2023	ND	416	104	400	3.77	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum LLC
Project Manager:	Amee Cole
Address:	3122 National Parks Hwy
City:	Carlsbad State: NM Zip: 88220
Phone #:	720-384-7365 Fax #:
Project #:	03D2057011 Project Owner: Maverick
Project Name:	Elvis Injection Line
Project Location:	32.920368, -103.789382
Sampler Name:	Ronni Hayes

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl-
H236746															
1	SS11 @ 0.5'	G	1			x					x		12/18/23	0855	x
2	SS12 @ 0.5'	G												0905	
3	SS13 @ 0.5'	G												0920	
4	SS14 @ 0.5'	G												0924	
5	SS15 @ 0.5'	G												1120	
6	SW 68 @ 0-4'	C												1125	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12-19-23	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 7137		All Results are emailed. Please provide Email address: acole@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)	Observed Temp. °C 5.7	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☒ Rush ☐
Sampler - UPS - Bus - Other:	Corrected Temp. °C	☑ Yes ☑ Yes ☐ No ☐ No		Thermometer ID #140 Correction Factor 0°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No; Observed Temp. °C; Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 29, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 12/22/23 10:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/22/2023	Sampling Date:	12/22/2023
Reported:	12/29/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Shari Cisneros
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SW 10 @ 0-4' (H236823-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/28/2023	ND	432	108	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	Ensolum LLC	P.O. #:	
Project Manager:	Ashee Cole	Company:	
Address:	3122 National Parks Hwy	Attn:	
City:	Carlsbad State: NM Zip: 88220	Address:	
Phone #:	720 384 7365 Fax #:	City:	
Project #:	03D2057011 Project Owner: Maverick	State: Zip:	
Project Name:	Elvis Injection Line	Phone #:	
Project Location:	32.820368, -103.789382	Fax #:	
Sampler Name:	Ronni Hayes		

ANALYSIS REQUEST: Cl

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Cl
H236823-1	SW10 @ 0-4'	C	1			X					X		12/22/23	0845	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 12/22/23 Time: 10:55	Received By: Shani Cisneros	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address: acole@ensolum.com
			REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C Corrected Temp. °C 2.4	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) DC
Turnaround Time: ☐ Standard ☑ Rush	Thermometer ID #140 Correction Factor 0°C	Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No	Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

December 27, 2023

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 12/21/23 11:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	12/21/2023	Sampling Date:	12/20/2023
Reported:	12/27/2023	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SW 09 @ 0-4' (H236804-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/22/2023	ND	416	104	400	0.00	

Sample ID: SS 16 @ 0.5' (H236804-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/22/2023	ND	416	104	400	0.00	

Sample ID: SS 17 @ 0.5' (H236804-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/22/2023	ND	416	104	400	0.00	

Sample ID: SS 18 @ 0.5' (H236804-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/22/2023	ND	416	104	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum LLC
Project Manager: Ainee Cole
Address: 3122 National Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 720-384-7365 Fax #:
Project #: 03P2057011 Project Owner: Mavereick
Project Name: Elvis Injection Line
Project Location: 32.800368, -103.789382
Sampler Name: Ronni Hayes

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D. *	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL ✓	OTHER:	SAMPLING DATE	SAMPLING TIME	Cl-
H236804															
1	SW09 @ 0-4'	C	1			x					x		12/20/23	1600	X
2	SS16 @ 0.5'	G	1			x					x		12/21/23	0925	X
3	SS17 @ 0.5'	G	1			x					x		↓	0930	X
4	SS18 @ 0.5'	G	1			x					x		↓	0935	X

Relinquished By: Date: 12.21.23 Time: 1115 Received By:
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
aeole@ensolum.com

REMARKS:
* Customer requested Depth change. 12/21/23

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:
Observed Temp. °C 5.0
Corrected Temp. °C
Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No
CHECKED BY: (Initials)

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #140
Correction Factor 0°C
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

FORM-006 R 3.4 07/11/23

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 04, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/03/24 12:51.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	01/03/2024	Sampling Date:	01/03/2024
Reported:	01/04/2024	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Shalyn Rodriguez
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SS 02 1' (H240026-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	01/04/2024	ND	448	112	400	3.51	

Sample ID: SS 04 1' (H240026-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	01/04/2024	ND	448	112	400	3.51	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Ensolum, LLC	BILL TO
Project Manager: Aimee Cole	P.O. #:
Address: 3122 National Parks Hwy	Company:
City: Carlsbad State: NM Zip: 88220	Attn:
Phone #: 720-384-7365 Fax #:	Address:
Project #: 03D2057011 Project Owner: Mewbourne	City:
Project Name: Elvis Injection Line	State: Zip:
Project Location: 32.820368, -103.789382	Phone #:
Sampler Name: Ronni Hayes	Fax #:

FOR LAB USE ONLY					MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE *	TIME	BTEX
H2400269																
1	SS02	1'	G	1			X					X		1/3/24	0950	X
2	SS04	1'	G	1			X					X		↓	0958	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 1.3.24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 1251		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	acole@ensolum.com
	Time:		REMARKS: * Customer requested Date changes. TO - 1/3/24

Delivered By: (Circle One)	Observed Temp. °C	Sample Condition	CHECKED BY:	Turnaround Time: Standard ☒ Rush ☐
Sampler - UPS - Bus - Other:	Corrected Temp. °C 3.2c	Cool: ☐ Yes ☐ No Intact: ☒ Yes ☐ No	(Initials)	Thermometer ID #113 Correction Factor -0.5°C #140

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 08, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/04/24 12:36.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	01/04/2024	Sampling Date:	01/04/2024
Reported:	01/08/2024	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SW 11 0-4' (H240034-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	01/05/2024	ND	432	108	400	3.64	

Sample ID: SW 12 0-4' (H240034-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**352**	16.0	01/05/2024	ND	432	108	400	3.64	

Sample ID: SS 19 0.5' (H240034-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/05/2024	ND	432	108	400	3.64	

Sample ID: SS 20 0.5' (H240034-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	01/05/2024	ND	432	108	400	3.64	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	01/04/2024	Sampling Date:	01/04/2024
Reported:	01/08/2024	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SS 21 0.5' (H240034-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/05/2024	ND	432	108	400	3.64	

Sample ID: SS 22 0.5' (H240034-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/05/2024	ND	432	108	400	3.64	

Sample ID: SS 23 0.5' (H240034-07)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/05/2024	ND	432	108	400	3.64	

Sample ID: SS 24 0.5' (H240034-08)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	01/05/2024	ND	432	108	400	3.64	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC
Project Manager: Aimee Cole
Address: 3122 National Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 720 304 7365 Fax #:
Project #: 03D2057011 Project Owner: Maverick
Project Name: Elvis Injection Line
Project Location: 32.820368, -103.789382
Sampler Name: Bonni Hayes

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Cl-
H240034																
1	SW11	0-4'	C	1			x					x		1/4/24	0915	x
2	SW12	0-4'	C	1			x					x		1/4/24	0945	x
3	SS19	0.5'	G	1			x					x		1/4/24	1028	x
4	SS20	↓	↓	1			x					x		1/4/24	1048	x
5	SS21	↓	↓	1			x					x		1/4/24	1030	x
6	SS22	↓	↓	1			x					x		1/4/24	1031	x
7	SS23	↓	↓	1			x					x		1/4/24	1037	x
8	SS24	↓	↓	1			x					x		1/4/24	1045	x

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Date: 1-4-24 Time: 1236 Received By: Jamara Oldaker
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address: acole@ensolum.com
REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 3.4
Corrected Temp. °C
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) T.O.
Turnaround Time: Standard ☑ Rush ☐
Thermometer ID ~~#113~~ #140
Correction Factor ~~0.5°C~~ T.O. 1/4/24
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No
Observed Temp. °C
Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

Form-006 R 3.2 10/07/21

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 10, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/09/24 8:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	01/09/2024	Sampling Date:	01/08/2024
Reported:	01/10/2024	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: PH 03 0.5' (H240074-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**576**	16.0	01/09/2024	ND	432	108	400	0.00	

Sample ID: PH 03 4' (H240074-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	01/09/2024	ND	432	108	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC
Project Manager: Aimee Cole
Address: 3122 National Parks Hwy
City: Carlsbad State: NM Zip: 88220
Phone #: 720-384-7365 Fax #:
Project #: 03D2057011 Project Owner: Mewbourne
Project Name: Elvis Injection Line
Project Location: 32.8203688, -103.789382
Sampler Name: Rami Hyder

BILL TO
P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Cl
H24000 74																
1	PH03	0.5'	G	1			X					X		1/8/24	1143	X
2	PH03	4'	G	1			X					X		↓	1150	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Date: 1-9-24 Time: 0852 Received By:
Relinquished By: Date: Time: Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address: acole@ensolum.com
REMARKS:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 1.0 Corrected Temp. °C
Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No
CHECKED BY: (Initials) TO

Turnaround Time: Standard ☑ Rush ☐
Thermometer ID #140 Correction Factor -0.5°C #140 TO 1/9/24
Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 10, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/05/24 15:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	01/05/2024	Sampling Date:	01/05/2024
Reported:	01/10/2024	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Dionica Hinojos
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: PH02 13' (H240055-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	01/08/2024	ND	448	112	400	0.00	

Sample ID: SW13 0-4' (H240055-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	01/08/2024	ND	448	112	400	0.00	

Sample ID: SW14 0-4' (H240055-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**272**	16.0	01/08/2024	ND	448	112	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	BILL TO
Project Manager: Aimee Cole	P.O. #:
Address: 3122 National Parks Hwy	Company:
City: Carlsbad State: NM Zip: 88220	Attn:
Phone #: 720-384-7365 Fax #:	Address:
Project #: 03D2057011 Project Owner: Devon Energy	City:
Project Name: Elvis Injection Line	State: Zip:
Project Location: 32.8203688, -103.789382	Phone #:
Sampler Name: Ronn Hayes	Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl-
H240055																
1	PH02	13'	G	1			X					X		1/5/24	1015	X
2	SW13	0-4'	C	1			X					X		1/5/24	1241	X
3	SW14	0-4'	C	1			X					X		1/5/24	1245	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 1/5/24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 15:37		All Results are emailed. Please provide Email address: acole@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 36	Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No	CHECKED BY: (Initials)	Turnaround Time: Standard ☒ Rush ☐
	Corrected Temp. °C #140			Thermometer ID #113 Correction Factor -0.5°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No; Observed Temp. °C; Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 10, 2024

AIMEE COLE

ENSOLUM

3122 NATIONAL PARKS HWY

CARLSBAD, NM 88220

RE: ELVIS INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/09/24 8:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM
AIMEE COLE
3122 NATIONAL PARKS HWY
CARLSBAD NM, 88220
Fax To:

Received:	01/09/2024	Sampling Date:	01/08/2024
Reported:	01/10/2024	Sampling Type:	Soil
Project Name:	ELVIS INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	03D2057011	Sample Received By:	Tamara Oldaker
Project Location:	MAVERICK 32.820368, -103.789382		

Sample ID: SW 15 0-4' (H240075-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	01/09/2024	ND	432	108	400	0.00	

Sample ID: SW 16 0-4' (H240075-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	01/09/2024	ND	432	108	400	0.00	

Sample ID: PH 01 14' (H240075-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	01/09/2024	ND	432	108	400	0.00	

Sample ID: SS 25 0.5' (H240075-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	01/09/2024	ND	432	108	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Ensolum, LLC	BILL TO
Project Manager: Anne Cole	P.O. #:
Address: 3122 National Parks Hwy	Company:
City: Carlsbad State: NM Zip: 88220	Attn:
Phone #: 720-384-7365 Fax #:	Address:
Project #: 03D2057011 Project Owner: Maverick	City:
Project Name: Elvis Injection Line	State: Zip:
Project Location: 32.8203685, -103.7893822	Phone #:
Sampler Name: Bonni Hayes	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl-
H240075																
1	SW15	0-4'	C	1			X					X		1/8/24	1114	X
2	SW16	0-4'	C	1			X					X		1/8/24	1116	X
3	PH01	14'	G	1			X					X		1/8/24	1118	X
4	SS25	0-5'	G	1			X					X		1/8/24	1140	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 1-9-24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 0852		All Results are emailed. Please provide Email address: acole@ensolum.com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 1.0 Corrected Temp. °C	Sample Condition Cool: Yes / No Intact: Yes / No	CHECKED BY: (Initials)	Turnaround Time: Standard ☒ Rush ☐ Thermometer ID #113 #140 Correction Factor -0.5°C 1/9/24

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Wells, Shelly, EMNRD
To: Aimee Cole
Cc: Velez, Nelson, EMNRD; Bratcher, Michael, EMNRD
Subject: RE: [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 11/27/2023)
Date: Wednesday, November 22, 2023 1:19:37 PM
Attachments: image001.png
image002.png
image003.png
image004.png

[**EXTERNAL EMAIL**]

Hi Aimee,

The OCD has received your notification. 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.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Aimee Cole <acole@ensolum.com>
Sent: Wednesday, November 22, 2023 12:43 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 11/27/2023)

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

Maverick Permian, LLC plans to complete sampling activities at the following sites the week of November 27, 2023.

- EVGSAU Sat 6 Mobile Tester / NAPP2304744550
  - Sampling Dates: 11/27/2023 – 11/28/2023 (between 9:00 am and 3:00 pm MT)

- Elvis Injection Line / NAPP2213642290
  - Sampling Dates: 11/29/2023 – 12/1/2023 (between 9:00 am and 3:00 pm MT)

Thank you,

Aimee Cole
Senior Managing Scientist
720-384-7365
Ensolum, LLC

From: Wells, Shelly, EMNRD
To: Aimee Cole
Cc: Velez, Nelson, EMNRD; Bratcher, Michael, EMNRD
Subject: RE: [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 12/4/2023)
Date: Wednesday, November 29, 2023 2:52:15 PM
Attachments: image001.png
image002.png
image003.png
image004.png

[**EXTERNAL EMAIL**]

Good afternoon Aimee,

The OCD has received your notification. 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.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520|Shelly.Wells@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

From: Aimee Cole <acole@ensolum.com>
Sent: Wednesday, November 29, 2023 2:41 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick Permian, LLC - Sampling Notification (Week of 12/4/2023)

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

Maverick Permian, LLC plans to complete sampling activities at the following sites the week of December 4th, 2023.

- Jalmat 188 / NAPP2235373931
  - Sampling Dates: 12/6/2023 – 12/8/2023 (between 9:00 am and 3:00 pm MT)

- Elvis Injection Line / NAPP2213642290
  - Sampling Dates: 12/4/2023 – 12/8/2023 (between 9:00 am and 3:00 pm MT)

Thank you,

Aimee Cole
Senior Managing Scientist
720-384-7365
Ensolum, LLC

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 291740
Date: Wednesday, December 6, 2023 11:12:01 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/11/2023 @ 10:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Call 903-227-9483 to contact the scheduled sampler.

Additional Instructions: 32.820436, -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 292787
Date: Friday, December 8, 2023 1:51:54 PM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/12/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Sidewalls samples will be collected every 200 square feet. Per the approved work plan, floor samples will only be collected in areas where the excavation is shallower than 4 ft deep. No floor samples will be collected at depths of 4 feet or greater. Call 903-227-9483 to contact the scheduled sampler.
Excavation and confirmation sampling will continue from Dec 11, 2023 through Dec 22, 2023 between the hours of 9:00 am and 3:00 PM.

Additional Instructions: 32.820436, -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 293248
Date: Monday, December 11, 2023 3:13:01 PM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/13/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365.

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 293253
Date: Monday, December 11, 2023 3:19:51 PM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/14/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365.

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 294114
Date: Wednesday, December 13, 2023 10:33:27 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/15/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365.

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 294116
Date: Wednesday, December 13, 2023 10:35:50 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/18/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365.

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 295762
Date: Monday, December 18, 2023 12:50:57 PM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/20/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365.

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 295763
Date: Monday, December 18, 2023 12:53:01 PM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/21/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365.

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 295765
Date: Monday, December 18, 2023 12:54:23 PM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 12/22/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365.

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 298780
Date: Tuesday, January 2, 2024 9:26:47 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 01/03/2023 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 298784
Date: Tuesday, January 2, 2024 9:29:15 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 01/04/2024 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Contact Aimee Cole at 720-384-7365

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Aimee Cole
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 298788
Date: Tuesday, January 2, 2024 9:32:25 AM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Aimee Cole for Maverick Permian LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2213642290.

The sampling event is expected to take place:

When: 01/05/2024 @ 09:00
Where: F-20-17S-32E 0 FNL 0 FEL (32.820368,-103.789382)

Additional Information: Aimee Cole at 720-384-7365

Additional Instructions: 32.820436 -103.789386

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

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

From: OCDOnline@state.nm.us
To: Kalei Jennings
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 170836
Date: Tuesday, January 24, 2023 2:09:29 PM

[**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#) nAPP2213642290, 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: OCDOnline@state.nm.us
To: Kalei Jennings
Subject: The Oil Conservation Division (OCD) has rejected the application, Application ID: 155448
Date: Monday, November 28, 2022 3:57:33 PM

[**EXTERNAL EMAIL**]

To whom it may concern (c/o Kalei Jennings for Maverick Permian LLC),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2213642290,
for the following reasons:

- **Remediation Plan Denied. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater. Release has not been adequately delineated. Please resubmit a revised Remediation Plan to the OCD portal by December 28, 2022.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 155448.
Please review and make the required correction(s) prior to resubmitting.
If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

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

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Santa Fe, NM 87505

QUESTIONS

Action 315216

QUESTIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 315216
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2213642290**
Incident Name	**NAPP2213642290 ELVIS INJECTION LINE @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Reclamation Report Received**
Incident Facility	**[fGRL0822131454] ELVIS BATTERY**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	ELVIS INJECTION LINE
Date Release Discovered	05/04/2022
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Corrosion | Flow Line - Injection | Produced Water | Released: 30 BBL | Recovered: 1 BBL | Lost: 29 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 315216
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 02/16/2024

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QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 315216
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	8760
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	12/07/2023
On what date will (or did) the final sampling or liner inspection occur	01/08/2024
On what date will (or was) the remediation complete(d)	01/08/2024
What is the estimated surface area (in square feet) that will be reclaimed	6000
What is the estimated volume (in cubic yards) that will be reclaimed	1500
What is the estimated surface area (in square feet) that will be remediated	6000
What is the estimated volume (in cubic yards) that will be remediated	1500
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 315216
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	R360 Artesia LLC LANDFARM [fEEM0112340644]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 02/16/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 315216
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 315216
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**298788**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**01/05/2024**
What was the (estimated) number of samples that were to be gathered	**3**
What was the sampling surface area in square feet	**500**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	6000
What was the total volume (cubic yards) remediated	1500
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	6000
What was the total volume (in cubic yards) reclaimed	1500
Summarize any additional remediation activities not included by answers (above)	Excavation and soil sampling activities were completed as outlined in the approved Remediation Work Plan for this site.

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 (in .pdf format) 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.

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.

I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 02/16/2024

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QUESTIONS (continued)

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 315216
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	6000
What was the total volume of replacement material (in cubic yards) for this site	1500
Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	01/12/2024
Summarize any additional reclamation activities not included by answers (above)	The excavation was backfilled and seeded with a BLM approved seed mix. Vegetation monitoring will be completed on an annual basis (at a minimum) until vegetation establishment is comparable to off-site conditions. Photographs of the backfilled excavation are provided in Appendix C.
The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.	
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.	
I hereby agree and sign off to the above statement	Name: Aimee Cole Email: acole@ensolum.com Date: 02/16/2024

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QUESTIONS (continued)

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QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

Action 315216

CONDITIONS

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	Action Number: 315216
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CONDITIONS

Created By	Condition	Condition Date
nvelez	None	4/10/2024