ENSOLUM

February 17, 2023

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

Re: Closure Request
Jalmat Yates Sand Unit 170
Incident Number NAPP2233946698
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Jalmat Yates Sand Unit 170 (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impairment to soil resulting from a release of crude oil and produced water. 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 NAPP2233946698.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit H, Section 14, Township 22 South, Range 33 East, in Lea County, New Mexico (32.39512°, -103.33486°) and is associated with oil and gas exploration and production operations on private property.

On November 20, 2022, a flowline ruptured and resulted in the release of approximately 1.92 barrels (bbls) of crude oil and 7.7 bbls of produced water into the surrounding pasture. Released fluids were not recovered. The release occurred off pad and was attributed to internal corrosion of the flowline. The affected area was immediately secured and saturated soil was removed. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on November 30, 2022. The release was assigned Incident Number NAPP2233946698.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of State Engineer (NMOSE) well CP-00753, located approximately 1,178 feet northeast of the Site. The groundwater well has a reported depth to

groundwater of 185 feet bgs and a total depth of 215 feet bgs. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well record is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a freshwater pond, located approximately 2,008 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is 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 pasture areas that will be reclaimed following remediation, per 19.15.29.13.D (1) NMAC.

SITE ASSESSMENT AND EXCAVATION ACTIVITIES

On December 15, 2022, Ensolum personnel were at the Site to conduct assessment activities including verifying the initial clean up of saturated soil had been completed by Maverick operations, and evaluate Site work. Approximately 100 cubic yards of saturated soil were removed prior to Ensolum personnel visting the Site. The release extent was mapped using a handheld Global Positioning System (GPS) unit and is depicted on Figure 2.

Between January 6 and February 7, 2023, Ensolum personnel were on Site to oversee and direct excavation activities based on field screening activities. Excavation activities were performed via backhoe to a depth of approximately 2.5 feet bgs. To direct excavation activities, soil was field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride utilizing Hach® chloride QuanTab® test strips. Photographic documentation of excavation activities is included in Appendix B.

Following removal of waste-containing soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. Excavation composite soil samples (FS01 through FS34) and excavation sidewall samples (SW01 through SW06) were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. The excavation extent and excavation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 3.

Laboratory analytical results for confirmation samples FS06, FS14, and SW06 indicated TPH and/or chloride concentrations exceeded the reclamation requirement. Additional excavation in the vicinity of these confirmation samples appeared warranted to address residual waste-containing soil. Additional soil was removed in the vicinity of those confirmation sample areas not meeting the reclamation requirement and subsequent samples FS06A, FS14A, and SW07 were collected. The excavation soil samples were collected, handled, and analyzed as described above. The final excavation extent and excavation soil sample locations are depicted on Figure 3.

The excavation measured approximately 6,800 square feet in areal extent. A total of approximately 320 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 in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for the final excavation floor samples FS01 through FS05, FS06A, FS07 through FS13, FS14A, and FS15 through FS34 and sidewall soil samples SW01 through SW05, and SW07 indicated benzene, all COC concentrations were compliant with the Site Closure Criteria and compliant with the reclamation requirements. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

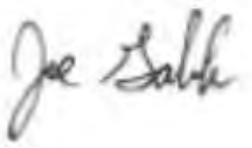
CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the November 2022 release of crude oil and produced water. Laboratory analytical results for the final excavation soil samples indicated all concentrations were compliant with the Site Closure Criteria and reclamation requirements. Additionally, the release was laterally delineated to the most stringent Table I Closure Criteria. Based on the soil sample analytical results, no further remediation was required. Maverick will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

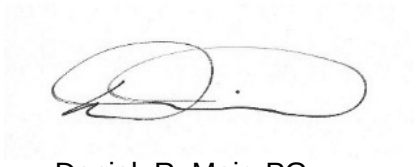
Excavation of waste-containing soil has mitigated impacts at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no sensitive receptors were identified near the release extent. Maverick believes these remedial actions are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAPP2233946698. The Final C-141 is included in Appendix D.

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

Sincerely,
Ensolum, LLC



Joe Gable, PG
Project Manager



Daniel, R. Moir, PG
Senior Managing Geologist

cc: Bryce Wagoner, Maverick Natural Resources
Bradley Blevins, Landowner

Appendices:

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

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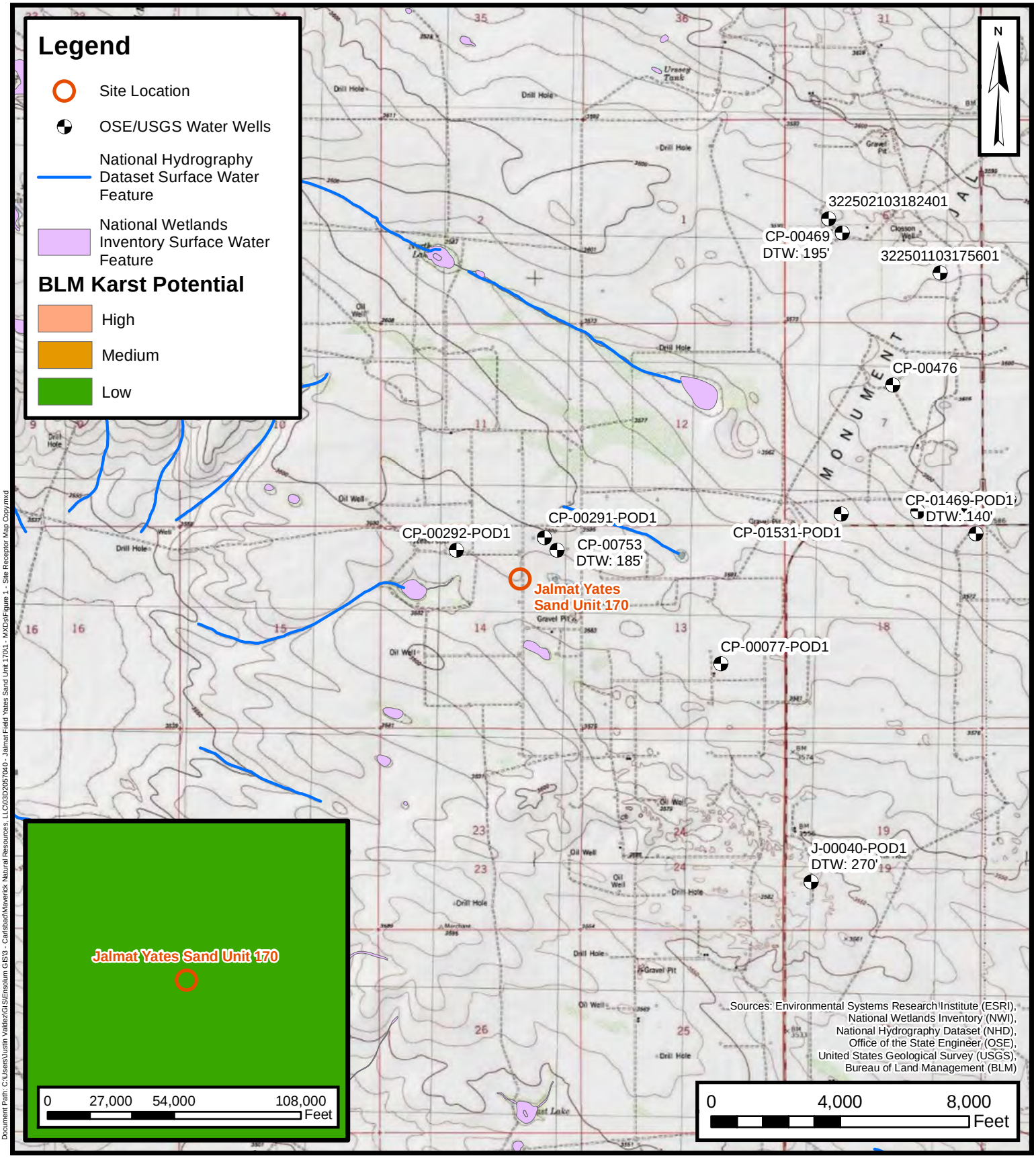
FIGURES



Document Path: C:\Users\Dustin Valdez\GIS\Ensolum GIS\3 - Carlsbad\Maverick Natural Resources, LLC\03D2057040 - Jalmat Field Yates Sand Unit 170\1 - MXDs\Figure 1 - Site Receptor Map Copy.mxd

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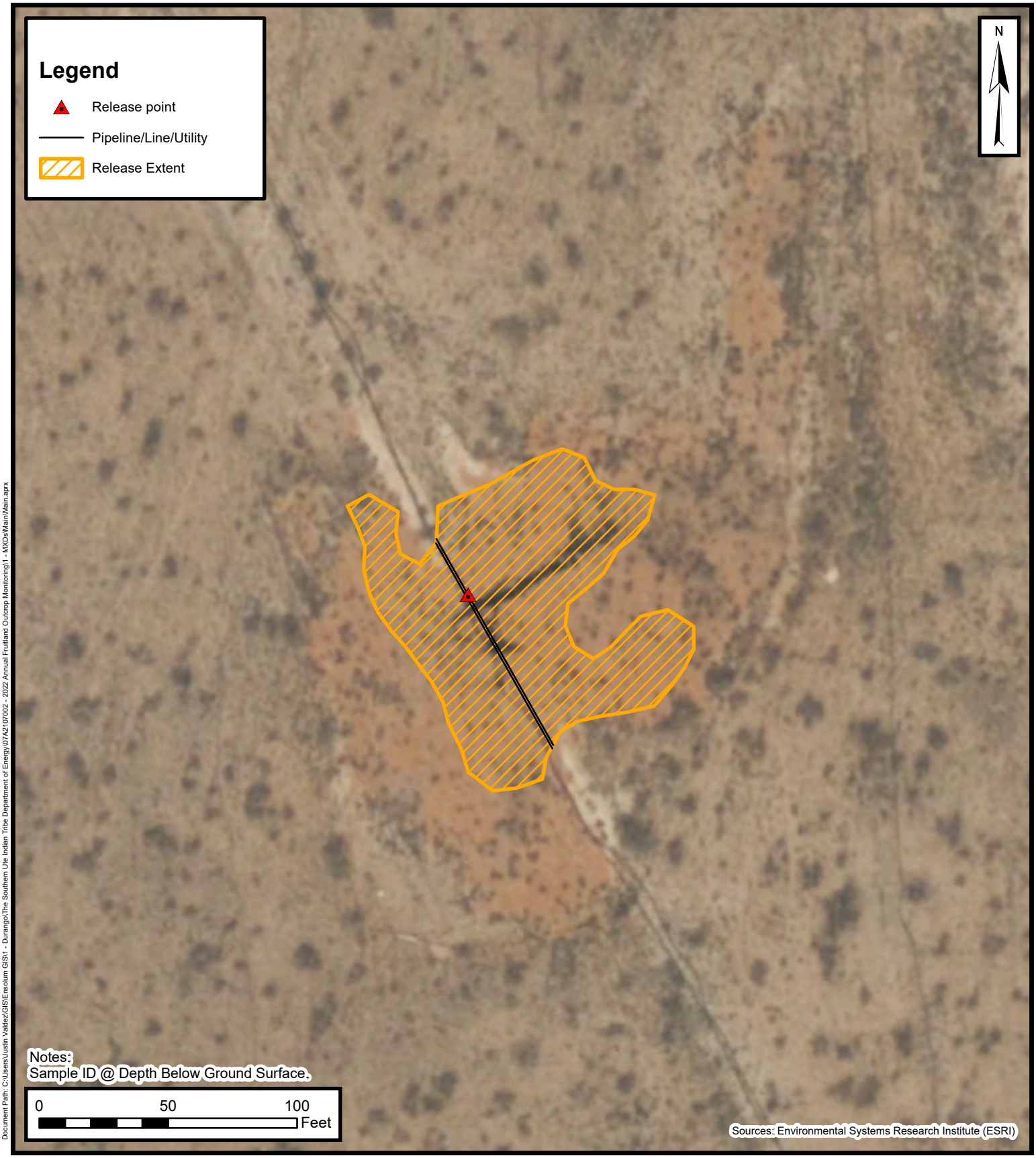
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Maverick Permian, LLC
Jalmat Yates Sand Unit 170
Incident Number: NAPP2233946698
Unit H, Sec 14, T22S, R35E
Lea County, New Mexico

FIGURE
1



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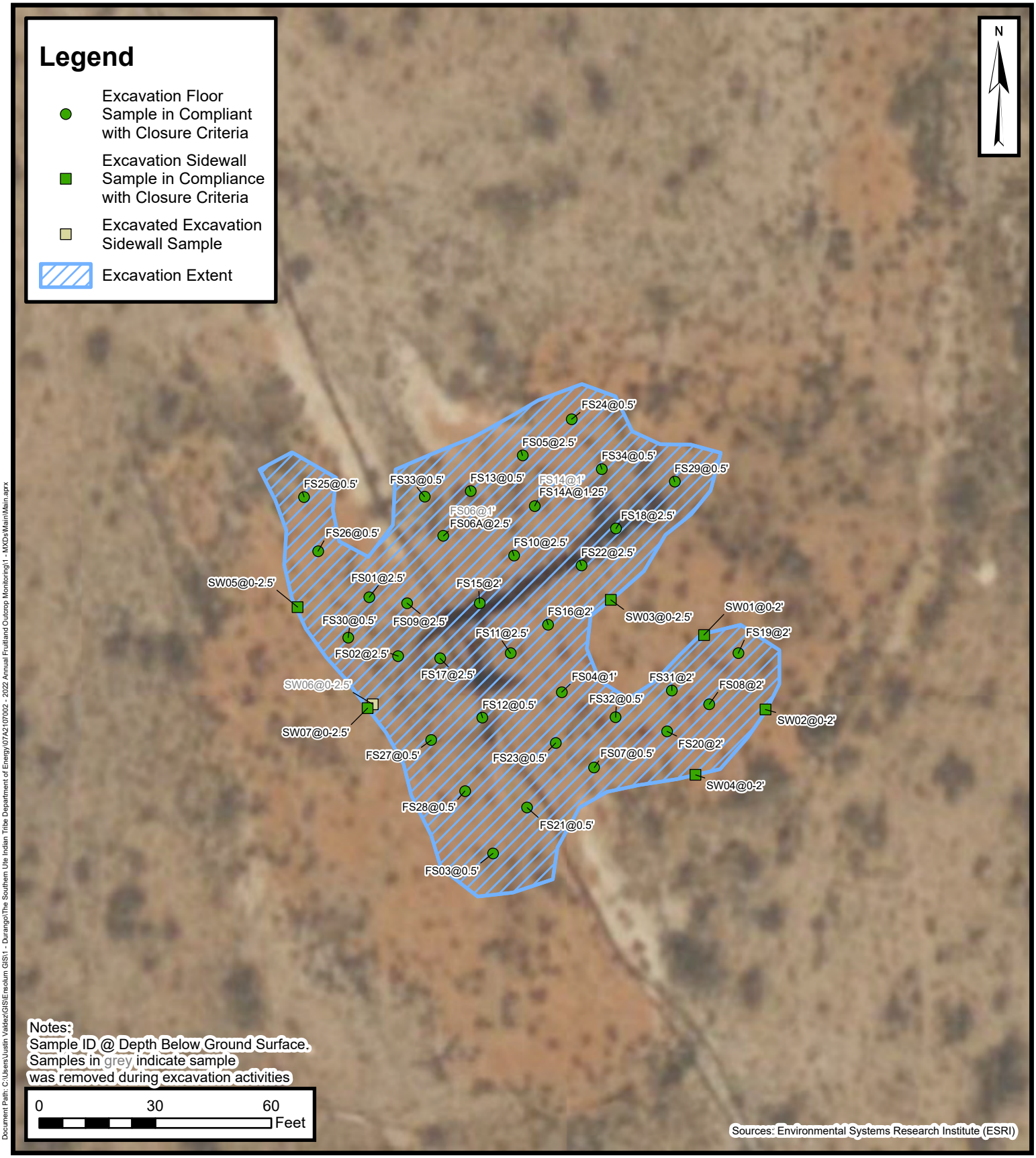
Environmental, Engineering and Hydrogeologic Consultants

Release Extent Map

Maverick Permian, LLC
Jalmat Yates Sand Unit 170
Incident Number: NAPP2233946698
Unit H, Sec 14, T22S, R35E
Lea County, New Mexico

FIGURE
2



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Excavation Soil Sample Locations

Maverick Permian, LLC
Jalmat Yates Sand Unit 170
Incident Number: NAPP2233946698
Unit H, Sec 14, T22S, R35E
Lea County, New Mexico

FIGURE
3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Jalmat Yates Sand Unit 170
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
Excavation Floor Samples										
FS01	01/18/2023	2.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	366*
FS02	01/18/2023	2.5	<0.00199	<0.00398	<49.9	<49.9	49.9	<49.9	<49.9	379*
FS03	12/15/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	11.8*
FS04	01/06/2023	1	<0.00199	0.00579	<50.0	81.7	<50.0	81.7	81.7	543*
FS05	01/18/2023	2.5	<0.00202	<0.00404	<50.0	<49.9	<49.9	<49.9	<49.9	373*
~~FS06~~	~~01/06/2023~~	~~1~~	~~<0.00201~~	~~<0.00402~~	~~<50.0~~	~~543~~	~~83.5~~	~~543~~	~~627~~	~~1,460*~~
FS06A	01/18/2023	2.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	132*
FS07	12/15/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5.17*
FS08	12/15/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	50.2*
FS09	01/18/2023	2.5	<0.00202	<0.00403	<49.9	54.8	<49.9	54.8	54.8	156*
FS10	01/18/2023	2.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	439*
FS11	01/18/2023	2.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	57.1*
FS12	01/18/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	14.1*
FS13	01/18/2023	0.5	<0.00198	<0.00397	<50.0	68.7	23.8	92.5	92.5	127*
~~FS14~~	~~01/06/2023~~	~~1~~	~~<0.00199~~	~~<0.00398~~	~~<49.8~~	~~953~~	~~125~~	~~953~~	~~1,080~~	~~428*~~
FS14A	02/07/2023	1.25	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	84.1*
FS15	01/06/2023	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	286*
FS16	01/06/2023	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	459*
FS17	01/18/2023	2.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	345*
FS18	01/18/2023	2.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	393*
FS19	01/18/2023	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	7.31*
FS20	01/18/2023	2	<0.00200	<0.00401	<49.9	76.3	<49.9	76.3	76.3	41.2*
FS21	01/18/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9*
FS22	01/18/2023	2.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	474*
FS23	01/18/2023	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	12.3*
FS24	01/18/2023	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	<4.96*
FS25	01/18/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.98*

~~FS26~~	~~01/18/2023~~	~~0.5~~	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	~~394*~~
FS27	01/18/2023	0.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	13.2*
FS28	01/18/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	99.6*
FS29	01/18/2023	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	<5.05*
FS30	01/18/2023	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	<5.00*
FS31	01/18/2023	2	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	71.7*
FS32	01/18/2023	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	5.05*
FS33	01/18/2023	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97*
FS34	01/18/2023	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	<4.99*
Excavation Sidewall Samples										
SW01	01/19/2023	0 - 2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	87.8*
SW02	01/19/2023	0 - 2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	36.3*
SW03	01/19/2023	0 - 2.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	363*
SW04	01/19/2023	0 - 2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	41.5*
SW05	01/19/2023	0 - 2.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	69.7*
~~SW06~~	~~01/19/2023~~	~~0 - 2.5~~	~~<0.00201~~	~~<0.00402~~	~~221~~	~~<50.0~~	~~<50.0~~	~~<50.0~~	~~**221**~~	~~109*~~
SW07	02/07/2023	0 - 2.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	79.8*

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

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

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

Grey text represents samples that have been excavated

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APPENDIX A

Referenced Well Records

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Twn	Rng	(NAD83 UTM in meters) X	Y
	CP 00753	2	2		14	22S	35E	656891	3585687*

Driller License:	208	**Driller Company:**	VAN NOY, W.L.		
Driller Name:	VAN NOY, W.L.				
Drill Start Date:	07/11/1990	**Drill Finish Date:**	07/18/1990	**Plug Date:**	
Log File Date:	07/23/1990	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	23 GPM
Casing Size:	5.00	**Depth Well:**	215 feet	**Depth Water:**	185 feet

Water Bearing Stratifications:	Top	Bottom	Description
	195	210	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	201	211

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

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

475984

Section 1. GENERAL INFORMATION

(A) Owner of well Merchant Livestock Company Owner's Well No. _____

Street or Post Office Address Box 1115

City and State Eunice, NM 88231

Well was drilled under Permit No. CP-753 and is located in the:

a. _____ ¼ _____ ¼ NE ¼ NE ¼ of Section 14 Township 22S Range 35 N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____

Subdivision, recorded in _____ Lea _____ County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor W. D. VanNoy License No. WD_208

Address P.O. Box 7 , Oil Center, NM 88266

Drilling Began 7-11-90 Completed 7-18-90 Type tools Cable Size of hole 10 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 215 ft.

Completed well is XXXX shallow ☐ artesian. Depth to water upon completion of well 185 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
195	210	15	water bearing sand	23

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5"	PVC		0	215			201	211

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

'90 SEP 7 AM 10 02
STATE ENGINEER OFFICE
SANTA FE, NEW MEXICO

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____

State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received July 23, 1990

Quad _____ FWL _____ FSL _____

File No. CP-753 Use STOCK Location No. 22.35.14.22131

Section 6. LOG OF HOLE

Depth in Feet		Thickness in Feet	Color and Type of Material Encountered
From	To		
0	10	10	Top Soil
10	100	90	Caliche
100	195	95	Sandy caliche
195	210	15	Water bearing sand
210	215	5	Red Bed

Section 7. REMARKS AND ADDITIONAL INFORMATION

'90 JUL 23 AM 8 31
STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO

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

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

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APPENDIX B

Photographic Log

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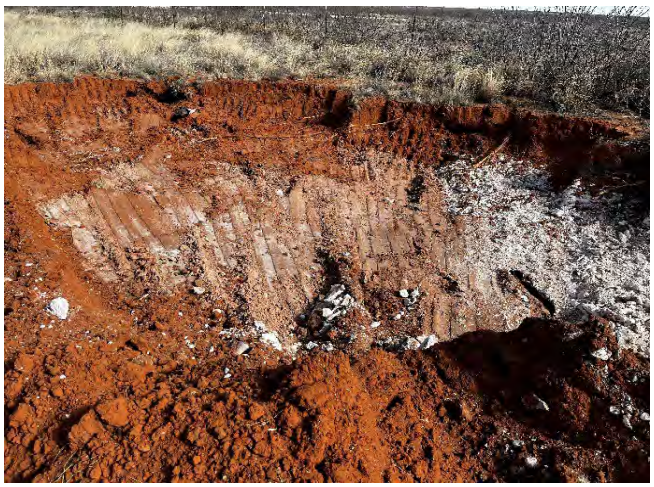
Photographic Log
Maverick Permian, LLC
Jalmat Yates Sand Unit 170
Lea County, New Mexico

Photograph: 1 Date: 11/30/2022
Description: Initial soil stain
View: Northwest

Photograph: 2 Date: 1/10/2023
Description: Excavation activities
View: South

Photograph: 3 Date: 1/20/2023
Description: Excavation activities
View: Southeast



Photograph: 4 Date: 1/20/2023
Description: Excavation activities
View: Northwest

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APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

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JOB DESCRIPTION

Jalmat Yates Sand Unit #170
SDG NUMBER Lea County NM

JOB NUMBER

890-3809-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

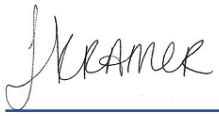
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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2/3/2023 11:19:15 AM
Revision 1

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

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Laboratory Job ID: 890-3809-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Job ID: 890-3809-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3809-1

REVISION

The report being provided is a revision of the original report sent on 1/17/2023. The report (revision 1) is being revised due to Per client email, requesting chloride re run.

Report revision history

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

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: FS16 (890-3809-1).

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

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

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

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-43792 and analytical batch 880-43924 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-45098 and analytical batch 880-45287 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: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Client Sample ID: FS16

Date Collected: 01/06/23 13:45
Date Received: 01/10/23 09:05
Sample Depth: 2

Lab Sample ID: 890-3809-1

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		01/13/23 13:36	01/16/23 21:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 21:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 21:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/13/23 13:36	01/16/23 21:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 21:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/13/23 13:36	01/16/23 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*01/13/23 13:36*	*01/16/23 21:05*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/13/23 13:36*	*01/16/23 21:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/17/23 14:44	1

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

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

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/12/23 11:42	01/12/23 22:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/12/23 11:42	01/12/23 22:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/12/23 11:42	01/12/23 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*01/12/23 11:42*	*01/12/23 22:16*	*1*
o-Terphenyl	*116*		*70 - 130*	*01/12/23 11:42*	*01/12/23 22:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**459**		4.98		mg/Kg			02/03/23 09:02	1

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3808-A-1-D MS	Matrix Spike	111	102
890-3808-A-1-E MSD	Matrix Spike Duplicate	112	103
890-3809-1	FS16	114	104
LCS 880-43748/1-A	Lab Control Sample	111	100
LCSD 880-43748/2-A	Lab Control Sample Dup	112	105
MB 880-43748/5-A	Method Blank	112	100
MB 880-43960/8	Method Blank	110	99

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-3804-A-1-F MS	Matrix Spike	96	100
890-3804-A-1-G MSD	Matrix Spike Duplicate	98	102
890-3809-1	FS16	101	116
LCS 880-43804/2-A	Lab Control Sample	106	107
LCSD 880-43804/3-A	Lab Control Sample Dup	122	121
MB 880-43804/1-A	Method Blank	144 S1+	154 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43748/5-A
Matrix: Solid
Analysis Batch: 43960

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43748

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/13/23 13:36	01/16/23 19:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*01/13/23 13:36*	*01/16/23 19:34*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/13/23 13:36*	*01/16/23 19:34*	*1*

Lab Sample ID: LCS 880-43748/1-A
Matrix: Solid
Analysis Batch: 43960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43748

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1121		mg/Kg		112	70 - 130		
Toluene			0.100	0.1077		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1052		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2165		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1024		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-43748/2-A
Matrix: Solid
Analysis Batch: 43960

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43748

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1159		mg/Kg		116	70 - 130	3	35
Toluene			0.100	0.1086		mg/Kg		109	70 - 130	1	35
Ethylbenzene			0.100	0.1066		mg/Kg		107	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2192		mg/Kg		110	70 - 130	1	35
o-Xylene			0.100	0.1045		mg/Kg		105	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-3808-A-1-D MS
Matrix: Solid
Analysis Batch: 43960

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.101	0.09870		mg/Kg		98	70 - 130		
Toluene	<0.00200	U	0.101	0.09623		mg/Kg		95	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

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

Lab Sample ID: 890-3808-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43960 — **Prep Batch: 43748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.101	0.09472		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.202	0.1946		mg/Kg		96	70 - 130
o-Xylene	<0.00200	U	0.101	0.09494		mg/Kg		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3808-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43960 — **Prep Batch: 43748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1006		mg/Kg		101	70 - 130	2	35
Toluene	<0.00200	U	0.0996	0.09733		mg/Kg		98	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.0996	0.09546		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1956		mg/Kg		98	70 - 130	1	35
o-Xylene	<0.00200	U	0.0996	0.09472		mg/Kg		95	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: MB 880-43960/8 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43960

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			01/16/23 12:24	1
Toluene	<0.00200	U	0.00200	mg/Kg			01/16/23 12:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			01/16/23 12:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			01/16/23 12:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			01/16/23 12:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			01/16/23 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*01/16/23 12:24*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*01/16/23 12:24*	*1*

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

Lab Sample ID: MB 880-43804/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43781 — **Prep Batch: 43804**

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

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QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43804/1-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43804

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

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

Lab Sample ID: LCS 880-43804/2-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43804

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

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

Lab Sample ID: LCSD 880-43804/3-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*122*		*70 - 130*
o-Terphenyl	*121*		*70 - 130*

Lab Sample ID: 890-3804-A-1-F MS
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

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

Lab Sample ID: 890-3804-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43781 — **Prep Batch: 43804**

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

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43792/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/13/23 23:50	1

Lab Sample ID: LCS 880-43792/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

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

Lab Sample ID: LCSD 880-43792/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251.6		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3804-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	53.1	F1	252	347.0	F1	mg/Kg		117	90 - 110		

Lab Sample ID: 890-3804-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	53.1	F1	252	344.0	F1	mg/Kg		116	90 - 110	1	20

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-45098/1-A
Matrix: Solid
Analysis Batch: 45287

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			02/03/23 05:57	1

Lab Sample ID: LCS 880-45098/2-A
Matrix: Solid
Analysis Batch: 45287

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	269.4		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-45098/3-A
Matrix: Solid
Analysis Batch: 45287

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	270.0		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 890-3970-A-5-C MS
Matrix: Solid
Analysis Batch: 45287

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	102	F1	250	382.4	F1	mg/Kg		112	90 - 110		

Lab Sample ID: 890-3970-A-5-D MSD
Matrix: Solid
Analysis Batch: 45287

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	102	F1	250	382.4	F1	mg/Kg		112	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

GC VOA

Prep Batch: 43748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3809-1	FS16	Total/NA	Solid	5035	
MB 880-43748/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43748/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43748/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3808-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3808-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3809-1	FS16	Total/NA	Solid	8021B	43748
MB 880-43748/5-A	Method Blank	Total/NA	Solid	8021B	43748
MB 880-43960/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-43748/1-A	Lab Control Sample	Total/NA	Solid	8021B	43748
LCSD 880-43748/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43748
890-3808-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	43748
890-3808-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43748

Analysis Batch: 44181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3809-1	FS16	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 43781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3809-1	FS16	Total/NA	Solid	8015B NM	43804
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015B NM	43804
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43804
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43804
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	43804
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43804

Prep Batch: 43804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3809-1	FS16	Total/NA	Solid	8015NM Prep	
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3809-1	FS16	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 43792 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3804-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3804-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-43792/1-A	Method Blank	Soluble	Solid	300.0	43792
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	300.0	43792
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43792
890-3804-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	43792
890-3804-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43792

Leach Batch: 45098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3809-1	FS16	Soluble	Solid	DI Leach	
MB 880-45098/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-45098/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-45098/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3970-A-5-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3970-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3809-1	FS16	Soluble	Solid	300.0	45098
MB 880-45098/1-A	Method Blank	Soluble	Solid	300.0	45098
LCS 880-45098/2-A	Lab Control Sample	Soluble	Solid	300.0	45098
LCSD 880-45098/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	45098
890-3970-A-5-C MS	Matrix Spike	Soluble	Solid	300.0	45098
890-3970-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	45098

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Client Sample ID: FS16
Date Collected: 01/06/23 13:45
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3809-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	43748	01/13/23 13:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43960	01/16/23 21:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44181	01/17/23 14:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			43882	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/12/23 22:16	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	45098	01/30/23 16:20	KS	EET MID
Soluble	Analysis	300.0		1			45287	02/03/23 09:02	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: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3809-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3809-1	FS16	Solid	01/06/23 13:45	01/10/23 09:05	2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Green	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:	432-557-8895	Email:	kjennings@ensolum.com; hgreen@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:	Jalmat Yates Sand Unit 170	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057047	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT

Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.8
Total Containers:		Corrected Temperature:	2.6

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021	Parameters
FS16	S	1/6/2023	13:45	2'	Comp	1		x	x	x	

890-3809 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			1.10.23 905			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3809-1
SDG Number: Lea County NM

Login Number: 3809
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: 890-3809-1
SDG Number: Lea County NM

Login Number: 3809
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 01/11/23 11:43 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/16/2023 6:20:13 PM

JOB DESCRIPTION

Jalmat Yates Sand Unit #170
SDG NUMBER Lea County NM

JOB NUMBER

890-3810-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

Eurofins Carlsbad

Job Notes

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

Authorization

Generated
1/16/2023 6:20:13 PM

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

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Laboratory Job ID: 890-3810-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Job ID: 890-3810-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3810-1

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

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: FS14 (890-3810-1).

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

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

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

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

HPLC/IC
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: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Client Sample ID: FS14

Date Collected: 01/06/23 13:20
Date Received: 01/10/23 09:05
Sample Depth: 1

Lab Sample ID: 890-3810-1

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		01/11/23 12:26	01/14/23 01:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/11/23 12:26	01/14/23 01:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/11/23 12:26	01/14/23 01:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/11/23 12:26	01/14/23 01:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/11/23 12:26	01/14/23 01:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/11/23 12:26	01/14/23 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*01/11/23 12:26*	*01/14/23 01:03*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*01/11/23 12:26*	*01/14/23 01:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1080**		49.8		mg/Kg			01/13/23 12:42	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		01/12/23 11:42	01/13/23 03:23	1
Diesel Range Organics (Over C10-C28)	**953**		49.8		mg/Kg		01/12/23 11:42	01/13/23 03:23	1
Oil Range Organics (Over C28-C36)	**125**		49.8		mg/Kg		01/12/23 11:42	01/13/23 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*01/12/23 11:42*	*01/13/23 03:23*	*1*
o-Terphenyl	*118*		*70 - 130*	*01/12/23 11:42*	*01/13/23 03:23*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**428**		5.00		mg/Kg			01/14/23 01:22	1

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3783-A-1-A MS	Matrix Spike	97	104										
890-3783-A-1-B MSD	Matrix Spike Duplicate	80	88										
890-3810-1	FS14	112	99										
LCS 880-43732/1-A	Lab Control Sample	104	103										
LCSD 880-43732/2-A	Lab Control Sample Dup	90	94										
MB 880-43732/5-A	Method Blank	71	89										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3804-A-1-F MS	Matrix Spike	96	100										
890-3804-A-1-G MSD	Matrix Spike Duplicate	98	102										
890-3810-1	FS14	106	118										
LCS 880-43804/2-A	Lab Control Sample	106	107										
LCSD 880-43804/3-A	Lab Control Sample Dup	122	121										
MB 880-43804/1-A	Method Blank	144 S1+	154 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: LCS 880-43732/1-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: LCSD 880-43732/2-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: 890-3783-A-1-A MS
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43732

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

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

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

Lab Sample ID: 890-3783-A-1-A MS
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: 890-3783-A-1-B MSD
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 43732

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

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

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

Lab Sample ID: MB 880-43804/1-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43804

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

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

Lab Sample ID: LCS 880-43804/2-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43804

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

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-43804/2-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43804

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

Lab Sample ID: LCSD 880-43804/3-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	121		70 - 130

Lab Sample ID: 890-3804-A-1-F MS
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-3804-A-1-G MSD
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	102		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43792/1-A
Matrix: Solid
Analysis Batch: 43924

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/13/23 23:50	1

Lab Sample ID: LCS 880-43792/2-A
Matrix: Solid
Analysis Batch: 43924

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: LCSD 880-43792/3-A
Matrix: Solid
Analysis Batch: 43924

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	251.6		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3810-1 MS
Matrix: Solid
Analysis Batch: 43924

Client Sample ID: FS14
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	428		250	673.4		mg/Kg		98	90 - 110		

Lab Sample ID: 890-3810-1 MSD
Matrix: Solid
Analysis Batch: 43924

Client Sample ID: FS14
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	428		250	670.2		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1	FS14	Total/NA	Solid	5035	
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43732/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43732/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3783-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3783-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1	FS14	Total/NA	Solid	8021B	43732
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
LCS 880-43732/1-A	Lab Control Sample	Total/NA	Solid	8021B	43732
LCSD 880-43732/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43732
890-3783-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43732
890-3783-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43732

Analysis Batch: 44089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1	FS14	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 43781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1	FS14	Total/NA	Solid	8015B NM	43804
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015B NM	43804
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43804
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43804
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	43804
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43804

Prep Batch: 43804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1	FS14	Total/NA	Solid	8015NM Prep	
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1	FS14	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1	FS14	Soluble	Solid	DI Leach	
MB 880-43792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 43792 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1 MS	FS14	Soluble	Solid	DI Leach	
890-3810-1 MSD	FS14	Soluble	Solid	DI Leach	

Analysis Batch: 43924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-1	FS14	Soluble	Solid	300.0	43792
MB 880-43792/1-A	Method Blank	Soluble	Solid	300.0	43792
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	300.0	43792
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43792
890-3810-1 MS	FS14	Soluble	Solid	300.0	43792
890-3810-1 MSD	FS14	Soluble	Solid	300.0	43792

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Client Sample ID: FS14

Date Collected: 01/06/23 13:20
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3810-1

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	43732	01/11/23 12:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 01:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44089	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43888	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/13/23 03:23	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43792	01/12/23 09:21	KS	EET MID
Soluble	Analysis	300.0		1			43924	01/14/23 01:22	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: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3810-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3810-1	FS14	Solid	01/06/23 13:20	01/10/23 09:05	1

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-557-8895	Email:	kjennings@ensolum.com; hgreen@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:	Jalmat Yates Sand Unit 170	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057047	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM207
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.8
Total Containers:		Corrected Temperature:	2.6

Preservative Codes

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

890-3810 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
FS14	S	1/6/2023	13:20	1'	Comp	1		x	x	x

DN 01/06/23

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		1-10-23 905	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3810-1
SDG Number: Lea County NM

Login Number: 3810
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: 890-3810-1
SDG Number: Lea County NM

Login Number: 3810
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 01/11/23 11:43 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

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

JOB DESCRIPTION

Jalmat Yates Sand Unit #170
SDG NUMBER Lea County NM

JOB NUMBER

890-3811-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

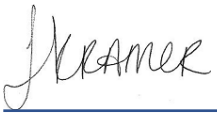
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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1/16/2023 6:20:07 PM

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

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Laboratory Job ID: 890-3811-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-3811-1
Project/Site: Jalmat Yates Sand Unit #170 SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

Job ID: 890-3811-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3811-1

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

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: FS15 (890-3811-1).

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

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

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

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

HPLC/IC
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: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

Client Sample ID: FS15

Date Collected: 01/06/23 13:35
Date Received: 01/10/23 09:05
Sample Depth: 2

Lab Sample ID: 890-3811-1

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		01/11/23 12:26	01/14/23 01:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/11/23 12:26	01/14/23 01:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/11/23 12:26	01/14/23 01:30	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/11/23 12:26	01/14/23 01:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/11/23 12:26	01/14/23 01:30	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/11/23 12:26	01/14/23 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/11/23 12:26*	*01/14/23 01:30*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*01/11/23 12:26*	*01/14/23 01:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

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

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/12/23 11:42	01/12/23 22:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/12/23 11:42	01/12/23 22:38	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/12/23 11:42	01/12/23 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*01/12/23 11:42*	*01/12/23 22:38*	*1*
o-Terphenyl	*126*		*70 - 130*	*01/12/23 11:42*	*01/12/23 22:38*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**286**		5.02		mg/Kg			01/14/23 01:39	1

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3783-A-1-A MS	Matrix Spike	97	104
890-3783-A-1-B MSD	Matrix Spike Duplicate	80	88
890-3811-1	FS15	109	96
LCS 880-43732/1-A	Lab Control Sample	104	103
LCSD 880-43732/2-A	Lab Control Sample Dup	90	94
MB 880-43732/5-A	Method Blank	71	89

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3804-A-1-F MS	Matrix Spike	96	100
890-3804-A-1-G MSD	Matrix Spike Duplicate	98	102
890-3811-1	FS15	113	126
LCS 880-43804/2-A	Lab Control Sample	106	107
LCSD 880-43804/3-A	Lab Control Sample Dup	122	121
MB 880-43804/1-A	Method Blank	144 S1+	154 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: LCS 880-43732/1-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: LCSD 880-43732/2-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: 890-3783-A-1-A MS
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43732

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

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QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

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

Lab Sample ID: 890-3783-A-1-A MS
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: 890-3783-A-1-B MSD
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 43732

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

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

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

Lab Sample ID: MB 880-43804/1-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43804

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

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

Lab Sample ID: LCS 880-43804/2-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43804

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

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-43804/2-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43804

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

Lab Sample ID: LCSD 880-43804/3-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	121		70 - 130

Lab Sample ID: 890-3804-A-1-F MS
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-3804-A-1-G MSD
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	102		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43792/1-A
Matrix: Solid
Analysis Batch: 43924

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/13/23 23:50	1

Lab Sample ID: LCS 880-43792/2-A
Matrix: Solid
Analysis Batch: 43924

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: LCSD 880-43792/3-A
Matrix: Solid
Analysis Batch: 43924

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	251.6		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3810-A-1-C MS
Matrix: Solid
Analysis Batch: 43924

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	428		250	673.4		mg/Kg		98	90 - 110		

Lab Sample ID: 890-3810-A-1-D MSD
Matrix: Solid
Analysis Batch: 43924

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	428		250	670.2		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3811-1	FS15	Total/NA	Solid	5035	
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43732/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43732/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3783-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3783-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3811-1	FS15	Total/NA	Solid	8021B	43732
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
LCS 880-43732/1-A	Lab Control Sample	Total/NA	Solid	8021B	43732
LCSD 880-43732/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43732
890-3783-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43732
890-3783-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43732

Analysis Batch: 44090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3811-1	FS15	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 43781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3811-1	FS15	Total/NA	Solid	8015B NM	43804
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015B NM	43804
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43804
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43804
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	43804
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43804

Prep Batch: 43804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3811-1	FS15	Total/NA	Solid	8015NM Prep	
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3811-1	FS15	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3811-1	FS15	Soluble	Solid	DI Leach	
MB 880-43792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 43792 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3810-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3811-1	FS15	Soluble	Solid	300.0	43792
MB 880-43792/1-A	Method Blank	Soluble	Solid	300.0	43792
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	300.0	43792
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43792
890-3810-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	43792
890-3810-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43792

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

Client Sample ID: FS15

Date Collected: 01/06/23 13:35
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3811-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	43732	01/11/23 12:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 01:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44090	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43883	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/12/23 22:38	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	43792	01/12/23 09:21	KS	EET MID
Soluble	Analysis	300.0		1			43924	01/14/23 01:39	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3811-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3811-1	FS15	Solid	01/06/23 13:35	01/10/23 09:05	2

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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:	Hadlie Green	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:	432-557-8895	Email:	kjennings@ensolum.com; hgreen@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:	Jalmat Yates Sand Unit 170	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057047	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR #6
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.8
Total Containers:		Corrected Temperature:	2.6

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
FS15	S	1/6/2023	13:35	2'	Comp	1		x	x	x

890-3811 Chain of Custody

Sample Comments

Incident Number

DN 01706122

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		Cruz Ayp	1.10.23 905			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3811-1
SDG Number: Lea County NM

Login Number: 3811
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: 890-3811-1
SDG Number: Lea County NM

Login Number: 3811
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 01/11/23 11:43 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

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JOB DESCRIPTION

Jalmat Yates Sand Unit #170
SDG NUMBER Lea County NM

JOB NUMBER

890-3812-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

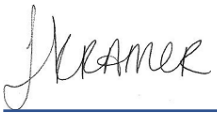
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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1/16/2023 6:20:57 PM

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

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Laboratory Job ID: 890-3812-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Job ID: 890-3812-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3812-1

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

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: FS04 (890-3812-1).

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

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

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

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

HPLC/IC
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: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Client Sample ID: FS04

Date Collected: 01/06/23 09:55
Date Received: 01/10/23 09:05
Sample Depth: 1

Lab Sample ID: 890-3812-1

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		01/11/23 12:26	01/14/23 01:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/11/23 12:26	01/14/23 01:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/11/23 12:26	01/14/23 01:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/11/23 12:26	01/14/23 01:57	1
o-Xylene	**0.00579**		0.00199		mg/Kg		01/11/23 12:26	01/14/23 01:57	1
Xylenes, Total	**0.00579**		0.00398		mg/Kg		01/11/23 12:26	01/14/23 01:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/11/23 12:26*	*01/14/23 01:57*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/11/23 12:26*	*01/14/23 01:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00579**		0.00398		mg/Kg			01/16/23 16:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**81.7**		50.0		mg/Kg			01/13/23 12:42	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/12/23 11:42	01/13/23 03:02	1
Diesel Range Organics (Over C10-C28)	**81.7**		50.0		mg/Kg		01/12/23 11:42	01/13/23 03:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/12/23 11:42	01/13/23 03:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*01/12/23 11:42*	*01/13/23 03:02*	*1*
o-Terphenyl	*92*		*70 - 130*	*01/12/23 11:42*	*01/13/23 03:02*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**543**		5.00		mg/Kg			01/14/23 01:44	1

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3783-A-1-A MS	Matrix Spike	97	104
890-3783-A-1-B MSD	Matrix Spike Duplicate	80	88
890-3812-1	FS04	104	90
LCS 880-43732/1-A	Lab Control Sample	104	103
LCSD 880-43732/2-A	Lab Control Sample Dup	90	94
MB 880-43732/5-A	Method Blank	71	89

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-3804-A-1-F MS	Matrix Spike	96	100
890-3804-A-1-G MSD	Matrix Spike Duplicate	98	102
890-3812-1	FS04	87	92
LCS 880-43804/2-A	Lab Control Sample	106	107
LCSD 880-43804/3-A	Lab Control Sample Dup	122	121
MB 880-43804/1-A	Method Blank	144 S1+	154 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43732/5-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: LCS 880-43732/1-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: LCSD 880-43732/2-A
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: 890-3783-A-1-A MS
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43732

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

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

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

Lab Sample ID: 890-3783-A-1-A MS
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43732

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

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

Lab Sample ID: 890-3783-A-1-B MSD
Matrix: Solid
Analysis Batch: 43878

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 43732

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

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

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

Lab Sample ID: MB 880-43804/1-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43804

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

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

Lab Sample ID: LCS 880-43804/2-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43804

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

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-43804/2-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43804

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

Lab Sample ID: LCSD 880-43804/3-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	121		70 - 130

Lab Sample ID: 890-3804-A-1-F MS
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-3804-A-1-G MSD
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	102		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43792/1-A
Matrix: Solid
Analysis Batch: 43924

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/13/23 23:50	1

Lab Sample ID: LCS 880-43792/2-A
Matrix: Solid
Analysis Batch: 43924

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: LCSD 880-43792/3-A
Matrix: Solid
Analysis Batch: 43924

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	251.6		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3810-A-1-C MS
Matrix: Solid
Analysis Batch: 43924

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	428		250	673.4		mg/Kg		98	90 - 110		

Lab Sample ID: 890-3810-A-1-D MSD
Matrix: Solid
Analysis Batch: 43924

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	428		250	670.2		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

GC VOA

Prep Batch: 43732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3812-1	FS04	Total/NA	Solid	5035	
MB 880-43732/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43732/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43732/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3783-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-3783-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3812-1	FS04	Total/NA	Solid	8021B	43732
MB 880-43732/5-A	Method Blank	Total/NA	Solid	8021B	43732
LCS 880-43732/1-A	Lab Control Sample	Total/NA	Solid	8021B	43732
LCSD 880-43732/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43732
890-3783-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	43732
890-3783-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43732

Analysis Batch: 44091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3812-1	FS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 43781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3812-1	FS04	Total/NA	Solid	8015B NM	43804
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015B NM	43804
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43804
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43804
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	43804
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43804

Prep Batch: 43804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3812-1	FS04	Total/NA	Solid	8015NM Prep	
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3812-1	FS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3812-1	FS04	Soluble	Solid	DI Leach	
MB 880-43792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 43792 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3810-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3810-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3812-1	FS04	Soluble	Solid	300.0	43792
MB 880-43792/1-A	Method Blank	Soluble	Solid	300.0	43792
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	300.0	43792
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43792
890-3810-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	43792
890-3810-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43792

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Client Sample ID: FS04

Date Collected: 01/06/23 09:55
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3812-1

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	43732	01/11/23 12:26	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43878	01/14/23 01:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44091	01/16/23 16:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			43887	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/13/23 03:02	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	43792	01/12/23 09:21	KS	EET MID
Soluble	Analysis	300.0		1			43924	01/14/23 01:44	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: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3812-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3812-1	FS04	Solid	01/06/23 09:55	01/10/23 09:05	1

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Hadlie Green	Bill to: (if different)	Kalei Jennings
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	432-557-8895	Email:	kjennings@ensolum.com; hgreen@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:	Jalmat Yates Sand Unit 170	Turn Around	
Project Number:	03D2057047	☑ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Dmitry Nikanorov	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TM007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.8	
Total Containers:		Corrected Temperature:	2.6	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
FS04	S	1/6/2023	9:55	1'	Comp	1		x	x	x

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

D.N. 01/06/23

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		1-10-23 905	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3812-1
SDG Number: Lea County NM

Login Number: 3812
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: 890-3812-1
SDG Number: Lea County NM

Login Number: 3812
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 01/11/23 11:43 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

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JOB DESCRIPTION

Jalmat Yates Sand Unit #170
SDG NUMBER Lea County NM

JOB NUMBER

890-3813-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

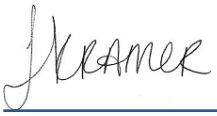
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Laboratory Job ID: 890-3813-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

Job ID: 890-3813-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3813-1

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

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: FS06 (890-3813-1).

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

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

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

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

HPLC/IC
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: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

Client Sample ID: FS06

Date Collected: 01/06/23 10:25
Date Received: 01/10/23 09:05
Sample Depth: 1

Lab Sample ID: 890-3813-1

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		01/13/23 13:36	01/16/23 21:25	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/13/23 13:36	01/16/23 21:25	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/13/23 13:36	01/16/23 21:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/13/23 13:36	01/16/23 21:25	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/13/23 13:36	01/16/23 21:25	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/13/23 13:36	01/16/23 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*01/13/23 13:36*	*01/16/23 21:25*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/13/23 13:36*	*01/16/23 21:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/17/23 14:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**627**		50.0		mg/Kg			01/13/23 12:42	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/12/23 11:42	01/13/23 03:45	1
Diesel Range Organics (Over C10-C28)	**543**		50.0		mg/Kg		01/12/23 11:42	01/13/23 03:45	1
Oil Range Organics (Over C28-C36)	**83.5**		50.0		mg/Kg		01/12/23 11:42	01/13/23 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*01/12/23 11:42*	*01/13/23 03:45*	*1*
o-Terphenyl	*102*		*70 - 130*	*01/12/23 11:42*	*01/13/23 03:45*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1460**		4.98		mg/Kg			01/14/23 02:01	1

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-3808-A-1-D MS	Matrix Spike	111	102										
890-3808-A-1-E MSD	Matrix Spike Duplicate	112	103										
890-3813-1	FS06	118	104										
LCS 880-43748/1-A	Lab Control Sample	111	100										
LCSD 880-43748/2-A	Lab Control Sample Dup	112	105										
MB 880-43748/5-A	Method Blank	112	100										
MB 880-43960/8	Method Blank	110	99										

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)										
890-3804-A-1-F MS	Matrix Spike	96	100										
890-3804-A-1-G MSD	Matrix Spike Duplicate	98	102										
890-3813-1	FS06	94	102										
LCS 880-43804/2-A	Lab Control Sample	106	107										
LCSD 880-43804/3-A	Lab Control Sample Dup	122	121										
MB 880-43804/1-A	Method Blank	144 S1+	154 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-43748/5-A
Matrix: Solid
Analysis Batch: 43960

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43748

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/13/23 13:36	01/16/23 19:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/13/23 13:36	01/16/23 19:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*01/13/23 13:36*	*01/16/23 19:34*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*01/13/23 13:36*	*01/16/23 19:34*	*1*

Lab Sample ID: LCS 880-43748/1-A
Matrix: Solid
Analysis Batch: 43960

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43748

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1121		mg/Kg		112	70 - 130		
Toluene			0.100	0.1077		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1052		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2165		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1024		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-43748/2-A
Matrix: Solid
Analysis Batch: 43960

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43748

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1159		mg/Kg		116	70 - 130	3	35
Toluene			0.100	0.1086		mg/Kg		109	70 - 130	1	35
Ethylbenzene			0.100	0.1066		mg/Kg		107	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2192		mg/Kg		110	70 - 130	1	35
o-Xylene			0.100	0.1045		mg/Kg		105	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 890-3808-A-1-D MS
Matrix: Solid
Analysis Batch: 43960

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.101	0.09870		mg/Kg		98	70 - 130		
Toluene	<0.00200	U	0.101	0.09623		mg/Kg		95	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

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

Lab Sample ID: 890-3808-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43960 — **Prep Batch: 43748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.101	0.09472		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.202	0.1946		mg/Kg		96	70 - 130
o-Xylene	<0.00200	U	0.101	0.09494		mg/Kg		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-3808-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43960 — **Prep Batch: 43748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1006		mg/Kg		101	70 - 130	2	35
Toluene	<0.00200	U	0.0996	0.09733		mg/Kg		98	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.0996	0.09546		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1956		mg/Kg		98	70 - 130	1	35
o-Xylene	<0.00200	U	0.0996	0.09472		mg/Kg		95	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: MB 880-43960/8 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43960

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg			01/16/23 12:24	1
Toluene	<0.00200	U	0.00200	mg/Kg			01/16/23 12:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg			01/16/23 12:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg			01/16/23 12:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg			01/16/23 12:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg			01/16/23 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*01/16/23 12:24*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*		*01/16/23 12:24*	*1*

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

Lab Sample ID: MB 880-43804/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43781 — **Prep Batch: 43804**

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

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-43804/1-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 43804

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

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

Lab Sample ID: LCS 880-43804/2-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 43804

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

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

Lab Sample ID: LCSD 880-43804/3-A
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*122*		*70 - 130*
o-Terphenyl	*121*		*70 - 130*

Lab Sample ID: 890-3804-A-1-F MS
Matrix: Solid
Analysis Batch: 43781

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 43804

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

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

Lab Sample ID: 890-3804-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 43781 — **Prep Batch: 43804**

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

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-43792/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/13/23 23:50	1

Lab Sample ID: LCS 880-43792/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

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

Lab Sample ID: LCSD 880-43792/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251.6		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-3810-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	428		250	673.4		mg/Kg		98	90 - 110		

Lab Sample ID: 890-3810-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 43924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	428		250	670.2		mg/Kg		97	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

GC VOA

Prep Batch: 43748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3813-1	FS06	Total/NA	Solid	5035	
MB 880-43748/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-43748/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-43748/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3808-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3808-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 43960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3813-1	FS06	Total/NA	Solid	8021B	43748
MB 880-43748/5-A	Method Blank	Total/NA	Solid	8021B	43748
MB 880-43960/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-43748/1-A	Lab Control Sample	Total/NA	Solid	8021B	43748
LCSD 880-43748/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	43748
890-3808-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	43748
890-3808-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	43748

Analysis Batch: 44182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3813-1	FS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 43781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3813-1	FS06	Total/NA	Solid	8015B NM	43804
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015B NM	43804
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	43804
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	43804
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	43804
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	43804

Prep Batch: 43804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3813-1	FS06	Total/NA	Solid	8015NM Prep	
MB 880-43804/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-43804/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-43804/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3804-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3804-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 43889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3813-1	FS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 43792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3813-1	FS06	Soluble	Solid	DI Leach	
MB 880-43792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

HPLC/IC (Continued)

Leach Batch: 43792 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3810-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3810-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 43924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3813-1	FS06	Soluble	Solid	300.0	43792
MB 880-43792/1-A	Method Blank	Soluble	Solid	300.0	43792
LCS 880-43792/2-A	Lab Control Sample	Soluble	Solid	300.0	43792
LCSD 880-43792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	43792
890-3810-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	43792
890-3810-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	43792

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

Client Sample ID: FS06

Date Collected: 01/06/23 10:25
Date Received: 01/10/23 09:05

Lab Sample ID: 890-3813-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	43748	01/13/23 13:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	43960	01/16/23 21:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44182	01/17/23 14:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			43889	01/13/23 12:42	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	43804	01/12/23 11:42	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	43781	01/13/23 03:45	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	43792	01/12/23 09:21	KS	EET MID
Soluble	Analysis	300.0		1			43924	01/14/23 02:01	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: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Jalmat Yates Sand Unit #170

Job ID: 890-3813-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3813-1	FS06	Solid	01/06/23 10:25	01/10/23 09:05	1

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Green	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:	432-557-8895	Email:	kjennings@ensolum.com; hgreen@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:	Jalmat Yates Sand Unit 170	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2057047	Due Date:	
Project Location:	Lea County, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Dmitry Nikanorov		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	NM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.09
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.9
Total Containers:		Corrected Temperature:	2.6

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS06	S	1/6/2023	10:25	1'	Comp	1		x	x	x

890-3813 Chain of Custody

Preservative Codes

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

Sample Comments

Incident Number

DN 01/06/23

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 DN		1.10.23905	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3813-1
SDG Number: Lea County NM

Login Number: 3813
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: 890-3813-1
SDG Number: Lea County NM

Login Number: 3813
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 01/11/23 11:43 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/5/2023 9:38:17 AM

JOB DESCRIPTION

Jalmat Yates Sant Unit 170
SDG NUMBER 03D2057047

JOB NUMBER

890-3924-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

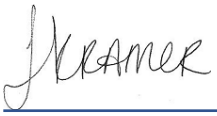
See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

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

Authorization



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2/5/2023 9:38:17 AM

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

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Laboratory Job ID: 890-3924-1
SDG: 03D2057047

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Job ID: 890-3924-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3924-1

Receipt
The samples were received on 1/23/2023 4:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-3924-1), FS02 (890-3924-2), FS05 (890-3924-3), FS06 (890-3924-4), FS09 (890-3924-5), FS10 (890-3924-6), FS11 (890-3924-7), FS12 (890-3924-8), FS13 (890-3924-9), FS17 (890-3924-10), FS18 (890-3924-11), FS19 (890-3924-12), FS20 (890-3924-13), FS21 (890-3924-14), FS22 (890-3924-15), FS23 (890-3924-16), FS24 (890-3924-17), FS25 (890-3924-18), FS26 (890-3924-19), FS27 (890-3924-20), FS28 (890-3924-21), FS29 (890-3924-22), FS30 (890-3924-23), FS31 (890-3924-24), FS32 (890-3924-25), FS33 (890-3924-26) and FS34 (890-3924-27).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-45146 and analytical batch 880-45131 was outside the 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: Surrogate recovery for the following sample was outside control limits: (890-3898-A-1-F MS). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44791 and analytical batch 880-44924 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: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS01

Lab Sample ID: 890-3924-1
Matrix: Solid
Date Collected: 01/18/23 10:00
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 05:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 05:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 05:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/23 16:30	02/01/23 05:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 05:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/23 16:30	02/01/23 05:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/31/23 16:30*	*02/01/23 05:56*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/31/23 16:30*	*02/01/23 05:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/01/23 12:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/03/23 11:49	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		02/01/23 12:51	02/03/23 03:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/03/23 03:27	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/03/23 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*02/01/23 12:51*	*02/03/23 03:27*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/01/23 12:51*	*02/03/23 03:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**366**		5.02		mg/Kg			01/27/23 15:42	1

Client Sample ID: FS02

Lab Sample ID: 890-3924-2
Matrix: Solid
Date Collected: 01/18/23 10:10
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 06:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 06:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 06:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/23 16:30	02/01/23 06:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 06:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/23 16:30	02/01/23 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/31/23 16:30*	*02/01/23 06:16*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS02

Lab Sample ID: 890-3924-2
Matrix: Solid
Date Collected: 01/18/23 10:10
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*01/31/23 16:30*	*02/01/23 06:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/01/23 12:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/03/23 03:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/03/23 03:47	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 12:51	02/03/23 03:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*87*		*70 - 130*	*02/01/23 12:51*	*02/03/23 03:47*	*1*
o-Terphenyl	*84*		*70 - 130*	*02/01/23 12:51*	*02/03/23 03:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**379**		4.98	mg/Kg			01/27/23 16:01	1

Client Sample ID: FS05

Lab Sample ID: 890-3924-3
Matrix: Solid
Date Collected: 01/18/23 10:45
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/31/23 16:30	02/01/23 06:37	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/31/23 16:30	02/01/23 06:37	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/31/23 16:30	02/01/23 06:37	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/31/23 16:30	02/01/23 06:37	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/31/23 16:30	02/01/23 06:37	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/31/23 16:30	02/01/23 06:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*01/31/23 16:30*	*02/01/23 06:37*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*01/31/23 16:30*	*02/01/23 06:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/01/23 12:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/03/23 11:49	1

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Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS05

Lab Sample ID: 890-3924-3
Matrix: Solid
Date Collected: 01/18/23 10:45
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 04:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 04:07	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*02/01/23 12:51*	*02/03/23 04:07*	*1*
o-Terphenyl	*83*		*70 - 130*	*02/01/23 12:51*	*02/03/23 04:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**373**		5.00		mg/Kg			01/27/23 16:07	1

Client Sample ID: FS06

Lab Sample ID: 890-3924-4
Matrix: Solid
Date Collected: 01/18/23 13:20
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 06:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 06:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 06:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/23 16:30	02/01/23 06:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/23 16:30	02/01/23 06:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/23 16:30	02/01/23 06:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/31/23 16:30*	*02/01/23 06:57*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*01/31/23 16:30*	*02/01/23 06:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/01/23 12:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 04:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 04:27	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*02/01/23 12:51*	*02/03/23 04:27*	*1*
o-Terphenyl	*88*		*70 - 130*	*02/01/23 12:51*	*02/03/23 04:27*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS06

Lab Sample ID: 890-3924-4
Matrix: Solid
Date Collected: 01/18/23 13:20
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**132**		4.95		mg/Kg			01/27/23 16:13	1

Client Sample ID: FS09

Lab Sample ID: 890-3924-5
Matrix: Solid
Date Collected: 01/18/23 13:25
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/31/23 16:30	02/01/23 07:17	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/31/23 16:30	02/01/23 07:17	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/31/23 16:30	02/01/23 07:17	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/31/23 16:30	02/01/23 07:17	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/31/23 16:30	02/01/23 07:17	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/31/23 16:30	02/01/23 07:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/31/23 16:30*	*02/01/23 07:17*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*01/31/23 16:30*	*02/01/23 07:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/01/23 12:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**54.8**		49.9		mg/Kg			02/03/23 11:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 04:47	1
Diesel Range Organics (Over C10-C28)	**54.8**		49.9		mg/Kg		02/01/23 12:51	02/03/23 04:47	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/03/23 04:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*02/01/23 12:51*	*02/03/23 04:47*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/01/23 12:51*	*02/03/23 04:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**156**		5.01		mg/Kg			01/27/23 16:19	1

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS10

Lab Sample ID: 890-3924-6
Matrix: Solid
Date Collected: 01/18/23 13:30
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 16:30	02/01/23 07:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 16:30	02/01/23 07:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 16:30	02/01/23 07:38	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/31/23 16:30	02/01/23 07:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 16:30	02/01/23 07:38	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/31/23 16:30	02/01/23 07:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/31/23 16:30*	*02/01/23 07:38*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*01/31/23 16:30*	*02/01/23 07:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/01/23 12:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/03/23 11:49	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		02/01/23 12:51	02/03/23 05:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/03/23 05:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 12:51	02/03/23 05:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*02/01/23 12:51*	*02/03/23 05:07*	*1*
o-Terphenyl	*96*		*70 - 130*	*02/01/23 12:51*	*02/03/23 05:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**439**		5.01		mg/Kg			01/27/23 16:38	1

Client Sample ID: FS11

Lab Sample ID: 890-3924-7
Matrix: Solid
Date Collected: 01/19/23 08:30
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	01/31/23 17:36	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	01/31/23 17:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	01/31/23 17:36	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/31/23 14:29	01/31/23 17:36	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	01/31/23 17:36	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/31/23 14:29	01/31/23 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*01/31/23 14:29*	*01/31/23 17:36*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS11

Lab Sample ID: 890-3924-7
Matrix: Solid
Date Collected: 01/19/23 08:30
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/31/23 14:29*	*01/31/23 17:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/03/23 16:54	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		02/01/23 14:47	02/03/23 11:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/23 14:47	02/03/23 11:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/23 14:47	02/03/23 11:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*02/01/23 14:47*	*02/03/23 11:16*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*02/01/23 14:47*	*02/03/23 11:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.1**		4.97	mg/Kg			01/27/23 16:44	1

Client Sample ID: FS12

Lab Sample ID: 890-3924-8
Matrix: Solid
Date Collected: 01/19/23 08:35
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:29	01/31/23 17:56	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:29	01/31/23 17:56	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:29	01/31/23 17:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/31/23 14:29	01/31/23 17:56	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:29	01/31/23 17:56	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/31/23 14:29	01/31/23 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*01/31/23 14:29*	*01/31/23 17:56*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/31/23 14:29*	*01/31/23 17:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/03/23 16:54	1

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Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS12

Lab Sample ID: 890-3924-8
Matrix: Solid
Date Collected: 01/19/23 08:35
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 12:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 12:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*02/01/23 14:47*	*02/03/23 12:22*	*1*
o-Terphenyl	*116*		*70 - 130*	*02/01/23 14:47*	*02/03/23 12:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.1**		4.99		mg/Kg			01/27/23 16:50	1

Client Sample ID: FS13

Lab Sample ID: 890-3924-9
Matrix: Solid
Date Collected: 01/19/23 08:40
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 18:17	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 18:17	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 18:17	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/31/23 14:29	01/31/23 18:17	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 18:17	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/31/23 14:29	01/31/23 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*01/31/23 14:29*	*01/31/23 18:17*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/31/23 14:29*	*01/31/23 18:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**92.5**		50.0		mg/Kg			02/03/23 16:54	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		02/01/23 14:47	02/03/23 12:45	1
Diesel Range Organics (Over C10-C28)	**68.7**		50.0		mg/Kg		02/01/23 14:47	02/03/23 12:45	1
Oil Range Organics (Over C28-C36)	**23.8**		50.0		mg/Kg		02/01/23 14:47	02/03/23 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*02/01/23 14:47*	*02/03/23 12:45*	*1*
o-Terphenyl	*105*		*70 - 130*	*02/01/23 14:47*	*02/03/23 12:45*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS13

Lab Sample ID: 890-3924-9
Matrix: Solid
Date Collected: 01/19/23 08:40
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	127		5.00		mg/Kg			01/27/23 16:56	1

Client Sample ID: FS17

Lab Sample ID: 890-3924-10
Matrix: Solid
Date Collected: 01/19/23 09:10
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 18:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 18:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 18:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/23 14:29	01/31/23 18:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 18:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/23 14:29	01/31/23 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*01/31/23 14:29*	*01/31/23 18:37*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*01/31/23 14:29*	*01/31/23 18:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/03/23 16:54	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		02/01/23 14:47	02/03/23 13:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 13:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*02/01/23 14:47*	*02/03/23 13:06*	*1*
o-Terphenyl	*122*		*70 - 130*	*02/01/23 14:47*	*02/03/23 13:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	345		5.00		mg/Kg			01/27/23 17:02	1

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS18

Lab Sample ID: 890-3924-11
Matrix: Solid
Date Collected: 01/19/23 09:15
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 18:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 18:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 18:58	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/31/23 14:29	01/31/23 18:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 18:58	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/31/23 14:29	01/31/23 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/31/23 14:29*	*01/31/23 18:58*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/31/23 14:29*	*01/31/23 18:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/03/23 16:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 13:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 13:28	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*02/01/23 14:47*	*02/03/23 13:28*	*1*
o-Terphenyl	*105*		*70 - 130*	*02/01/23 14:47*	*02/03/23 13:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**393**	**F1**	4.97		mg/Kg			01/27/23 17:08	1

Client Sample ID: FS19

Lab Sample ID: 890-3924-12
Matrix: Solid
Date Collected: 01/19/23 09:20
Date Received: 01/23/23 16:24
Sample Depth: 2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	01/31/23 19:18	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	01/31/23 19:18	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	01/31/23 19:18	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/31/23 14:29	01/31/23 19:18	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	01/31/23 19:18	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/31/23 14:29	01/31/23 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*01/31/23 14:29*	*01/31/23 19:18*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS19

Lab Sample ID: 890-3924-12
Matrix: Solid
Date Collected: 01/19/23 09:20
Date Received: 01/23/23 16:24
Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*01/31/23 14:29*	*01/31/23 19:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/03/23 16:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 13:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 13:51	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 13:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*94*		*70 - 130*	*02/01/23 14:47*	*02/03/23 13:51*	*1*
o-Terphenyl	*106*		*70 - 130*	*02/01/23 14:47*	*02/03/23 13:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.31**		5.05	mg/Kg			01/27/23 17:27	1

Client Sample ID: FS20

Lab Sample ID: 890-3924-13
Matrix: Solid
Date Collected: 01/19/23 09:25
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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		01/31/23 14:29	01/31/23 19:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:29	01/31/23 19:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:29	01/31/23 19:39	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/31/23 14:29	01/31/23 19:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:29	01/31/23 19:39	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/31/23 14:29	01/31/23 19:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*01/31/23 14:29*	*01/31/23 19:39*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*01/31/23 14:29*	*01/31/23 19:39*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**76.3**		49.9	mg/Kg			02/03/23 16:54	1

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Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS20

Lab Sample ID: 890-3924-13
Matrix: Solid
Date Collected: 01/19/23 09:25
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 14:12	1
Diesel Range Organics (Over C10-C28)	**76.3**		49.9		mg/Kg		02/01/23 14:47	02/03/23 14:12	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*52*	*S1-*	*70 - 130*	*02/01/23 14:47*	*02/03/23 14:12*	*1*
o-Terphenyl	*112*		*70 - 130*	*02/01/23 14:47*	*02/03/23 14:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.2**		5.00		mg/Kg			01/27/23 17:33	1

Client Sample ID: FS21

Lab Sample ID: 890-3924-14
Matrix: Solid
Date Collected: 01/19/23 11:00
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:29	01/31/23 19:59	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:29	01/31/23 19:59	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:29	01/31/23 19:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/23 14:29	01/31/23 19:59	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:29	01/31/23 19:59	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/23 14:29	01/31/23 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*01/31/23 14:29*	*01/31/23 19:59*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*01/31/23 14:29*	*01/31/23 19:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/03/23 16:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 14:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 14:34	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*02/01/23 14:47*	*02/03/23 14:34*	*1*
o-Terphenyl	*106*		*70 - 130*	*02/01/23 14:47*	*02/03/23 14:34*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS21

Lab Sample ID: 890-3924-14
Matrix: Solid
Date Collected: 01/19/23 11:00
Date Received: 01/23/23 16:24
Sample Depth: 2.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.86		4.98		mg/Kg			01/27/23 17:51	1

Client Sample ID: FS22

Lab Sample ID: 890-3924-15
Matrix: Solid
Date Collected: 01/19/23 11:05
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:29	01/31/23 20:20	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:29	01/31/23 20:20	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:29	01/31/23 20:20	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/31/23 14:29	01/31/23 20:20	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:29	01/31/23 20:20	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/31/23 14:29	01/31/23 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/31/23 14:29*	*01/31/23 20:20*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*01/31/23 14:29*	*01/31/23 20:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/03/23 16:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 14:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 14:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*02/01/23 14:47*	*02/03/23 14:55*	*1*
o-Terphenyl	*110*		*70 - 130*	*02/01/23 14:47*	*02/03/23 14:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	474		5.02		mg/Kg			01/27/23 17:58	1

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS23

Lab Sample ID: 890-3924-16
Matrix: Solid
Date Collected: 01/19/23 11:25
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:29	01/31/23 20:40	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:29	01/31/23 20:40	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:29	01/31/23 20:40	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/31/23 14:29	01/31/23 20:40	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:29	01/31/23 20:40	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/31/23 14:29	01/31/23 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/31/23 14:29*	*01/31/23 20:40*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/31/23 14:29*	*01/31/23 20:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/03/23 16:54	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		02/01/23 14:47	02/03/23 15:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 15:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*02/01/23 14:47*	*02/03/23 15:16*	*1*
o-Terphenyl	*117*		*70 - 130*	*02/01/23 14:47*	*02/03/23 15:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.3**		4.98		mg/Kg			01/27/23 18:04	1

Client Sample ID: FS24

Lab Sample ID: 890-3924-17
Matrix: Solid
Date Collected: 01/19/23 11:30
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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		01/31/23 14:29	01/31/23 22:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 22:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 22:03	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/31/23 14:29	01/31/23 22:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 22:03	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/31/23 14:29	01/31/23 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/31/23 14:29*	*01/31/23 22:03*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS24

Lab Sample ID: 890-3924-17
Matrix: Solid
Date Collected: 01/19/23 11:30
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/31/23 14:29*	*01/31/23 22:03*	*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			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/03/23 16:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 16:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 16:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*02/01/23 14:47*	*02/03/23 16:00*	*1*
o-Terphenyl	*115*		*70 - 130*	*02/01/23 14:47*	*02/03/23 16:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96	mg/Kg			01/27/23 18:10	1

Client Sample ID: FS25

Lab Sample ID: 890-3924-18
Matrix: Solid
Date Collected: 01/19/23 11:35
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:29	01/31/23 22:24	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:29	01/31/23 22:24	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:29	01/31/23 22:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/31/23 14:29	01/31/23 22:24	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/31/23 14:29	01/31/23 22:24	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/31/23 14:29	01/31/23 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*01/31/23 14:29*	*01/31/23 22:24*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*01/31/23 14:29*	*01/31/23 22:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/03/23 16:54	1

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Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS25

Lab Sample ID: 890-3924-18
Matrix: Solid
Date Collected: 01/19/23 11:35
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 16:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 16:22	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*02/01/23 14:47*	*02/03/23 16:22*	*1*
o-Terphenyl	*106*		*70 - 130*	*02/01/23 14:47*	*02/03/23 16:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			01/27/23 18:16	1

Client Sample ID: FS26

Lab Sample ID: 890-3924-19
Matrix: Solid
Date Collected: 01/19/23 12:00
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 22:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 22:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 22:44	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/31/23 14:29	01/31/23 22:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 22:44	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/31/23 14:29	01/31/23 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/31/23 14:29*	*01/31/23 22:44*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*01/31/23 14:29*	*01/31/23 22:44*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/05/23 09:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 16:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 16:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*02/01/23 14:47*	*02/03/23 16:43*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/01/23 14:47*	*02/03/23 16:43*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS26

Lab Sample ID: 890-3924-19
Matrix: Solid
Date Collected: 01/19/23 12:00
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59.2		4.99		mg/Kg			01/27/23 18:22	1

Client Sample ID: FS27

Lab Sample ID: 890-3924-20
Matrix: Solid
Date Collected: 01/19/23 12:05
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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		01/31/23 14:29	01/31/23 23:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 23:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 23:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/23 14:29	01/31/23 23:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 23:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/23 14:29	01/31/23 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*01/31/23 14:29*	*01/31/23 23:05*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/31/23 14:29*	*01/31/23 23:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/05/23 09:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 17:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 17:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/01/23 14:47*	*02/03/23 17:05*	*1*
o-Terphenyl	*108*		*70 - 130*	*02/01/23 14:47*	*02/03/23 17:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.2		4.96		mg/Kg			01/27/23 19:18	1

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS28

Lab Sample ID: 890-3924-21
Matrix: Solid
Date Collected: 01/19/23 12:10
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:29	01/31/23 23:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:29	01/31/23 23:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:29	01/31/23 23:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/23 14:29	01/31/23 23:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:29	01/31/23 23:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/23 14:29	01/31/23 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*01/31/23 14:29*	*01/31/23 23:26*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*01/31/23 14:29*	*01/31/23 23:26*	*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			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/05/23 09:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 17:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 17:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*02/01/23 14:47*	*02/03/23 17:26*	*1*
o-Terphenyl	*118*		*70 - 130*	*02/01/23 14:47*	*02/03/23 17:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**99.6**		5.01		mg/Kg			01/27/23 19:36	1

Client Sample ID: FS29

Lab Sample ID: 890-3924-22
Matrix: Solid
Date Collected: 01/19/23 12:30
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 23:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 23:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 23:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/31/23 14:29	01/31/23 23:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	01/31/23 23:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/31/23 14:29	01/31/23 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*01/31/23 14:29*	*01/31/23 23:46*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS29

Date Collected: 01/19/23 12:30
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

Lab Sample ID: 890-3924-22

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/31/23 14:29*	*01/31/23 23:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/05/23 09:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 17:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 17:48	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 14:47	02/03/23 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*02/01/23 14:47*	*02/03/23 17:48*	*1*
o-Terphenyl	*118*		*70 - 130*	*02/01/23 14:47*	*02/03/23 17:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05	mg/Kg			01/27/23 19:43	1

Client Sample ID: FS30

Date Collected: 01/19/23 12:35
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

Lab Sample ID: 890-3924-23

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		01/31/23 14:29	02/01/23 00:07	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:29	02/01/23 00:07	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:29	02/01/23 00:07	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/31/23 14:29	02/01/23 00:07	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/31/23 14:29	02/01/23 00:07	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/31/23 14:29	02/01/23 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*01/31/23 14:29*	*02/01/23 00:07*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/31/23 14:29*	*02/01/23 00:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/05/23 09:15	1

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Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS30

Lab Sample ID: 890-3924-23
Matrix: Solid
Date Collected: 01/19/23 12:35
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*02/01/23 14:47*	*02/03/23 18:09*	*1*
o-Terphenyl	*103*		*70 - 130*	*02/01/23 14:47*	*02/03/23 18:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/23 19:49	1

Client Sample ID: FS31

Lab Sample ID: 890-3924-24
Matrix: Solid
Date Collected: 01/19/23 12:40
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	02/01/23 00:27	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	02/01/23 00:27	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	02/01/23 00:27	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/31/23 14:29	02/01/23 00:27	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:29	02/01/23 00:27	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/31/23 14:29	02/01/23 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*01/31/23 14:29*	*02/01/23 00:27*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*01/31/23 14:29*	*02/01/23 00:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/05/23 09:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*02/01/23 14:47*	*02/03/23 18:31*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/01/23 14:47*	*02/03/23 18:31*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS31

Lab Sample ID: 890-3924-24
Matrix: Solid
Date Collected: 01/19/23 12:40
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.7		4.97		mg/Kg			01/27/23 19:55	1

Client Sample ID: FS32

Lab Sample ID: 890-3924-25
Matrix: Solid
Date Collected: 01/19/23 13:40
Date Received: 01/23/23 16:24
Sample Depth: 2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	02/01/23 00:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	02/01/23 00:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	02/01/23 00:48	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/31/23 14:29	02/01/23 00:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	02/01/23 00:48	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/31/23 14:29	02/01/23 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*01/31/23 14:29*	*02/01/23 00:48*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/31/23 14:29*	*02/01/23 00:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/05/23 09:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:54	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*02/01/23 14:47*	*02/03/23 18:54*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/01/23 14:47*	*02/03/23 18:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.05		4.98		mg/Kg			01/27/23 20:13	1

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS33

Lab Sample ID: 890-3924-26
Matrix: Solid
Date Collected: 01/19/23 13:45
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	02/01/23 01:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	02/01/23 01:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	02/01/23 01:08	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/31/23 14:29	02/01/23 01:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:29	02/01/23 01:08	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/31/23 14:29	02/01/23 01:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*01/31/23 14:29*	*02/01/23 01:08*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*01/31/23 14:29*	*02/01/23 01:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/05/23 09:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 19:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 19:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 14:47	02/03/23 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*02/01/23 14:47*	*02/03/23 19:16*	*1*
o-Terphenyl	*96*		*70 - 130*	*02/01/23 14:47*	*02/03/23 19:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			01/27/23 20:20	1

Client Sample ID: FS34

Lab Sample ID: 890-3924-27
Matrix: Solid
Date Collected: 01/19/23 13:50
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:43	02/01/23 11:45	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:43	02/01/23 11:45	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:43	02/01/23 11:45	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/31/23 14:43	02/01/23 11:45	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/31/23 14:43	02/01/23 11:45	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/31/23 14:43	02/01/23 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*01/31/23 14:43*	*02/01/23 11:45*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS34

Date Collected: 01/19/23 13:50
Date Received: 01/23/23 16:24
Sample Depth: 0.5'

Lab Sample ID: 890-3924-27

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/31/23 14:43*	*02/01/23 11:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/04/23 09:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 17:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 17:15	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*02/01/23 15:22*	*02/03/23 17:15*	*1*
o-Terphenyl	*89*		*70 - 130*	*02/01/23 15:22*	*02/03/23 17:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			01/27/23 20:26	1

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-3916-A-1-C MS	Matrix Spike	100	109
890-3916-A-1-D MSD	Matrix Spike Duplicate	104	110
890-3924-1	FS01	107	113
890-3924-2	FS02	116	116
890-3924-3	FS05	117	111
890-3924-4	FS06	111	114
890-3924-5	FS09	109	118
890-3924-6	FS10	107	115
890-3924-7	FS11	84	95
890-3924-7 MS	FS11	112	114
890-3924-7 MSD	FS11	110	86
890-3924-8	FS12	84	92
890-3924-9	FS13	88	103
890-3924-10	FS17	111	85
890-3924-11	FS18	103	83
890-3924-12	FS19	110	86
890-3924-13	FS20	109	79
890-3924-14	FS21	91	90
890-3924-15	FS22	101	83
890-3924-16	FS23	103	82
890-3924-17	FS24	108	82
890-3924-18	FS25	80	97
890-3924-19	FS26	105	78
890-3924-20	FS27	89	89
890-3924-21	FS28	81	97
890-3924-22	FS29	81	92
890-3924-23	FS30	90	89
890-3924-24	FS31	81	93
890-3924-25	FS32	108	88
890-3924-26	FS33	85	96
890-3924-27	FS34	81	95
LCS 880-45146/1-A	Lab Control Sample	108	107
LCS 880-45149/1-A	Lab Control Sample	101	108
LCS 880-45157/1-A	Lab Control Sample	97	112
LCSD 880-45146/2-A	Lab Control Sample Dup	104	108
LCSD 880-45149/2-A	Lab Control Sample Dup	103	104
LCSD 880-45157/2-A	Lab Control Sample Dup	103	112
MB 880-45146/5-A	Method Blank	68 S1-	92
MB 880-45147/5-A	Method Blank	102	105
MB 880-45149/5-A	Method Blank	74	91
MB 880-45157/5-A	Method Blank	106	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) 1CO1 (70-130)	OTPH1 (70-130)
890-3898-A-1-F MS	Matrix Spike	81	69 S1-
890-3898-A-1-G MSD	Matrix Spike Duplicate	86	70
890-3911-A-1-F MS	Matrix Spike	84	75
890-3911-A-1-G MSD	Matrix Spike Duplicate	87	75
890-3924-1	FS01	90	87
890-3924-2	FS02	87	84
890-3924-3	FS05	84	83
890-3924-4	FS06	91	88
890-3924-5	FS09	89	85
890-3924-6	FS10	97	96
890-3924-7	FS11	121	131 S1+
890-3924-7 MS	FS11	105	105
890-3924-7 MSD	FS11	108	107
890-3924-8	FS12	109	116
890-3924-9	FS13	93	105
890-3924-10	FS17	112	122
890-3924-11	FS18	94	105
890-3924-12	FS19	94	106
890-3924-13	FS20	52 S1-	112
890-3924-14	FS21	93	106
890-3924-15	FS22	97	110
890-3924-16	FS23	109	117
890-3924-17	FS24	108	115
890-3924-18	FS25	94	106
890-3924-19	FS26	92	104
890-3924-20	FS27	96	108
890-3924-21	FS28	111	118
890-3924-22	FS29	109	118
890-3924-23	FS30	92	103
890-3924-24	FS31	90	100
890-3924-25	FS32	89	97
890-3924-26	FS33	85	96
890-3924-27	FS34	85	89
LCS 880-45202/2-A	Lab Control Sample	87	78
LCS 880-45213/2-A	Lab Control Sample	91	93
LCS 880-45214/2-A	Lab Control Sample	87	84
LCSD 880-45202/3-A	Lab Control Sample Dup	89	79
LCSD 880-45213/3-A	Lab Control Sample Dup	90	94
LCSD 880-45214/3-A	Lab Control Sample Dup	87	84
MB 880-45202/1-A	Method Blank	95	94
MB 880-45213/1-A	Method Blank	123	139 S1+
MB 880-45214/1-A	Method Blank	96	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45146/5-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45146

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/23 14:29	01/31/23 17:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*01/31/23 14:29*	*01/31/23 17:14*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/31/23 14:29*	*01/31/23 17:14*	*1*

Lab Sample ID: LCS 880-45146/1-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45146

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1030		mg/Kg		103	70 - 130		
Toluene			0.100	0.09513		mg/Kg		95	70 - 130		
Ethylbenzene			0.100	0.09787		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.2053		mg/Kg		103	70 - 130		
o-Xylene			0.100	0.1016		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-45146/2-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45146

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1024		mg/Kg		102	70 - 130	1	35
Toluene			0.100	0.08982		mg/Kg		90	70 - 130	6	35
Ethylbenzene			0.100	0.09116		mg/Kg		91	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1915		mg/Kg		96	70 - 130	7	35
o-Xylene			0.100	0.09568		mg/Kg		96	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-3924-7 MS
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: FS11
Prep Type: Total/NA
Prep Batch: 45146

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.101	0.1100		mg/Kg		109	70 - 130		
Toluene	<0.00202	U	0.101	0.1029		mg/Kg		102	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Lab Sample ID: 890-3924-7 MS
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: FS11
Prep Type: Total/NA
Prep Batch: 45146

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.101	0.1076		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.202	0.2281		mg/Kg		113	70 - 130
o-Xylene	<0.00202	U	0.101	0.1105		mg/Kg		110	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 890-3924-7 MSD
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: FS11
Prep Type: Total/NA
Prep Batch: 45146

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.09093		mg/Kg		92	70 - 130	19	35
Toluene	<0.00202	U	0.0990	0.08781		mg/Kg		89	70 - 130	16	35
Ethylbenzene	<0.00202	U	0.0990	0.08939		mg/Kg		90	70 - 130	18	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.1870		mg/Kg		94	70 - 130	20	35
o-Xylene	<0.00202	U	0.0990	0.09094		mg/Kg		92	70 - 130	19	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: MB 880-45147/5-A
Matrix: Solid
Analysis Batch: 45129

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45147

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:36	01/31/23 17:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:36	01/31/23 17:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:36	01/31/23 17:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/31/23 14:36	01/31/23 17:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:36	01/31/23 17:29	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/31/23 14:36	01/31/23 17:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*01/31/23 14:36*	*01/31/23 17:29*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*01/31/23 14:36*	*01/31/23 17:29*	*1*

Lab Sample ID: MB 880-45149/5-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45149

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:43	02/01/23 03:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:43	02/01/23 03:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:43	02/01/23 03:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/31/23 14:43	02/01/23 03:51	1

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Lab Sample ID: MB 880-45149/5-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45149

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 03:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/23 14:43	02/01/23 03:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*01/31/23 14:43*	*02/01/23 03:51*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/31/23 14:43*	*02/01/23 03:51*	*1*

Lab Sample ID: LCS 880-45149/1-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45149

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1036		mg/Kg		104	70 - 130		
Toluene			0.100	0.09150		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.09043		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1882		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09431		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-45149/2-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45149

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1062		mg/Kg		106	70 - 130	2	35
Toluene			0.100	0.09716		mg/Kg		97	70 - 130	6	35
Ethylbenzene			0.100	0.09608		mg/Kg		96	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2004		mg/Kg		100	70 - 130	6	35
o-Xylene			0.100	0.1003		mg/Kg		100	70 - 130	6	35

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

Lab Sample ID: MB 880-45157/5-A
Matrix: Solid
Analysis Batch: 45129

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45157

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 16:30	02/01/23 05:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 16:30	02/01/23 05:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 16:30	02/01/23 05:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/23 16:30	02/01/23 05:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 16:30	02/01/23 05:07	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/23 16:30	02/01/23 05:07	1

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QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	01/31/23 16:30	02/01/23 05:07	1
1,4-Difluorobenzene (Surr)	110		70 - 130	01/31/23 16:30	02/01/23 05:07	1

Lab Sample ID: LCS 880-45157/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45129 — **Prep Batch: 45157**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1016		mg/Kg		102	70 - 130		
Toluene			0.100	0.09370		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09046		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1882		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09035		mg/Kg		90	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: LCSD 880-45157/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45129 — **Prep Batch: 45157**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1032		mg/Kg		103	70 - 130	2	35
Toluene			0.100	0.09625		mg/Kg		96	70 - 130	3	35
Ethylbenzene			0.100	0.09512		mg/Kg		95	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2003		mg/Kg		100	70 - 130	6	35
o-Xylene			0.100	0.09750		mg/Kg		98	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 890-3916-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45129 — **Prep Batch: 45157**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0996	0.1052		mg/Kg		106	70 - 130		
Toluene	<0.00202	U	0.0996	0.09662		mg/Kg		97	70 - 130		
Ethylbenzene	<0.00202	U	0.0996	0.09350		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1944		mg/Kg		98	70 - 130		
o-Xylene	<0.00202	U	0.0996	0.09358		mg/Kg		94	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Lab Sample ID: 890-3916-A-1-D MSD
Matrix: Solid
Analysis Batch: 45129

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45157

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0990	0.1041		mg/Kg		105	70 - 130	1	35
Toluene	<0.00202	U	0.0990	0.09728		mg/Kg		98	70 - 130	1	35
Ethylbenzene	<0.00202	U	0.0990	0.09370		mg/Kg		95	70 - 130	0	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.1958		mg/Kg		99	70 - 130	1	35
o-Xylene	<0.00202	U	0.0990	0.09393		mg/Kg		95	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

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

Lab Sample ID: MB 880-45202/1-A
Matrix: Solid
Analysis Batch: 45222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45202

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/02/23 20:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/02/23 20:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 12:51	02/02/23 20:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/01/23 12:51*	*02/02/23 20:43*	*1*
o-Terphenyl	*94*		*70 - 130*	*02/01/23 12:51*	*02/02/23 20:43*	*1*

Lab Sample ID: LCS 880-45202/2-A
Matrix: Solid
Analysis Batch: 45222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45202

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	777.2		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)			999	928.8		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Lab Sample ID: LCSD 880-45202/3-A
Matrix: Solid
Analysis Batch: 45222

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45202

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	761.0		mg/Kg		76	70 - 130	2	20

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Lab Sample ID: LCSD 880-45202/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45222 — **Prep Batch: 45202**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			999	903.5		mg/Kg		90	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

Lab Sample ID: 890-3898-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45222 — **Prep Batch: 45202**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	852.2		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	61.5		1000	839.9		mg/Kg		78	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*81*		*70 - 130*
o-Terphenyl	*69*	*S1-*	*70 - 130*

Lab Sample ID: 890-3898-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45222 — **Prep Batch: 45202**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	868.7		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	61.5		998	856.1		mg/Kg		80	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*70*		*70 - 130*

Lab Sample ID: MB 880-45213/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45301 — **Prep Batch: 45213**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 08:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 08:32	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 14:47	02/03/23 08:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*02/01/23 14:47*	*02/03/23 08:32*	*1*
o-Terphenyl	*139*	*S1+*	*70 - 130*	*02/01/23 14:47*	*02/03/23 08:32*	*1*

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QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Lab Sample ID: LCS 880-45213/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45301 — **Prep Batch: 45213**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	1004		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)			999	987.9		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*91*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Lab Sample ID: LCSD 880-45213/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45301 — **Prep Batch: 45213**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	945.3		mg/Kg		95	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			999	980.0		mg/Kg		98	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*94*		*70 - 130*

Lab Sample ID: 890-3924-7 MS — **Client Sample ID: FS11**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45301 — **Prep Batch: 45213**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	923.2		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1042		mg/Kg		100	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: 890-3924-7 MSD — **Client Sample ID: FS11**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45301 — **Prep Batch: 45213**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	937.3		mg/Kg		90	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1075		mg/Kg		103	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Lab Sample ID: 890-3924-7 MSD
Matrix: Solid
Analysis Batch: 45301

Client Sample ID: FS11
Prep Type: Total/NA
Prep Batch: 45213

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	107		70 - 130

Lab Sample ID: MB 880-45214/1-A
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45214

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 09:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 09:09	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 09:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	02/01/23 15:22	02/03/23 09:09	1
o-Terphenyl	102		70 - 130	02/01/23 15:22	02/03/23 09:09	1

Lab Sample ID: LCS 880-45214/2-A
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45214

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	861.4		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)			999	983.6		mg/Kg		98	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: LCSD 880-45214/3-A
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45214

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	830.8		mg/Kg		83	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			999	938.1		mg/Kg		94	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	84		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Lab Sample ID: 890-3911-A-1-F MS
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 45214

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	814.9		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	956.9		mg/Kg		94	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Lab Sample ID: 890-3911-A-1-G MSD
Matrix: Solid
Analysis Batch: 45303

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 45214

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	840.6		mg/Kg		81	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	972.0		mg/Kg		96	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44791/1-A
Matrix: Solid
Analysis Batch: 44924

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/23 15:24	1

Lab Sample ID: LCS 880-44791/2-A
Matrix: Solid
Analysis Batch: 44924

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	262.3		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-44791/3-A
Matrix: Solid
Analysis Batch: 44924

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	271.7		mg/Kg		109	90 - 110	4	20

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3924-1 MS — **Client Sample ID: FS01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	366		251	622.4		mg/Kg		102	90 - 110

Lab Sample ID: 890-3924-1 MSD — **Client Sample ID: FS01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	366		251	621.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-3924-11 MS — **Client Sample ID: FS18**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	393	F1	249	670.9	F1	mg/Kg		112	90 - 110

Lab Sample ID: 890-3924-11 MSD — **Client Sample ID: FS18**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	393	F1	249	671.3	F1	mg/Kg		112	90 - 110	0	20

Lab Sample ID: MB 880-44792/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44926

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/27/23 19:00	1

Lab Sample ID: LCS 880-44792/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44926

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	266.0		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-44792/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44926

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	265.4		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-3924-20 MS — **Client Sample ID: FS27**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 44926

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	13.2		248	274.4		mg/Kg		105	90 - 110

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-3924-20 MSD
Matrix: Solid
Analysis Batch: 44926

Client Sample ID: FS27
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	13.2		248	275.0		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

GC VOA

Analysis Batch: 45129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-1	FS01	Total/NA	Solid	8021B	45157
890-3924-2	FS02	Total/NA	Solid	8021B	45157
890-3924-3	FS05	Total/NA	Solid	8021B	45157
890-3924-4	FS06	Total/NA	Solid	8021B	45157
890-3924-5	FS09	Total/NA	Solid	8021B	45157
890-3924-6	FS10	Total/NA	Solid	8021B	45157
MB 880-45147/5-A	Method Blank	Total/NA	Solid	8021B	45147
MB 880-45157/5-A	Method Blank	Total/NA	Solid	8021B	45157
LCS 880-45157/1-A	Lab Control Sample	Total/NA	Solid	8021B	45157
LCSD 880-45157/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45157
890-3916-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	45157
890-3916-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45157

Analysis Batch: 45131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-7	FS11	Total/NA	Solid	8021B	45146
890-3924-8	FS12	Total/NA	Solid	8021B	45146
890-3924-9	FS13	Total/NA	Solid	8021B	45146
890-3924-10	FS17	Total/NA	Solid	8021B	45146
890-3924-11	FS18	Total/NA	Solid	8021B	45146
890-3924-12	FS19	Total/NA	Solid	8021B	45146
890-3924-13	FS20	Total/NA	Solid	8021B	45146
890-3924-14	FS21	Total/NA	Solid	8021B	45146
890-3924-15	FS22	Total/NA	Solid	8021B	45146
890-3924-16	FS23	Total/NA	Solid	8021B	45146
890-3924-17	FS24	Total/NA	Solid	8021B	45146
890-3924-18	FS25	Total/NA	Solid	8021B	45146
890-3924-19	FS26	Total/NA	Solid	8021B	45146
890-3924-20	FS27	Total/NA	Solid	8021B	45146
890-3924-21	FS28	Total/NA	Solid	8021B	45146
890-3924-22	FS29	Total/NA	Solid	8021B	45146
890-3924-23	FS30	Total/NA	Solid	8021B	45146
890-3924-24	FS31	Total/NA	Solid	8021B	45146
890-3924-25	FS32	Total/NA	Solid	8021B	45146
890-3924-26	FS33	Total/NA	Solid	8021B	45146
890-3924-27	FS34	Total/NA	Solid	8021B	45149
MB 880-45146/5-A	Method Blank	Total/NA	Solid	8021B	45146
MB 880-45149/5-A	Method Blank	Total/NA	Solid	8021B	45149
LCS 880-45146/1-A	Lab Control Sample	Total/NA	Solid	8021B	45146
LCS 880-45149/1-A	Lab Control Sample	Total/NA	Solid	8021B	45149
LCSD 880-45146/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45146
LCSD 880-45149/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45149
890-3924-7 MS	FS11	Total/NA	Solid	8021B	45146
890-3924-7 MSD	FS11	Total/NA	Solid	8021B	45146

Prep Batch: 45146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-7	FS11	Total/NA	Solid	5035	
890-3924-8	FS12	Total/NA	Solid	5035	
890-3924-9	FS13	Total/NA	Solid	5035	
890-3924-10	FS17	Total/NA	Solid	5035	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

GC VOA (Continued)

Prep Batch: 45146 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-11	FS18	Total/NA	Solid	5035	
890-3924-12	FS19	Total/NA	Solid	5035	
890-3924-13	FS20	Total/NA	Solid	5035	
890-3924-14	FS21	Total/NA	Solid	5035	
890-3924-15	FS22	Total/NA	Solid	5035	
890-3924-16	FS23	Total/NA	Solid	5035	
890-3924-17	FS24	Total/NA	Solid	5035	
890-3924-18	FS25	Total/NA	Solid	5035	
890-3924-19	FS26	Total/NA	Solid	5035	
890-3924-20	FS27	Total/NA	Solid	5035	
890-3924-21	FS28	Total/NA	Solid	5035	
890-3924-22	FS29	Total/NA	Solid	5035	
890-3924-23	FS30	Total/NA	Solid	5035	
890-3924-24	FS31	Total/NA	Solid	5035	
890-3924-25	FS32	Total/NA	Solid	5035	
890-3924-26	FS33	Total/NA	Solid	5035	
MB 880-45146/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45146/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45146/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3924-7 MS	FS11	Total/NA	Solid	5035	
890-3924-7 MSD	FS11	Total/NA	Solid	5035	

Prep Batch: 45147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45147/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-27	FS34	Total/NA	Solid	5035	
MB 880-45149/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45149/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45149/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 45157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-1	FS01	Total/NA	Solid	5035	
890-3924-2	FS02	Total/NA	Solid	5035	
890-3924-3	FS05	Total/NA	Solid	5035	
890-3924-4	FS06	Total/NA	Solid	5035	
890-3924-5	FS09	Total/NA	Solid	5035	
890-3924-6	FS10	Total/NA	Solid	5035	
MB 880-45157/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45157/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45157/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3916-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-3916-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-1	FS01	Total/NA	Solid	Total BTEX	
890-3924-2	FS02	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

GC VOA (Continued)

Analysis Batch: 45195 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-3	FS05	Total/NA	Solid	Total BTEX	
890-3924-4	FS06	Total/NA	Solid	Total BTEX	
890-3924-5	FS09	Total/NA	Solid	Total BTEX	
890-3924-6	FS10	Total/NA	Solid	Total BTEX	
890-3924-7	FS11	Total/NA	Solid	Total BTEX	
890-3924-8	FS12	Total/NA	Solid	Total BTEX	
890-3924-9	FS13	Total/NA	Solid	Total BTEX	
890-3924-10	FS17	Total/NA	Solid	Total BTEX	
890-3924-11	FS18	Total/NA	Solid	Total BTEX	
890-3924-12	FS19	Total/NA	Solid	Total BTEX	
890-3924-13	FS20	Total/NA	Solid	Total BTEX	
890-3924-14	FS21	Total/NA	Solid	Total BTEX	
890-3924-15	FS22	Total/NA	Solid	Total BTEX	
890-3924-16	FS23	Total/NA	Solid	Total BTEX	
890-3924-17	FS24	Total/NA	Solid	Total BTEX	
890-3924-18	FS25	Total/NA	Solid	Total BTEX	
890-3924-19	FS26	Total/NA	Solid	Total BTEX	
890-3924-20	FS27	Total/NA	Solid	Total BTEX	
890-3924-21	FS28	Total/NA	Solid	Total BTEX	
890-3924-22	FS29	Total/NA	Solid	Total BTEX	
890-3924-23	FS30	Total/NA	Solid	Total BTEX	
890-3924-24	FS31	Total/NA	Solid	Total BTEX	
890-3924-25	FS32	Total/NA	Solid	Total BTEX	
890-3924-26	FS33	Total/NA	Solid	Total BTEX	
890-3924-27	FS34	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-1	FS01	Total/NA	Solid	8015NM Prep	
890-3924-2	FS02	Total/NA	Solid	8015NM Prep	
890-3924-3	FS05	Total/NA	Solid	8015NM Prep	
890-3924-4	FS06	Total/NA	Solid	8015NM Prep	
890-3924-5	FS09	Total/NA	Solid	8015NM Prep	
890-3924-6	FS10	Total/NA	Solid	8015NM Prep	
MB 880-45202/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45202/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45202/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3898-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3898-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 45213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-7	FS11	Total/NA	Solid	8015NM Prep	
890-3924-8	FS12	Total/NA	Solid	8015NM Prep	
890-3924-9	FS13	Total/NA	Solid	8015NM Prep	
890-3924-10	FS17	Total/NA	Solid	8015NM Prep	
890-3924-11	FS18	Total/NA	Solid	8015NM Prep	
890-3924-12	FS19	Total/NA	Solid	8015NM Prep	
890-3924-13	FS20	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

GC Semi VOA (Continued)

Prep Batch: 45213 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-14	FS21	Total/NA	Solid	8015NM Prep	
890-3924-15	FS22	Total/NA	Solid	8015NM Prep	
890-3924-16	FS23	Total/NA	Solid	8015NM Prep	
890-3924-17	FS24	Total/NA	Solid	8015NM Prep	
890-3924-18	FS25	Total/NA	Solid	8015NM Prep	
890-3924-19	FS26	Total/NA	Solid	8015NM Prep	
890-3924-20	FS27	Total/NA	Solid	8015NM Prep	
890-3924-21	FS28	Total/NA	Solid	8015NM Prep	
890-3924-22	FS29	Total/NA	Solid	8015NM Prep	
890-3924-23	FS30	Total/NA	Solid	8015NM Prep	
890-3924-24	FS31	Total/NA	Solid	8015NM Prep	
890-3924-25	FS32	Total/NA	Solid	8015NM Prep	
890-3924-26	FS33	Total/NA	Solid	8015NM Prep	
MB 880-45213/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45213/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45213/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3924-7 MS	FS11	Total/NA	Solid	8015NM Prep	
890-3924-7 MSD	FS11	Total/NA	Solid	8015NM Prep	

Prep Batch: 45214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-27	FS34	Total/NA	Solid	8015NM Prep	
MB 880-45214/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-45214/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45214/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3911-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3911-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-1	FS01	Total/NA	Solid	8015B NM	45202
890-3924-2	FS02	Total/NA	Solid	8015B NM	45202
890-3924-3	FS05	Total/NA	Solid	8015B NM	45202
890-3924-4	FS06	Total/NA	Solid	8015B NM	45202
890-3924-5	FS09	Total/NA	Solid	8015B NM	45202
890-3924-6	FS10	Total/NA	Solid	8015B NM	45202
MB 880-45202/1-A	Method Blank	Total/NA	Solid	8015B NM	45202
LCS 880-45202/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45202
LCSD 880-45202/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45202
890-3898-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	45202
890-3898-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45202

Analysis Batch: 45301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-7	FS11	Total/NA	Solid	8015B NM	45213
890-3924-8	FS12	Total/NA	Solid	8015B NM	45213
890-3924-9	FS13	Total/NA	Solid	8015B NM	45213
890-3924-10	FS17	Total/NA	Solid	8015B NM	45213
890-3924-11	FS18	Total/NA	Solid	8015B NM	45213
890-3924-12	FS19	Total/NA	Solid	8015B NM	45213
890-3924-13	FS20	Total/NA	Solid	8015B NM	45213

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

GC Semi VOA (Continued)

Analysis Batch: 45301 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-14	FS21	Total/NA	Solid	8015B NM	45213
890-3924-15	FS22	Total/NA	Solid	8015B NM	45213
890-3924-16	FS23	Total/NA	Solid	8015B NM	45213
890-3924-17	FS24	Total/NA	Solid	8015B NM	45213
890-3924-18	FS25	Total/NA	Solid	8015B NM	45213
890-3924-19	FS26	Total/NA	Solid	8015B NM	45213
890-3924-20	FS27	Total/NA	Solid	8015B NM	45213
890-3924-21	FS28	Total/NA	Solid	8015B NM	45213
890-3924-22	FS29	Total/NA	Solid	8015B NM	45213
890-3924-23	FS30	Total/NA	Solid	8015B NM	45213
890-3924-24	FS31	Total/NA	Solid	8015B NM	45213
890-3924-25	FS32	Total/NA	Solid	8015B NM	45213
890-3924-26	FS33	Total/NA	Solid	8015B NM	45213
MB 880-45213/1-A	Method Blank	Total/NA	Solid	8015B NM	45213
LCS 880-45213/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45213
LCSD 880-45213/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45213
890-3924-7 MS	FS11	Total/NA	Solid	8015B NM	45213
890-3924-7 MSD	FS11	Total/NA	Solid	8015B NM	45213

Analysis Batch: 45303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-27	FS34	Total/NA	Solid	8015B NM	45214
MB 880-45214/1-A	Method Blank	Total/NA	Solid	8015B NM	45214
LCS 880-45214/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45214
LCSD 880-45214/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45214
890-3911-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	45214
890-3911-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45214

Analysis Batch: 45393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-1	FS01	Total/NA	Solid	8015 NM	
890-3924-2	FS02	Total/NA	Solid	8015 NM	
890-3924-3	FS05	Total/NA	Solid	8015 NM	
890-3924-4	FS06	Total/NA	Solid	8015 NM	
890-3924-5	FS09	Total/NA	Solid	8015 NM	
890-3924-6	FS10	Total/NA	Solid	8015 NM	
890-3924-7	FS11	Total/NA	Solid	8015 NM	
890-3924-8	FS12	Total/NA	Solid	8015 NM	
890-3924-9	FS13	Total/NA	Solid	8015 NM	
890-3924-10	FS17	Total/NA	Solid	8015 NM	
890-3924-11	FS18	Total/NA	Solid	8015 NM	
890-3924-12	FS19	Total/NA	Solid	8015 NM	
890-3924-13	FS20	Total/NA	Solid	8015 NM	
890-3924-14	FS21	Total/NA	Solid	8015 NM	
890-3924-15	FS22	Total/NA	Solid	8015 NM	
890-3924-16	FS23	Total/NA	Solid	8015 NM	
890-3924-17	FS24	Total/NA	Solid	8015 NM	
890-3924-18	FS25	Total/NA	Solid	8015 NM	
890-3924-19	FS26	Total/NA	Solid	8015 NM	
890-3924-20	FS27	Total/NA	Solid	8015 NM	
890-3924-21	FS28	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

GC Semi VOA (Continued)

Analysis Batch: 45393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-22	FS29	Total/NA	Solid	8015 NM	
890-3924-23	FS30	Total/NA	Solid	8015 NM	
890-3924-24	FS31	Total/NA	Solid	8015 NM	
890-3924-25	FS32	Total/NA	Solid	8015 NM	
890-3924-26	FS33	Total/NA	Solid	8015 NM	
890-3924-27	FS34	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-1	FS01	Soluble	Solid	DI Leach	
890-3924-2	FS02	Soluble	Solid	DI Leach	
890-3924-3	FS05	Soluble	Solid	DI Leach	
890-3924-4	FS06	Soluble	Solid	DI Leach	
890-3924-5	FS09	Soluble	Solid	DI Leach	
890-3924-6	FS10	Soluble	Solid	DI Leach	
890-3924-7	FS11	Soluble	Solid	DI Leach	
890-3924-8	FS12	Soluble	Solid	DI Leach	
890-3924-9	FS13	Soluble	Solid	DI Leach	
890-3924-10	FS17	Soluble	Solid	DI Leach	
890-3924-11	FS18	Soluble	Solid	DI Leach	
890-3924-12	FS19	Soluble	Solid	DI Leach	
890-3924-13	FS20	Soluble	Solid	DI Leach	
890-3924-14	FS21	Soluble	Solid	DI Leach	
890-3924-15	FS22	Soluble	Solid	DI Leach	
890-3924-16	FS23	Soluble	Solid	DI Leach	
890-3924-17	FS24	Soluble	Solid	DI Leach	
890-3924-18	FS25	Soluble	Solid	DI Leach	
890-3924-19	FS26	Soluble	Solid	DI Leach	
MB 880-44791/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44791/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44791/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3924-1 MS	FS01	Soluble	Solid	DI Leach	
890-3924-1 MSD	FS01	Soluble	Solid	DI Leach	
890-3924-11 MS	FS18	Soluble	Solid	DI Leach	
890-3924-11 MSD	FS18	Soluble	Solid	DI Leach	

Leach Batch: 44792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-20	FS27	Soluble	Solid	DI Leach	
890-3924-21	FS28	Soluble	Solid	DI Leach	
890-3924-22	FS29	Soluble	Solid	DI Leach	
890-3924-23	FS30	Soluble	Solid	DI Leach	
890-3924-24	FS31	Soluble	Solid	DI Leach	
890-3924-25	FS32	Soluble	Solid	DI Leach	
890-3924-26	FS33	Soluble	Solid	DI Leach	
890-3924-27	FS34	Soluble	Solid	DI Leach	
MB 880-44792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

HPLC/IC (Continued)

Leach Batch: 44792 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-20 MS	FS27	Soluble	Solid	DI Leach	
890-3924-20 MSD	FS27	Soluble	Solid	DI Leach	

Analysis Batch: 44924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-1	FS01	Soluble	Solid	300.0	44791
890-3924-2	FS02	Soluble	Solid	300.0	44791
890-3924-3	FS05	Soluble	Solid	300.0	44791
890-3924-4	FS06	Soluble	Solid	300.0	44791
890-3924-5	FS09	Soluble	Solid	300.0	44791
890-3924-6	FS10	Soluble	Solid	300.0	44791
890-3924-7	FS11	Soluble	Solid	300.0	44791
890-3924-8	FS12	Soluble	Solid	300.0	44791
890-3924-9	FS13	Soluble	Solid	300.0	44791
890-3924-10	FS17	Soluble	Solid	300.0	44791
890-3924-11	FS18	Soluble	Solid	300.0	44791
890-3924-12	FS19	Soluble	Solid	300.0	44791
890-3924-13	FS20	Soluble	Solid	300.0	44791
890-3924-14	FS21	Soluble	Solid	300.0	44791
890-3924-15	FS22	Soluble	Solid	300.0	44791
890-3924-16	FS23	Soluble	Solid	300.0	44791
890-3924-17	FS24	Soluble	Solid	300.0	44791
890-3924-18	FS25	Soluble	Solid	300.0	44791
890-3924-19	FS26	Soluble	Solid	300.0	44791
MB 880-44791/1-A	Method Blank	Soluble	Solid	300.0	44791
LCS 880-44791/2-A	Lab Control Sample	Soluble	Solid	300.0	44791
LCSD 880-44791/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44791
890-3924-1 MS	FS01	Soluble	Solid	300.0	44791
890-3924-1 MSD	FS01	Soluble	Solid	300.0	44791
890-3924-11 MS	FS18	Soluble	Solid	300.0	44791
890-3924-11 MSD	FS18	Soluble	Solid	300.0	44791

Analysis Batch: 44926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3924-20	FS27	Soluble	Solid	300.0	44792
890-3924-21	FS28	Soluble	Solid	300.0	44792
890-3924-22	FS29	Soluble	Solid	300.0	44792
890-3924-23	FS30	Soluble	Solid	300.0	44792
890-3924-24	FS31	Soluble	Solid	300.0	44792
890-3924-25	FS32	Soluble	Solid	300.0	44792
890-3924-26	FS33	Soluble	Solid	300.0	44792
890-3924-27	FS34	Soluble	Solid	300.0	44792
MB 880-44792/1-A	Method Blank	Soluble	Solid	300.0	44792
LCS 880-44792/2-A	Lab Control Sample	Soluble	Solid	300.0	44792
LCSD 880-44792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44792
890-3924-20 MS	FS27	Soluble	Solid	300.0	44792
890-3924-20 MSD	FS27	Soluble	Solid	300.0	44792

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS01

Lab Sample ID: 890-3924-1
Matrix: Solid
Date Collected: 01/18/23 10:00
Date Received: 01/23/23 16:24

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	45157	01/31/23 16:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45129	02/01/23 05:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 03:27	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 15:42	CH	EET MID

Client Sample ID: FS02

Lab Sample ID: 890-3924-2
Matrix: Solid
Date Collected: 01/18/23 10:10
Date Received: 01/23/23 16:24

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	45157	01/31/23 16:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45129	02/01/23 06:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 03:47	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 16:01	CH	EET MID

Client Sample ID: FS05

Lab Sample ID: 890-3924-3
Matrix: Solid
Date Collected: 01/18/23 10:45
Date Received: 01/23/23 16:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	45157	01/31/23 16:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45129	02/01/23 06:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 04:07	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 16:07	CH	EET MID

Client Sample ID: FS06

Lab Sample ID: 890-3924-4
Matrix: Solid
Date Collected: 01/18/23 13:20
Date Received: 01/23/23 16:24

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	45157	01/31/23 16:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45129	02/01/23 06:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:53	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS06

Lab Sample ID: 890-3924-4
Matrix: Solid
Date Collected: 01/18/23 13:20
Date Received: 01/23/23 16:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45393	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 04:27	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 16:13	CH	EET MID

Client Sample ID: FS09

Lab Sample ID: 890-3924-5
Matrix: Solid
Date Collected: 01/18/23 13:25
Date Received: 01/23/23 16:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	45157	01/31/23 16:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45129	02/01/23 07:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 04:47	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 16:19	CH	EET MID

Client Sample ID: FS10

Lab Sample ID: 890-3924-6
Matrix: Solid
Date Collected: 01/18/23 13:30
Date Received: 01/23/23 16:24

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	45157	01/31/23 16:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45129	02/01/23 07:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 11:49	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45202	02/01/23 12:51	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45222	02/03/23 05:07	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 16:38	CH	EET MID

Client Sample ID: FS11

Lab Sample ID: 890-3924-7
Matrix: Solid
Date Collected: 01/19/23 08:30
Date Received: 01/23/23 16:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 17:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 11:16	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS11

Date Collected: 01/19/23 08:30
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 16:44	CH	EET MID

Client Sample ID: FS12

Date Collected: 01/19/23 08:35
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 17:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 12:22	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 16:50	CH	EET MID

Client Sample ID: FS13

Date Collected: 01/19/23 08:40
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 18:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 12:45	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 16:56	CH	EET MID

Client Sample ID: FS17

Date Collected: 01/19/23 09:10
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 18:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 13:06	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 17:02	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS18

Lab Sample ID: 890-3924-11
Matrix: Solid
Date Collected: 01/19/23 09:15
Date Received: 01/23/23 16:24

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	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 18:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 13:28	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 17:08	CH	EET MID

Client Sample ID: FS19

Lab Sample ID: 890-3924-12
Matrix: Solid
Date Collected: 01/19/23 09:20
Date Received: 01/23/23 16:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 19:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 13:51	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 17:27	CH	EET MID

Client Sample ID: FS20

Lab Sample ID: 890-3924-13
Matrix: Solid
Date Collected: 01/19/23 09:25
Date Received: 01/23/23 16:24

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	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 19:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 14:12	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 17:33	CH	EET MID

Client Sample ID: FS21

Lab Sample ID: 890-3924-14
Matrix: Solid
Date Collected: 01/19/23 11:00
Date Received: 01/23/23 16:24

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	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 19:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS21
Date Collected: 01/19/23 11:00
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 14:34	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 17:51	CH	EET MID

Client Sample ID: FS22
Date Collected: 01/19/23 11:05
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 20:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 14:55	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 17:58	CH	EET MID

Client Sample ID: FS23
Date Collected: 01/19/23 11:25
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-16
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	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 20:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 15:16	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 18:04	CH	EET MID

Client Sample ID: FS24
Date Collected: 01/19/23 11:30
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-17
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	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 22:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 16:00	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS24

Date Collected: 01/19/23 11:30
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 18:10	CH	EET MID

Client Sample ID: FS25

Date Collected: 01/19/23 11:35
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-18
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	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 22:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/03/23 16:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 16:22	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 18:16	CH	EET MID

Client Sample ID: FS26

Date Collected: 01/19/23 12:00
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 22:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 16:43	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44791	01/26/23 08:31	CH	EET MID
Soluble	Analysis	300.0		1			44924	01/27/23 18:22	CH	EET MID

Client Sample ID: FS27

Date Collected: 01/19/23 12:05
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 23:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 17:05	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 19:18	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS28

Lab Sample ID: 890-3924-21
Matrix: Solid
Date Collected: 01/19/23 12:10
Date Received: 01/23/23 16:24

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	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 23:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 17:26	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 19:36	CH	EET MID

Client Sample ID: FS29

Lab Sample ID: 890-3924-22
Matrix: Solid
Date Collected: 01/19/23 12:30
Date Received: 01/23/23 16:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	01/31/23 23:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 17:48	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 19:43	CH	EET MID

Client Sample ID: FS30

Lab Sample ID: 890-3924-23
Matrix: Solid
Date Collected: 01/19/23 12:35
Date Received: 01/23/23 16:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 00:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 18:09	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 19:49	CH	EET MID

Client Sample ID: FS31

Lab Sample ID: 890-3924-24
Matrix: Solid
Date Collected: 01/19/23 12:40
Date Received: 01/23/23 16:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 00:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS31

Date Collected: 01/19/23 12:40
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-24
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45393	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 18:31	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 19:55	CH	EET MID

Client Sample ID: FS32

Date Collected: 01/19/23 13:40
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-25
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	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 00:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 18:54	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 20:13	CH	EET MID

Client Sample ID: FS33

Date Collected: 01/19/23 13:45
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-26
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	45146	01/31/23 14:29	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 01:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/05/23 09:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45213	02/01/23 14:47	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45301	02/03/23 19:16	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 20:20	CH	EET MID

Client Sample ID: FS34

Date Collected: 01/19/23 13:50
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-27
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	45149	01/31/23 14:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 11:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45195	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45393	02/04/23 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	45214	02/01/23 15:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45303	02/03/23 17:15	AJ	EET MID

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Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Client Sample ID: FS34

Date Collected: 01/19/23 13:50
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3924-27

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	44792	01/26/23 08:32	CH	EET MID
Soluble	Analysis	300.0		1			44926	01/27/23 20:26	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: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3924-1
SDG: 03D2057047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3924-1	FS01	Solid	01/18/23 10:00	01/23/23 16:24	2.5'
890-3924-2	FS02	Solid	01/18/23 10:10	01/23/23 16:24	2.5'
890-3924-3	FS05	Solid	01/18/23 10:45	01/23/23 16:24	2.5'
890-3924-4	FS06	Solid	01/18/23 13:20	01/23/23 16:24	2.5'
890-3924-5	FS09	Solid	01/18/23 13:25	01/23/23 16:24	2.5'
890-3924-6	FS10	Solid	01/18/23 13:30	01/23/23 16:24	2.5'
890-3924-7	FS11	Solid	01/19/23 08:30	01/23/23 16:24	2.5'
890-3924-8	FS12	Solid	01/19/23 08:35	01/23/23 16:24	0.5'
890-3924-9	FS13	Solid	01/19/23 08:40	01/23/23 16:24	0.5'
890-3924-10	FS17	Solid	01/19/23 09:10	01/23/23 16:24	2.5'
890-3924-11	FS18	Solid	01/19/23 09:15	01/23/23 16:24	2.5'
890-3924-12	FS19	Solid	01/19/23 09:20	01/23/23 16:24	2'
890-3924-13	FS20	Solid	01/19/23 09:25	01/23/23 16:24	0.5'
890-3924-14	FS21	Solid	01/19/23 11:00	01/23/23 16:24	2.5'
890-3924-15	FS22	Solid	01/19/23 11:05	01/23/23 16:24	0.5'
890-3924-16	FS23	Solid	01/19/23 11:25	01/23/23 16:24	0.5'
890-3924-17	FS24	Solid	01/19/23 11:30	01/23/23 16:24	0.5'
890-3924-18	FS25	Solid	01/19/23 11:35	01/23/23 16:24	0.5'
890-3924-19	FS26	Solid	01/19/23 12:00	01/23/23 16:24	0.5'
890-3924-20	FS27	Solid	01/19/23 12:05	01/23/23 16:24	0.5'
890-3924-21	FS28	Solid	01/19/23 12:10	01/23/23 16:24	0.5'
890-3924-22	FS29	Solid	01/19/23 12:30	01/23/23 16:24	0.5'
890-3924-23	FS30	Solid	01/19/23 12:35	01/23/23 16:24	0.5'
890-3924-24	FS31	Solid	01/19/23 12:40	01/23/23 16:24	0.5'
890-3924-25	FS32	Solid	01/19/23 13:40	01/23/23 16:24	2'
890-3924-26	FS33	Solid	01/19/23 13:45	01/23/23 16:24	0.5'
890-3924-27	FS34	Solid	01/19/23 13:50	01/23/23 16:24	0.5'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Hadlie Green	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:	432-557-8895	Email:	kjennings@ensolum.com, hgreen@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:	Jalmat Yates Sant Unit 170	Turn Around	
Project Number:	03D2057047	☑ Routine ☐ Rush	
Project Location:	Lea	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TDM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2	
Total Containers:		Corrected Temperature:	2.0	

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_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)	Sample Comments
FS01	Soil	1/18/2023	1000	2.5'	Comp	1		x	x	x	
FS02	Soil	1/18/2023	1010	2.5'	Comp	1		x	x	x	
FS05	Soil	1/18/2023	1045	2.5'	Comp	1		x	x	x	
FS06	Soil	1/18/2023	1320	2.5'	Comp	1		x	x	x	
FS09	Soil	1/18/2023	1325	2.5'	Comp	1		x	x	x	
FS10	Soil	1/18/2023	1330	2.5'	Comp	1		x	x	x	
FS11	Soil	1/19/2023	830	2.5'	Comp	1		x	x	x	
FS12	Soil	1/19/2023	835	0.5'	Comp	1		x	x	x	
FS13	Soil	1/19/2023	840	0.5'	Comp	1		x	x	x	
FS17	Soil	1/19/2023	910	2.5'	Comp	1		x	x	x	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag 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 Peter Van Patten	Amanda Stuff	1-23-23 1624			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 3

Project Manager:	Hadlie Green	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:	432-557-8895	Email:	kjennings@ensolum.com, hgreen@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:	Jalmat Yates Sant Unit 170	Turn Around	
Project Number:	03D2057047	☑ Routine ☐ Rush	
Project Location:	Lea	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	0	
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

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	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
FS18	Soil	1/19/2023	915	2.5'	Comp	1		x	x	x	
FS19	Soil	1/19/2023	920	2'	Comp	1		x	x	x	
FS20	Soil	1/19/2023	925	2'	Comp	1		x	x	x	
FS21	Soil	1/19/2023	1100	0.5'	Comp	1		x	x	x	
FS22	Soil	1/19/2023	1105	2.5'	Comp	1		x	x	x	
FS23	Soil	1/19/2023	1125	0.5'	Comp	1		x	x	x	
FS24	Soil	1/19/2023	1130	0.5'	Comp	1		x	x	x	
FS25	Soil	1/19/2023	1135	0.5'	Comp	1		x	x	x	
FS26	Soil	1/19/2023	1200	0.5'	Comp	1		x	x	x	
FS27	Soil	1/19/2023	1205	0.5'	Comp	1		x	x	x	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag 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 Peter Van Patten	Amanda Stuff	1-23-23 1602	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 3 of 3

Project Manager:	Hadlie Green	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:	432-557-8895	Email:	kjennings@ensolum.com, hgreen@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:	Jalmat Yates Sant Unit 170	Turn Around	
Project Number:	03D2057047	☑ Routine ☐ Rush	
Project Location:	Lea	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

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	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
FS28	Soil	1/19/2023	1210	0.5'	Comp	1		x	x	x	
FS29	Soil	1/19/2023	1230	0.5'	Comp	1		x	x	x	
FS30	Soil	1/19/2023	1235	0.5'	Comp	1		x	x	x	
FS31	Soil	1/19/2023	1240	2'	Comp	1		x	x	x	
FS32	Soil	1/19/2023	1340	0.5'	Comp	1		x	x	x	
FS33	Soil	1/19/2023	1345	0.5'	Comp	1		x	x	x	
FS34	Soil	1/19/2023	1350	0.5'	Comp	1		x	x	x	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag 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	Peter Van Patten	Amanda Stuff	1-23-23 1124			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3924-1
SDG Number: 03D2057047

Login Number: 3924
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: 890-3924-1
SDG Number: 03D2057047

Login Number: 3924
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/25/23 12:13 PM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kalei Jennings
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/4/2023 9:29:20 AM

JOB DESCRIPTION

Jalmat Yates Sant Unit 170
SDG NUMBER 03D2057047

JOB NUMBER

890-3927-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

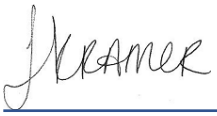
See page two for job notes and contact information.

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
2/4/2023 9:29:20 AM

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

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Laboratory Job ID: 890-3927-1
SDG: 03D2057047

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Job ID: 890-3927-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3927-1

Receipt
The samples were received on 1/23/2023 4:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW01 (890-3927-1), SW02 (890-3927-2), SW03 (890-3927-3), SW04 (890-3927-4), SW05 (890-3927-5) and SW06 (890-3927-6).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-45146 and analytical batch 880-45131 was outside the control limits.

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Client Sample ID: SW01

Lab Sample ID: 890-3927-1
Matrix: Solid
Date Collected: 01/19/23 13:55
Date Received: 01/23/23 16:24
Sample Depth: 0-2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 05:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 05:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 05:35	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/31/23 14:43	02/01/23 05:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 05:35	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/31/23 14:43	02/01/23 05:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*01/31/23 14:43*	*02/01/23 05:35*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*01/31/23 14:43*	*02/01/23 05:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/04/23 09:40	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		02/01/23 15:22	02/03/23 17:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/23 15:22	02/03/23 17:35	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 15:22	02/03/23 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/01/23 15:22*	*02/03/23 17:35*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/01/23 15:22*	*02/03/23 17:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**87.8**		4.95		mg/Kg			01/29/23 18:19	1

Client Sample ID: SW02

Lab Sample ID: 890-3927-2
Matrix: Solid
Date Collected: 01/19/23 14:10
Date Received: 01/23/23 16:24
Sample Depth: 0-2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:43	02/01/23 05:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:43	02/01/23 05:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:43	02/01/23 05:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/23 14:43	02/01/23 05:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/23 14:43	02/01/23 05:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/23 14:43	02/01/23 05:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*01/31/23 14:43*	*02/01/23 05:55*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Client Sample ID: SW02

Lab Sample ID: 890-3927-2
Matrix: Solid
Date Collected: 01/19/23 14:10
Date Received: 01/23/23 16:24
Sample Depth: 0-2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*01/31/23 14:43*	*02/01/23 05:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/04/23 09:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/01/23 15:22	02/03/23 17:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/01/23 15:22	02/03/23 17:56	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/01/23 15:22	02/03/23 17:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*78*		*70 - 130*	*02/01/23 15:22*	*02/03/23 17:56*	*1*
o-Terphenyl	*79*		*70 - 130*	*02/01/23 15:22*	*02/03/23 17:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36.3**		4.96	mg/Kg			01/29/23 18:25	1

Client Sample ID: SW03

Lab Sample ID: 890-3927-3
Matrix: Solid
Date Collected: 01/19/23 14:15
Date Received: 01/23/23 16:24
Sample Depth: 0-2.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:43	02/01/23 06:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:43	02/01/23 06:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:43	02/01/23 06:16	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/31/23 14:43	02/01/23 06:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/31/23 14:43	02/01/23 06:16	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/31/23 14:43	02/01/23 06:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*01/31/23 14:43*	*02/01/23 06:16*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*01/31/23 14:43*	*02/01/23 06:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/04/23 09:40	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Client Sample ID: SW03

Lab Sample ID: 890-3927-3
Matrix: Solid
Date Collected: 01/19/23 14:15
Date Received: 01/23/23 16:24
Sample Depth: 0-2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*02/01/23 15:22*	*02/03/23 18:17*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/01/23 15:22*	*02/03/23 18:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**363**		4.97		mg/Kg			01/29/23 18:31	1

Client Sample ID: SW04

Lab Sample ID: 890-3927-4
Matrix: Solid
Date Collected: 01/19/23 14:20
Date Received: 01/23/23 16:24
Sample Depth: 0-2'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:43	02/01/23 06:36	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:43	02/01/23 06:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:43	02/01/23 06:36	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/31/23 14:43	02/01/23 06:36	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/31/23 14:43	02/01/23 06:36	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/31/23 14:43	02/01/23 06:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*01/31/23 14:43*	*02/01/23 06:36*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*01/31/23 14:43*	*02/01/23 06:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/04/23 09:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*02/01/23 15:22*	*02/03/23 18:38*	*1*
o-Terphenyl	*75*		*70 - 130*	*02/01/23 15:22*	*02/03/23 18:38*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Client Sample ID: SW04

Lab Sample ID: 890-3927-4
Matrix: Solid
Date Collected: 01/19/23 14:20
Date Received: 01/23/23 16:24
Sample Depth: 0-2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.5		5.00		mg/Kg			01/29/23 18:50	1

Client Sample ID: SW05

Lab Sample ID: 890-3927-5
Matrix: Solid
Date Collected: 01/19/23 14:40
Date Received: 01/23/23 16:24
Sample Depth: 0.5-2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 06:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 06:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 06:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/31/23 14:43	02/01/23 06:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 06:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/31/23 14:43	02/01/23 06:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*01/31/23 14:43*	*02/01/23 06:57*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*01/31/23 14:43*	*02/01/23 06:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/04/23 09:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*02/01/23 15:22*	*02/03/23 18:58*	*1*
o-Terphenyl	*82*		*70 - 130*	*02/01/23 15:22*	*02/03/23 18:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.7		4.98		mg/Kg			01/29/23 18:56	1

Client Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Client Sample ID: SW06

Date Collected: 01/19/23 14:50
Date Received: 01/23/23 16:24
Sample Depth: 0.5'-2.5

Lab Sample ID: 890-3927-6

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		01/31/23 14:43	02/01/23 07:17	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:43	02/01/23 07:17	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:43	02/01/23 07:17	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/31/23 14:43	02/01/23 07:17	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/31/23 14:43	02/01/23 07:17	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/31/23 14:43	02/01/23 07:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*01/31/23 14:43*	*02/01/23 07:17*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*01/31/23 14:43*	*02/01/23 07:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/01/23 12:31	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**221**		50.0		mg/Kg			02/04/23 09:40	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		02/01/23 15:22	02/03/23 19:19	1
Diesel Range Organics (Over C10-C28)	**221**		50.0		mg/Kg		02/01/23 15:22	02/03/23 19:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/23 15:22	02/03/23 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/01/23 15:22*	*02/03/23 19:19*	*1*
o-Terphenyl	*72*		*70 - 130*	*02/01/23 15:22*	*02/03/23 19:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**109**		4.99		mg/Kg			01/29/23 19:02	1

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Method: 8021B - Volatile Organic Compounds (GC)

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) BFB1 (70-130)	DFBZ1 (70-130)
890-3920-A-1-B MS	Matrix Spike	106	100
890-3920-A-1-C MSD	Matrix Spike Duplicate	92	109
890-3927-1	SW01	110	79
890-3927-2	SW02	86	96
890-3927-3	SW03	114	87
890-3927-4	SW04	94	89
890-3927-5	SW05	100	82
890-3927-6	SW06	80	99
LCS 880-45149/1-A	Lab Control Sample	101	108
LCSD 880-45149/2-A	Lab Control Sample Dup	103	104
MB 880-45146/5-A	Method Blank	68 S1-	92
MB 880-45149/5-A	Method Blank	74	91

Surrogate Legend

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

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

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) 1CO1 (70-130)	OTPH1 (70-130)
890-3911-A-1-F MS	Matrix Spike	84	75
890-3911-A-1-G MSD	Matrix Spike Duplicate	87	75
890-3927-1	SW01	70	71
890-3927-2	SW02	78	79
890-3927-3	SW03	71	71
890-3927-4	SW04	74	75
890-3927-5	SW05	79	82
890-3927-6	SW06	72	72
LCS 880-45214/2-A	Lab Control Sample	87	84
LCSD 880-45214/3-A	Lab Control Sample Dup	87	84
MB 880-45214/1-A	Method Blank	96	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-45146/5-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45146

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:29	01/31/23 17:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/23 14:29	01/31/23 17:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*01/31/23 14:29*	*01/31/23 17:14*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*01/31/23 14:29*	*01/31/23 17:14*	*1*

Lab Sample ID: MB 880-45149/5-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45149

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 03:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 03:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 03:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/23 14:43	02/01/23 03:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/23 14:43	02/01/23 03:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/23 14:43	02/01/23 03:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*01/31/23 14:43*	*02/01/23 03:51*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*01/31/23 14:43*	*02/01/23 03:51*	*1*

Lab Sample ID: LCS 880-45149/1-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45149

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1036		mg/Kg		104	70 - 130		
Toluene			0.100	0.09150		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.09043		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1882		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09431		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-45149/2-A
Matrix: Solid
Analysis Batch: 45131

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 45149

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1062		mg/Kg		106	70 - 130	2	35

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

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

Lab Sample ID: LCSD 880-45149/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45131 — **Prep Batch: 45149**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09716		mg/Kg		97	70 - 130	6	35
Ethylbenzene			0.100	0.09608		mg/Kg		96	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2004		mg/Kg		100	70 - 130	6	35
o-Xylene			0.100	0.1003		mg/Kg		100	70 - 130	6	35

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

Lab Sample ID: 890-3920-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45131 — **Prep Batch: 45149**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.101	0.08904		mg/Kg		88	70 - 130
Toluene	<0.00202	U	0.101	0.08562		mg/Kg		85	70 - 130
Ethylbenzene	<0.00202	U	0.101	0.08420		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.202	0.1762		mg/Kg		87	70 - 130
o-Xylene	<0.00202	U	0.101	0.08713		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-3920-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45131 — **Prep Batch: 45149**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0996	0.1028		mg/Kg		103	70 - 130	14	35
Toluene	<0.00202	U	0.0996	0.08344		mg/Kg		84	70 - 130	3	35
Ethylbenzene	<0.00202	U	0.0996	0.07815		mg/Kg		78	70 - 130	7	35
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1543		mg/Kg		77	70 - 130	13	35
o-Xylene	<0.00202	U	0.0996	0.07563		mg/Kg		76	70 - 130	14	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

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

Lab Sample ID: MB 880-45214/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45303 — **Prep Batch: 45214**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 09:09	1

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

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

Lab Sample ID: MB 880-45214/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45303 — **Prep Batch: 45214**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 09:09	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/01/23 15:22	02/03/23 09:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/01/23 15:22*	*02/03/23 09:09*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/01/23 15:22*	*02/03/23 09:09*	*1*

Lab Sample ID: LCS 880-45214/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45303 — **Prep Batch: 45214**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	861.4		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)			999	983.6		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: LCSD 880-45214/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45303 — **Prep Batch: 45214**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	830.8		mg/Kg		83	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			999	938.1		mg/Kg		94	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: 890-3911-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45303 — **Prep Batch: 45214**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	814.9		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	956.9		mg/Kg		94	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

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

Lab Sample ID: 890-3911-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 45303 — **Prep Batch: 45214**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	840.6		mg/Kg		81	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	972.0		mg/Kg		96	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44795/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45051

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/29/23 17:36	1

Lab Sample ID: LCS 880-44795/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45051

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	249.3		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-44795/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45051

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	249.8		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-3928-A-3-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45051

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	8.18		248	237.7		mg/Kg		93	90 - 110		

Lab Sample ID: 890-3928-A-3-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 45051

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8.18		248	238.4		mg/Kg		93	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

GC VOA

Analysis Batch: 45131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-1	SW01	Total/NA	Solid	8021B	45149
890-3927-2	SW02	Total/NA	Solid	8021B	45149
890-3927-3	SW03	Total/NA	Solid	8021B	45149
890-3927-4	SW04	Total/NA	Solid	8021B	45149
890-3927-5	SW05	Total/NA	Solid	8021B	45149
890-3927-6	SW06	Total/NA	Solid	8021B	45149
MB 880-45146/5-A	Method Blank	Total/NA	Solid	8021B	45146
MB 880-45149/5-A	Method Blank	Total/NA	Solid	8021B	45149
LCS 880-45149/1-A	Lab Control Sample	Total/NA	Solid	8021B	45149
LCSD 880-45149/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	45149
890-3920-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	45149
890-3920-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	45149

Prep Batch: 45146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-45146/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 45149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-1	SW01	Total/NA	Solid	5035	
890-3927-2	SW02	Total/NA	Solid	5035	
890-3927-3	SW03	Total/NA	Solid	5035	
890-3927-4	SW04	Total/NA	Solid	5035	
890-3927-5	SW05	Total/NA	Solid	5035	
890-3927-6	SW06	Total/NA	Solid	5035	
MB 880-45149/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-45149/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-45149/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3920-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-3920-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 45197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-1	SW01	Total/NA	Solid	Total BTEX	
890-3927-2	SW02	Total/NA	Solid	Total BTEX	
890-3927-3	SW03	Total/NA	Solid	Total BTEX	
890-3927-4	SW04	Total/NA	Solid	Total BTEX	
890-3927-5	SW05	Total/NA	Solid	Total BTEX	
890-3927-6	SW06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 45214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-1	SW01	Total/NA	Solid	8015NM Prep	
890-3927-2	SW02	Total/NA	Solid	8015NM Prep	
890-3927-3	SW03	Total/NA	Solid	8015NM Prep	
890-3927-4	SW04	Total/NA	Solid	8015NM Prep	
890-3927-5	SW05	Total/NA	Solid	8015NM Prep	
890-3927-6	SW06	Total/NA	Solid	8015NM Prep	
MB 880-45214/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

GC Semi VOA (Continued)

Prep Batch: 45214 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-45214/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-45214/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3911-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3911-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 45303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-1	SW01	Total/NA	Solid	8015B NM	45214
890-3927-2	SW02	Total/NA	Solid	8015B NM	45214
890-3927-3	SW03	Total/NA	Solid	8015B NM	45214
890-3927-4	SW04	Total/NA	Solid	8015B NM	45214
890-3927-5	SW05	Total/NA	Solid	8015B NM	45214
890-3927-6	SW06	Total/NA	Solid	8015B NM	45214
MB 880-45214/1-A	Method Blank	Total/NA	Solid	8015B NM	45214
LCS 880-45214/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	45214
LCSD 880-45214/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	45214
890-3911-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	45214
890-3911-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	45214

Analysis Batch: 45447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-1	SW01	Total/NA	Solid	8015 NM	
890-3927-2	SW02	Total/NA	Solid	8015 NM	
890-3927-3	SW03	Total/NA	Solid	8015 NM	
890-3927-4	SW04	Total/NA	Solid	8015 NM	
890-3927-5	SW05	Total/NA	Solid	8015 NM	
890-3927-6	SW06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-1	SW01	Soluble	Solid	DI Leach	
890-3927-2	SW02	Soluble	Solid	DI Leach	
890-3927-3	SW03	Soluble	Solid	DI Leach	
890-3927-4	SW04	Soluble	Solid	DI Leach	
890-3927-5	SW05	Soluble	Solid	DI Leach	
890-3927-6	SW06	Soluble	Solid	DI Leach	
MB 880-44795/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44795/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44795/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3928-A-3-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-3928-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 45051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-1	SW01	Soluble	Solid	300.0	44795
890-3927-2	SW02	Soluble	Solid	300.0	44795
890-3927-3	SW03	Soluble	Solid	300.0	44795
890-3927-4	SW04	Soluble	Solid	300.0	44795
890-3927-5	SW05	Soluble	Solid	300.0	44795

QC Association Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

HPLC/IC (Continued)

Analysis Batch: 45051 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3927-6	SW06	Soluble	Solid	300.0	44795
MB 880-44795/1-A	Method Blank	Soluble	Solid	300.0	44795
LCS 880-44795/2-A	Lab Control Sample	Soluble	Solid	300.0	44795
LCSD 880-44795/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44795
890-3928-A-3-B MS	Matrix Spike	Soluble	Solid	300.0	44795
890-3928-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	44795

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Client Sample ID: SW01

Date Collected: 01/19/23 13:55
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3927-1

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	45149	01/31/23 14:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 05:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45197	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45447	02/04/23 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45214	02/01/23 15:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45303	02/03/23 17:35	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 18:19	CH	EET MID

Client Sample ID: SW02

Date Collected: 01/19/23 14:10
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3927-2

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	45149	01/31/23 14:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 05:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45197	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45447	02/04/23 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45214	02/01/23 15:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45303	02/03/23 17:56	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 18:25	CH	EET MID

Client Sample ID: SW03

Date Collected: 01/19/23 14:15
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3927-3

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	45149	01/31/23 14:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 06:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45197	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45447	02/04/23 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45214	02/01/23 15:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45303	02/03/23 18:17	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 18:31	CH	EET MID

Client Sample ID: SW04

Date Collected: 01/19/23 14:20
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3927-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	45149	01/31/23 14:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 06:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45197	02/01/23 12:31	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Client Sample ID: SW04

Date Collected: 01/19/23 14:20
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3927-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			45447	02/04/23 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45214	02/01/23 15:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45303	02/03/23 18:38	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 18:50	CH	EET MID

Client Sample ID: SW05

Date Collected: 01/19/23 14:40
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3927-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	45149	01/31/23 14:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 06:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45197	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45447	02/04/23 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	45214	02/01/23 15:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45303	02/03/23 18:58	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 18:56	CH	EET MID

Client Sample ID: SW06

Date Collected: 01/19/23 14:50
Date Received: 01/23/23 16:24

Lab Sample ID: 890-3927-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	45149	01/31/23 14:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	45131	02/01/23 07:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			45197	02/01/23 12:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			45447	02/04/23 09:40	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	45214	02/01/23 15:22	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	45303	02/03/23 19:19	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44795	01/26/23 08:36	CH	EET MID
Soluble	Analysis	300.0		1			45051	01/29/23 19:02	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: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Jalmat Yates Sant Unit 170

Job ID: 890-3927-1
SDG: 03D2057047

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3927-1	SW01	Solid	01/19/23 13:55	01/23/23 16:24	0-2'
890-3927-2	SW02	Solid	01/19/23 14:10	01/23/23 16:24	0-2'
890-3927-3	SW03	Solid	01/19/23 14:15	01/23/23 16:24	0-2.5'
890-3927-4	SW04	Solid	01/19/23 14:20	01/23/23 16:24	0-2'
890-3927-5	SW05	Solid	01/19/23 14:40	01/23/23 16:24	0.5-2.5'
890-3927-6	SW06	Solid	01/19/23 14:50	01/23/23 16:24	0.5'-2.5

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Hadlie Green	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:	432-557-8895	Email:	kjennings@ensolum.com, hgreen@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:	Jalmat Yates Sant Unit 170	Turn Around	
Project Number:	03D2057047	☑ Routine ☐ Rush	
Project Location:	Lea	Due Date:	
Sampler's Name:	Peter Van Patten	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TAM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SW01	Soil	1/19/2023	1355	0'-2'	Comp	1		x	x	x
SW02	Soil	1/19/2023	1410	0'-2'	Comp	1		x	x	x
SW03	Soil	1/19/2023	1415	0'-2.5'	Comp	1		x	x	x
SW04	Soil	1/19/2023	1420	0'-2'	Comp	1		x	x	x
SW05	Soil	1/19/2023	1440	.5'-2.5'	Comp	1		x	x	x
SW06	Soil	1/19/2023	1450	.5'-2.5'	Comp	1		x	x	x

Parameters

890-3927 Chain of Custody

Sample Comments

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 Peter Van Patten	Amanda Stott	1-23-23 1624			
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3927-1
SDG Number: 03D2057047

Login Number: 3927
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: 890-3927-1
SDG Number: 03D2057047

Login Number: 3927
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/25/23 12:13 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/15/2023 7:57:49 AM

JOB DESCRIPTION

Jalmat 170

JOB NUMBER

890-4060-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

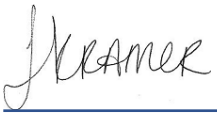
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



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2/15/2023 7:57:49 AM

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

Client: Ensolum
Project/Site: Jalmat 170

Laboratory Job ID: 890-4060-1

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-4060-1
Project/Site: Jalmat 170

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance 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, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

Job ID: 890-4060-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4060-1

Receipt
The samples were received on 2/8/2023 2:56 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS13A (890-4060-1) and SW07 (890-4060-2).

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-46016 and analytical batch 880-46059 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW07 (890-4060-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-46093 and analytical batch 880-46267 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4070-A-1-E MS) and (890-4070-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SW07 (890-4060-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

Client Sample Results

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

Client Sample ID: FS14A

Lab Sample ID: 890-4060-1
Matrix: Solid
Date Collected: 02/07/23 12:13
Date Received: 02/08/23 14:56
Sample Depth: 1.25'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/10/23 14:55	02/12/23 00:20	1
Toluene	<0.00198	U *-	0.00198		mg/Kg		02/10/23 14:55	02/12/23 00:20	1
Ethylbenzene	<0.00198	U *-	0.00198		mg/Kg		02/10/23 14:55	02/12/23 00:20	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/10/23 14:55	02/12/23 00:20	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/10/23 14:55	02/12/23 00:20	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/10/23 14:55	02/12/23 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*02/10/23 14:55*	*02/12/23 00:20*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/10/23 14:55*	*02/12/23 00:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/13/23 19:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/15/23 08:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/13/23 09:09	02/14/23 19:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/13/23 09:09	02/14/23 19:06	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/13/23 09:09	02/14/23 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/13/23 09:09*	*02/14/23 19:06*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/13/23 09:09*	*02/14/23 19:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**84.1**		4.95		mg/Kg			02/14/23 10:41	1

Client Sample ID: SW07

Lab Sample ID: 890-4060-2
Matrix: Solid
Date Collected: 02/07/23 12:10
Date Received: 02/08/23 14:56
Sample Depth: 0-2.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:55	02/12/23 00:41	1
Toluene	<0.00200	U *-	0.00200		mg/Kg		02/10/23 14:55	02/12/23 00:41	1
Ethylbenzene	<0.00200	U *-	0.00200		mg/Kg		02/10/23 14:55	02/12/23 00:41	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/10/23 14:55	02/12/23 00:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:55	02/12/23 00:41	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/10/23 14:55	02/12/23 00:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/10/23 14:55*	*02/12/23 00:41*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

Client Sample ID: SW07

Date Collected: 02/07/23 12:10
Date Received: 02/08/23 14:56
Sample Depth: 0-2.5'

Lab Sample ID: 890-4060-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/10/23 14:55*	*02/12/23 00:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/13/23 19:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/15/23 08:41	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		02/13/23 09:09	02/14/23 19:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/23 09:09	02/14/23 19:29	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/23 09:09	02/14/23 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*65*	*S1-*	*70 - 130*	*02/13/23 09:09*	*02/14/23 19:29*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*02/13/23 09:09*	*02/14/23 19:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**79.8**		4.99		mg/Kg			02/14/23 10:55	1

Surrogate Summary

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
820-7364-A-1-B MS	Matrix Spike	121	104										
820-7364-A-1-C MSD	Matrix Spike Duplicate	115	106										
890-4047-A-1-C MS	Matrix Spike	113	112										
890-4047-A-1-D MSD	Matrix Spike Duplicate	109	112										
890-4060-1	FS13A	121	108										
890-4060-2	SW07	123	108										
LCS 880-46016/1-A	Lab Control Sample	108	110										
LCS 880-46019/1-A	Lab Control Sample	114	102										
LCSD 880-46016/2-A	Lab Control Sample Dup	114	110										
LCSD 880-46019/2-A	Lab Control Sample Dup	109	104										
MB 880-46016/5-A	Method Blank	111	105										
MB 880-46019/5-A	Method Blank	74	95										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-4060-1	FS13A	70	70										
890-4060-2	SW07	65 S1-	69 S1-										
890-4070-A-1-E MS	Matrix Spike	18 S1-	11 S1-										
890-4070-A-1-E MSD	Matrix Spike Duplicate	18 S1-	11 S1-										
LCS 880-46093/2-A	Lab Control Sample	113	120										
LCSD 880-46093/3-A	Lab Control Sample Dup	119	125										
MB 880-46093/1-A	Method Blank	67 S1-	74										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46016/5-A
Matrix: Solid
Analysis Batch: 46059

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46016

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:55	02/11/23 16:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/10/23 14:55	02/11/23 16:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/10/23 14:55	02/11/23 16:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/10/23 14:55	02/11/23 16:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/10/23 14:55*	*02/11/23 16:15*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/10/23 14:55*	*02/11/23 16:15*	*1*

Lab Sample ID: LCS 880-46016/1-A
Matrix: Solid
Analysis Batch: 46059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46016

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07008		mg/Kg		70	70 - 130		
Toluene			0.100	0.06866	*-	mg/Kg		69	70 - 130		
Ethylbenzene			0.100	0.06746	*-	mg/Kg		67	70 - 130		
m-Xylene & p-Xylene			0.200	0.1444		mg/Kg		72	70 - 130		
o-Xylene			0.100	0.07197		mg/Kg		72	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: LCSD 880-46016/2-A
Matrix: Solid
Analysis Batch: 46059

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46016

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.07747		mg/Kg		77	70 - 130	10	35
Toluene			0.100	0.07237		mg/Kg		72	70 - 130	5	35
Ethylbenzene			0.100	0.07187		mg/Kg		72	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1528		mg/Kg		76	70 - 130	6	35
o-Xylene			0.100	0.07577		mg/Kg		76	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Lab Sample ID: 890-4047-A-1-C MS
Matrix: Solid
Analysis Batch: 46059

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 46016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0990	0.1079		mg/Kg		109	70 - 130		
Toluene	<0.00201	U *-	0.0990	0.1062		mg/Kg		107	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

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

Lab Sample ID: 890-4047-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46059 — **Prep Batch: 46016**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U *-	0.0990	0.1065		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.198	0.2259		mg/Kg		114	70 - 130
o-Xylene	<0.00201	U	0.0990	0.1081		mg/Kg		109	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 890-4047-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46059 — **Prep Batch: 46016**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.1140		mg/Kg		114	70 - 130	6	35
Toluene	<0.00201	U *-	0.0998	0.1074		mg/Kg		108	70 - 130	1	35
Ethylbenzene	<0.00201	U *-	0.0998	0.1067		mg/Kg		107	70 - 130	0	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2247		mg/Kg		113	70 - 130	1	35
o-Xylene	<0.00201	U	0.0998	0.1069		mg/Kg		107	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: MB 880-46019/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46073 — **Prep Batch: 46019**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/10/23 15:02	02/12/23 14:31	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/10/23 15:02	02/12/23 14:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*02/10/23 15:02*	*02/12/23 14:31*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/10/23 15:02*	*02/12/23 14:31*	*1*

Lab Sample ID: LCS 880-46019/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46073 — **Prep Batch: 46019**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1043		mg/Kg		104	70 - 130
Toluene	0.100	0.1031		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2306		mg/Kg		115	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

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

Lab Sample ID: LCS 880-46019/1-A
Matrix: Solid
Analysis Batch: 46073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46019

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1142		mg/Kg		114	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-46019/2-A
Matrix: Solid
Analysis Batch: 46073

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46019

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1134		mg/Kg		113	70 - 130	8	35
Toluene			0.100	0.1048		mg/Kg		105	70 - 130	2	35
Ethylbenzene			0.100	0.1094		mg/Kg		109	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2311		mg/Kg		116	70 - 130	0	35
o-Xylene			0.100	0.1138		mg/Kg		114	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 820-7364-A-1-B MS
Matrix: Solid
Analysis Batch: 46073

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 46019

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.09111		mg/Kg		91	70 - 130		
Toluene	<0.00201	U	0.0996	0.09028		mg/Kg		91	70 - 130		
Ethylbenzene	<0.00201	U	0.0996	0.09883		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2130		mg/Kg		106	70 - 130		
o-Xylene	0.00207		0.0996	0.1063		mg/Kg		105	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 820-7364-A-1-C MSD
Matrix: Solid
Analysis Batch: 46073

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 46019

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.1013		mg/Kg		102	70 - 130	11	35
Toluene	<0.00201	U	0.0996	0.1036		mg/Kg		104	70 - 130	14	35
Ethylbenzene	<0.00201	U	0.0996	0.1085		mg/Kg		108	70 - 130	9	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2331		mg/Kg		116	70 - 130	9	35
o-Xylene	0.00207		0.0996	0.1158		mg/Kg		114	70 - 130	9	35

QC Sample Results

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

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

Lab Sample ID: 820-7364-A-1-C MSD
Matrix: Solid
Analysis Batch: 46073

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 46019

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-46093/1-A
Matrix: Solid
Analysis Batch: 46267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46093

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/13/23 09:09	02/14/23 09:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/23 09:09	02/14/23 09:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/23 09:09	02/14/23 09:07	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130	02/13/23 09:09	02/14/23 09:07	1
o-Terphenyl	74		70 - 130	02/13/23 09:09	02/14/23 09:07	1

Lab Sample ID: LCS 880-46093/2-A
Matrix: Solid
Analysis Batch: 46267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46093

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1119		mg/Kg		112	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1133		mg/Kg		113	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	120		70 - 130

Lab Sample ID: LCSD 880-46093/3-A
Matrix: Solid
Analysis Batch: 46267

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46093

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1161		mg/Kg		116	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1124		mg/Kg		112	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	125		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

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

Lab Sample ID: 890-4070-A-1-E MS
Matrix: Solid
Analysis Batch: 46267

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 46093

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	18	S1-	70 - 130
o-Terphenyl	11	S1-	70 - 130

Lab Sample ID: 890-4070-A-1-E MSD
Matrix: Solid
Analysis Batch: 46267

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 46093

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	18	S1-	70 - 130
o-Terphenyl	11	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46036/1-A
Matrix: Solid
Analysis Batch: 46293

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			02/14/23 10:27	1

Lab Sample ID: LCS 880-46036/2-A
Matrix: Solid
Analysis Batch: 46293

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	240.9		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-46036/3-A
Matrix: Solid
Analysis Batch: 46293

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	238.9		mg/Kg		96	90 - 110	1	20

Lab Sample ID: 890-4060-1 MS
Matrix: Solid
Analysis Batch: 46293

Client Sample ID: FS13A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	84.1		248	317.4		mg/Kg		94	90 - 110		

Lab Sample ID: 890-4060-1 MSD
Matrix: Solid
Analysis Batch: 46293

Client Sample ID: FS13A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	84.1		248	315.1		mg/Kg		93	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

GC VOA

Prep Batch: 46016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4060-1	FS13A	Total/NA	Solid	5035	
890-4060-2	SW07	Total/NA	Solid	5035	
MB 880-46016/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46016/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46016/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4047-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-4047-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 46019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46019/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46019/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46019/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-7364-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
820-7364-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 46059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4060-1	FS13A	Total/NA	Solid	8021B	46016
890-4060-2	SW07	Total/NA	Solid	8021B	46016
MB 880-46016/5-A	Method Blank	Total/NA	Solid	8021B	46016
LCS 880-46016/1-A	Lab Control Sample	Total/NA	Solid	8021B	46016
LCSD 880-46016/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46016
890-4047-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	46016
890-4047-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46016

Analysis Batch: 46073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46019/5-A	Method Blank	Total/NA	Solid	8021B	46019
LCS 880-46019/1-A	Lab Control Sample	Total/NA	Solid	8021B	46019
LCSD 880-46019/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46019
820-7364-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	46019
820-7364-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	46019

Analysis Batch: 46246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4060-1	FS13A	Total/NA	Solid	Total BTEX	
890-4060-2	SW07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4060-1	FS13A	Total/NA	Solid	8015NM Prep	
890-4060-2	SW07	Total/NA	Solid	8015NM Prep	
MB 880-46093/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46093/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46093/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4070-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4070-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

GC Semi VOA

Analysis Batch: 46267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4060-1	FS13A	Total/NA	Solid	8015B NM	46093
890-4060-2	SW07	Total/NA	Solid	8015B NM	46093
MB 880-46093/1-A	Method Blank	Total/NA	Solid	8015B NM	46093
LCS 880-46093/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46093
LCSD 880-46093/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46093
890-4070-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	46093
890-4070-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46093

Analysis Batch: 46360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4060-1	FS13A	Total/NA	Solid	8015 NM	
890-4060-2	SW07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4060-1	FS13A	Soluble	Solid	DI Leach	
890-4060-2	SW07	Soluble	Solid	DI Leach	
MB 880-46036/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46036/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46036/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4060-1 MS	FS13A	Soluble	Solid	DI Leach	
890-4060-1 MSD	FS13A	Soluble	Solid	DI Leach	

Analysis Batch: 46293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4060-1	FS13A	Soluble	Solid	300.0	46036
890-4060-2	SW07	Soluble	Solid	300.0	46036
MB 880-46036/1-A	Method Blank	Soluble	Solid	300.0	46036
LCS 880-46036/2-A	Lab Control Sample	Soluble	Solid	300.0	46036
LCSD 880-46036/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46036
890-4060-1 MS	FS13A	Soluble	Solid	300.0	46036
890-4060-1 MSD	FS13A	Soluble	Solid	300.0	46036

Lab Chronicle

Client: Ensolum
Job ID: 890-4060-1
Project/Site: Jalmat 170

Client Sample ID: FS14A
Lab Sample ID: 890-4060-1
Date Collected: 02/07/23 12:13
Matrix: Solid
Date Received: 02/08/23 14:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/12/23 00:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46246	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46360	02/15/23 08:41	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46093	02/13/23 09:09	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46267	02/14/23 19:06	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	46036	02/10/23 16:44	KS	EET MID
Soluble	Analysis	300.0		1			46293	02/14/23 10:41	CH	EET MID

Client Sample ID: SW07
Lab Sample ID: 890-4060-2
Date Collected: 02/07/23 12:10
Matrix: Solid
Date Received: 02/08/23 14:56

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	46016	02/10/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46059	02/12/23 00:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			46246	02/13/23 19:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			46360	02/15/23 08:41	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46093	02/13/23 09:09	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46267	02/14/23 19:29	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46036	02/10/23 16:44	KS	EET MID
Soluble	Analysis	300.0		1			46293	02/14/23 10:55	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: Jalmat 170

Job ID: 890-4060-1

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Job ID: 890-4060-1
Project/Site: Jalmat 170

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4060-1	FS13A	Solid	02/07/23 12:13	02/08/23 14:56	1'
890-4060-2	SW07	Solid	02/07/23 12:10	02/08/23 14:56	0-2.5'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Hadlie Green	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:	432-557-8895	Email:	kjennings@ensolum.com, hgreen@ensolum.com

Work Order Comments

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

Project Name:	JAL MAT 17D	Turn Around	☒ Routine ☐ Rush
Project Number:		Due Date:	5 DAY
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Hadlie Green		
PO #:			

SAMPLE RECEIPT	Temp Blank: Yes No	Wet Ice: Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TM 007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	4.3
Total Containers:		Corrected Temperature:	4.1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code
FS13A	SL	2/7/23	1213	1	C	1	
SW07	SL	2/7/23	1210	0-2.5	C	1	

Parameters: TPH 6015 | BTEX 8021 | CHLORIDE 300

890-4060 Chain of Custody

Preservative Codes

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

Sample Comments

2 - 4oz

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 Hadlie Green	Amanda Sluy	2.8.23 1458			
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-4060-1

Login Number: 4060 **List Source: Eurofins Carlsbad**
List Number: 1
Creator: Stutzman, Amanda

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

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-4060-1

Login Number: 4060 **List Source: Eurofins Midland**
List Number: 2 **List Creation: 02/10/23 11:50 AM**
Creator: Rodriguez, Leticia

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

ENSOLUM

APPENDIX D

Final C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2233946698
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Maverick Permian, LLC	OGRID: 331199
Contact Name: Bryce Wagoner	Contact Telephone: 928-241-1862
Contact email: Bryce.Wagoner@mavresources.com	Incident # *(assigned by OCD)* NAPP2233946698
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.39512 Longitude -103.33486

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Jalmat Yates Sand Unit 170	Site Type
Date Release Discovered November 20, 2022	API# *(if applicable)* 30-025-35262

Unit Letter	Section	Township	Range	County
H	14	22S	35E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 1.92 bbls	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 7.7 bbls	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The release was caused by a flowline rupture due to possible inner corrosion. The release occurred off pad. The source of the release has been stopped and the impacted area has been secured. Initial response and removal of saturated soil from the release area has been completed.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2233946698
District RP	
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Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ____Bryce Wagoner _____ Title: ___Permian HSE Specialist II_____

Signature: _____ Date: __11/30/2022_____

email: _____Bryce.Wagoner@mavresources.com____ Telephone: ___928-241-1862_____

OCD Only

Received by: _____ Date: _____

NAPP2233946698

Pooled Fluids on the Surface										
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries *edges of pool where depth is 0 . don't count shared boundaries*	Oil-Water Ratio (%)	Pooled Area (ft^2)	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle B					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
							Total Volume (bbls):	**0.00**	**0.00**	**0.00**

Subsurface Fluids										
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) **10% in consolidated sediments after rain to 50% in sand with no precipitation*	Oil-Water Ratio (%)	Area (ft^2)	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	90.0	90.0	1.0	0.1	0.20	8100.0	120.2	9.6	1.92	7.7
Rectangle B				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle C				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle D				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle E				0.1	0.01	0.0	0.0	0.0	0.00	0.0
Rectangle F						0.0	0.0	0.0	0.00	0.0
Rectangle G						0.0	0.0	0.0	0.00	0.0
Rectangle H						0.0	0.0	0.0	0.00	0.0
Rectangle I						0.0	0.0	0.0	0.00	0.0
Rectangle J						0.0	0.0	0.0	0.00	0.0
							Total Volume (bbls):	**9.61**	**1.92**	**7.69**

TOTAL RELEASE VOLUME (bbls):	**9.6**

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2233946698
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2233946698
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ___Bryce Wagoner_____ Title: __Permian HSE Specialist II_____

Signature:_____ Date: __02/16/2023_____

email: _Bryce.Wagoner@mavresources.com _____ Telephone: ___928-241-1862_____

OCD Only

Received by: _____Jocelyn Harimon_____ Date: ___02/17/2023___

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Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2233946698
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: ___Bryce Wagoner_____ Title: _Permian HSE Specialist II____

Signature: _____ Date:_____02/16/2023_____

email: __Bryce.Wagoner@mavresources.com_____ Telephone:___928-241-1862_____

OCD Only

Received by: Jocelyn Harimon Date: 02/21/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 03/01/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

APPENDIX E

NMOCD Notifications

Joe Gable

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Thursday, December 8, 2022 9:22 AM
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 12/12/2022)

[**EXTERNAL EMAIL**]

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, December 7, 2022 4:46 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 12/12/2022)

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

All,

Maverick Natural Resources (Maverick) plans to complete final sampling activities at the following sites the week of December 12, 2022.

- Jalmat 170/ NAPP2233946698
- SEMU Eumont 117 / NAPP2231946665
- EVGSAU 2418-001 / NAPP2231954757

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

Joe Gable

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Friday, December 30, 2022 11:41 AM
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/02/2023)

[**EXTERNAL EMAIL**]

Good morning Kalei,

Please be aware that notification requirements are **two business days**, per rule. Please proceed on your schedule. Also, please include this, and all correspondence, in the closure report to insure inclusion in the project file.

Thank you,
Jocelyn

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Friday, December 30, 2022 10:25 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Hadlie Green <hgreen@ensolum.com>; Josh Adams <jadams@ensolum.com>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 01/02/2023)

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

All,

Maverick Natural Resources (Maverick) plans to complete final sampling activities at the following sites the week of January 2, 2023.

- Ruby Federal/ NAPP2231448981
- SEMU Eumont 117/ NAPP2231946665
- Oxy State F-1 / NAPP2235375291
- Jalmat 170 / NAPP2233946698
- Baish B Battery / NAPP2235372941

Joe Gable

From: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Sent: Thursday, January 12, 2023 9:34 AM
To: Kalei Jennings
Cc: Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD
Subject: RE: [EXTERNAL] Maverick- Sampling Notification (Week of 01/16/2023)

[**EXTERNAL EMAIL**]

Kalei,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Wednesday, January 11, 2023 5:25 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 01/16/2023)

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

All,

Maverick Natural Resources (Maverick) plans to complete final sampling activities at the following sites the week of January 16, 2023.

- Oxy State F-1 / NAPP2235375291
- Jalmat 188 / NAPP2235373931
- Jalmat 170 / NAPP2233946698
- MCA 151 / NAPP2235377174
- EVGSAU 2418-001 / NAPP2231954757
- Buckeye 43-01 / NAPP2230752440
- Leamex 018 / NAPP2234158858
-

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 187691

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 187691
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	3/1/2023