ENSOLUM

August 2, 2022

District 1
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

Re: Closure Request
MCA 417
Incident Number NAPP2204841206
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Natural Resources, LLC (Maverick), has prepared this Closure Request to document site assessment, excavation, and soil sampling activities performed at the MCA 417 flow line release (Site; Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of crude oil and produced water onto the surronding pasture and lease road in the vicinity of the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, Maverick is submitting this Closure Request, describing remediation that has occurred and requesting closure for Incident Number NAPP2204841206.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit N, Section 27, Township 17 South, Range 32 East, in Lea County, New Mexico (32.80000° N, 103.7564° W) and is associated with oil and gas exploration and production operations on Federal Land managed by Bureau of Land Management (BLM).

On February 4, 2022, extreme weather conditions lead to a flow line failure and resulted in the release of approximately 4.7 barrels (bbls) of produced water and 1.2 bbls of crude oil onto the lease road and surrounding pasture. Released fluids were not recovered. The previous operator (ConocoPhillips Company) reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on February 17, 2022. The release was assigned Incident Number NAPP2204841206.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) 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 the State Engineer (NMOSE) well RA-12721-POD5, located approximately 0.5 miles west of the Site. The groundwater well has a reported depth to groundwater of 124 feet bgs and a total depth of 130 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 2,329 feet southwest 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 1 Closure Criteria (Closure Criteria) apply:

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

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

SITE ASSESSMENT AND EXCAVATION ACTIVITIES

Between May 16 and May 18, 2022, Ensolum personnel were at the Site to oversee site assessment and excavation activities based on information provided on the Form C-141 and visible surface staining observed in the release area. Stained soil was excavated from the release area as indicated by visible staining and field screening activities. Excavation activities were performed via hand shoveling, backhoe, and transport vehicle. To direct excavation activities, soil was field screened for volatile aromatic hydrocarbons utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips.

Following the excavation activities, sixteen 5-point composite samples were collected from the floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS16 were collected from the floor of the excavation, ranging from 0.5 feet to 1.5 feet bgs. Due to the shallow depth of the excavation, soil from the sidewalls was incorporated into the floor samples. The excavation extent and excavation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. A photographic log of the excavation is included as Appendix B.

The excavation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States

Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for all confirmation soil samples were compliant with the Closure Criteria. Laboratory analyical results for excavation soil samples FS01, FS03, FS04, FS14, and FS16 indicated TPH and/or chloride concentrations exceed the reclamation requirement and additional remediation activites were warranted.

Ensolum personnel returned to the Site on July 14, 2022, to oversee additional excavation activities based on laboratory analytical results for the excavation soil samples. Additional soil was removed from the vicinity of the five confirmation soil sample locations and subsequent excavation soil samples FS01A, FS03A, FS04A, FS14A, and FS16A were collected. Additionally, four lateral delineation soil samples (SS01 through SS04) were collected around the release extent at a depth of 0.5 feet bgs to confirm the lateral extent of the release.

The excavation measured approximately 3,200 square feet in areal extent. A total of approximately 185 cubic yard 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 excavation floor sample FS01 through FS16, (including resampled areas) and lateral delineation soil samples SS01 through SS04 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride 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 February 4, 2022, release of produced water and crude oil. Laboratory analytical results for the excavation soil sample indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the reclamation requirements. Additionally, the release was laterally delineated to the most stringent Table 1 Closure Criteria. Based on the soil sample analytical results, no further remediation was required. Maverick will backfill the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture and the disturbed lease road area has been reconstructed.

Excavation of impacted soil has been mitigated 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 NAPP2204841206. The Final C-141 is included in Appendix D. Required NMOCD communications are included as Appendix E.

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

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Scientist

Daniel, R. Moir, P.G.
Senior Managing Geologist

cc: Thomas Haigood, Maverick Natural Resources
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports
Appendix D	Final C-141
Appendix E	NMOCD Notifications

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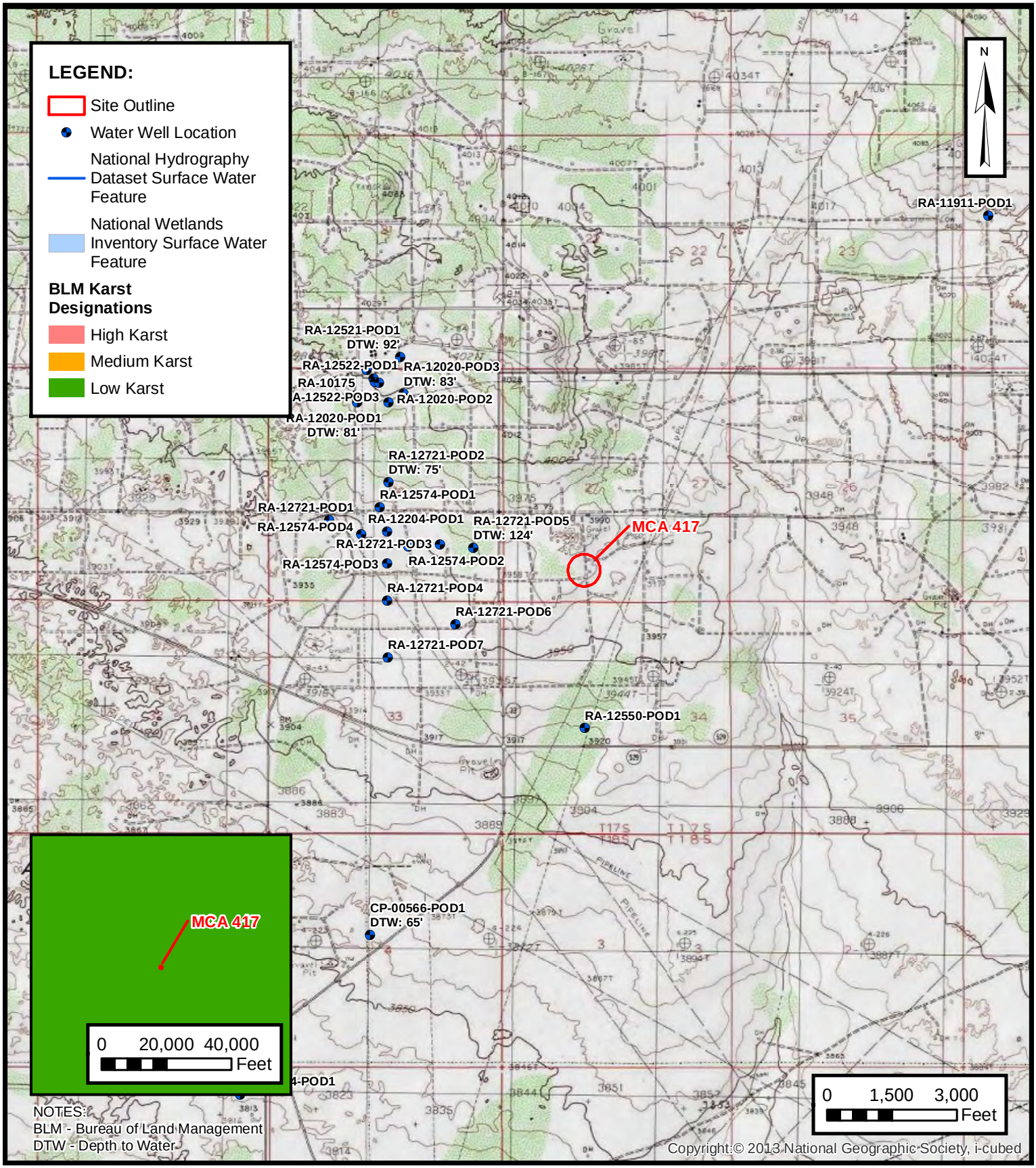
FIGURES



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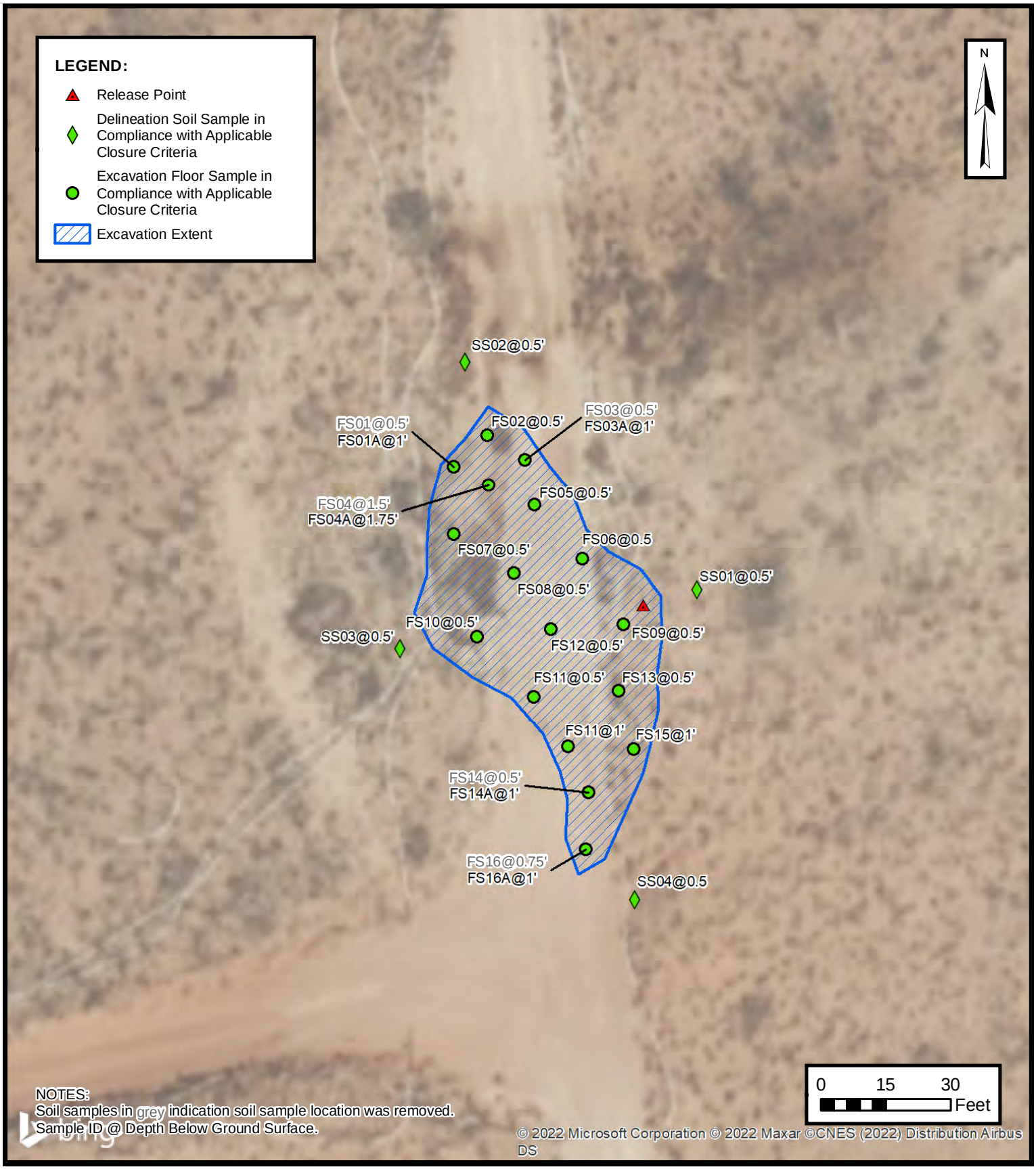
SITE RECEPTOR MAP

MAVERICK NATURAL RESOURCES, LLC
MCA 417
NAPP2204841206
Unit N, Sec 27, T17S, R32E
Lea County, New Mexico

FIGURE
1



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SOIL SAMPLE LOCATIONS

MAVERICK NATURAL RESOURCES, LLC
MCA 417
NAPP2204841206
Unit N, Sec 27, T17S, R32E
Lea County, New Mexico

FIGURE
2

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TABLE

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
MCA 417
Maverick Natural Resources, LLC
Lea County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Floor Soil Samples										
FS01	05/16/2022	0.5	<0.00201	<0.00402	<49.9	411	<49.9	**411**	**411**	**308***
FS01A	07/14/2022	1	<0.00199	0.00301	18.3	<49.9	15.7	18.3	34.0	33.9*
FS02	05/17/2022	1	<0.00200	<0.00400	<50.0	51.5	<50.0	51.5	51.5	279*
FS03	05/16/2022	0.5	<0.00202	0.0141	<49.9	158	<49.9	158	**158***	180*
FS03A	07/14/2022	1	<0.00202	<0.00403	19.3	<49.9	15.7	19.3	35.0	30.5*
FS04	05/18/2022	1.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	**1,010***
FS04A	07/14/2022	1.75	<0.00200	<0.00401	19.4	<49.9	15.9	19.4	35.3	30.3*
FS05	05/18/2022	1.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	372*
FS06	05/18/2022	1.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	108*
FS07	05/18/2022	1.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	498*
FS08	05/17/2022	1	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	529*
FS09	05/16/2022	0.5	<0.00199	<0.00398	<49.8	58.0	<49.8	58.0	58.0	34.6*
FS10	05/18/2022	1.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	286*
FS11	05/17/2022	0.5	<0.000398	<0.000795	<50.0	<50.0	<50.0	<50.0	<50.0	36.5*
FS12	05/17/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	27.6*
FS13	05/17/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	89.3*
FS14	05/17/2022	0.5	<0.00200	<0.00401	<49.9	151	<49.9	151	**151***	76.7*
FS14A	07/14/2022	1	<0.00200	<0.00399	20.2	<49.9	16.3	20.2	36.5	34.9
FS15	05/17/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	18.9*
FS16	05/18/2022	0.75	<0.00199	<0.00398	<49.8	51.8	55.7	51.8	**108***	146*
FS16A	07/14/2022	1	<0.00199	<0.00398	19.2	<50.0	16.3	19.2	35.5	68.9
Delineation Soil Samples										
SS01	07/14/2022	0.5	0.000724	<0.00102	21.6	<50.0	18.3	21.6	39.9	11.4*
SS02	07/14/2022	0.5	<0.0000768	0.000243	21.4	<49.9	16.8	21.4	38.2	11.3*
SS03	07/14/2022	0.5	<0.0000770	<0.000202	20.5	<50.0	17.1	20.5	37.6	14.0*
SS04	07/19/2022	0.5	<0.0000776	<0.000204	17.6	<50.0	15.9	17.6	33.5	36.8*

Notes:

bgs: below ground surface

BTEX: Benzene, Toluene, Ethylbenzene, and Total Xylenes

I.D: Identification

mg/kg: milligrams per kilogram

GRO - gasoline range organics

NMOCD: New Mexico Oil Conservation Division

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

* indicates sample was collected in area to be reclaimed after remediation is complete; the reclamation criteria applies to these samples

Concentrations in **bold** represent samples that exceed the applicable standard

Gray text represent sample locations that have been excavated

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APPENDIX A

Referenced Well Records

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: RA 12721 **Subbasin:** RA **Cross Reference:** -

Primary Purpose: MON MONITORING WELL

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

User: CONOCOPHILLIPS COMPANY

Contact: JULIE EVANS, TETRA TECH AGENT

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	677686	EXPL	2020-08-26	PMT	LOG	RA 12721 POD8	T	0	0	
get images	670406	EXPL	2020-03-27	PMT	APR	RA 12721 POD5-7	T	0	0	
get images	645505	EXPL	2019-04-16	PMT	APR	RA 12721 POD1-4	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
RA 12721 POD1	NA		3	2	3	28	17S	32E	614645	3630141	MW-6
RA 12721 POD2	NA	Shallow	1	1	4	28	17S	32E	615055	3630407	MW-7
RA 12721 POD3	NA	Shallow	2	3	4	28	17S	32E	615417	3629979	MW-8
RA 12721 POD4	NA		1	1	2	33	17S	32E	615055	3629589	MW-9
RA 12721 POD5	NA	Shallow	2	4	4	28	17S	32E	615650	3629961	MW-10
RA 12721 POD6	NA		1	2	2	33	17S	32E	615530	3629431	MW-11
RA 12721 POD7	NA		1	3	2	33	17S	32E	615064	3629198	MW-12
RA 12721 POD8	NA	Shallow	1	2	1	33	17S	32E	614640	3629463	MW-13

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	RA 12721 POD5	2	4	4	28	17S	32E	615650	3629961

Driller License: 1456 **Driller Company:** WHITE DRILLING COMPANY

Driller Name: WHITE, JOHNNOWN.GENER

Drill Start Date:	04/27/2020	**Drill Finish Date:**	04/28/2020	**Plug Date:**	
Log File Date:	05/18/2020	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	2.00	**Depth Well:**	130 feet	**Depth Water:**	124 feet

Water Bearing Stratifications:	Top	Bottom	Description
	109	121	Sandstone/Gravel/Conglomerate
	121	125	Sandstone/Gravel/Conglomerate
	125	130	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	90	130

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APPENDIX B

Photographic Log

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Photographic Log
Maverick Natural Resources, LLC
MCA 417
Incident Number: NAPP2204841206

Photograph 1
Date: July 14, 2022
Description: View of remediation excavation

Photograph 2
Date: July 14, 2022
Description: View of the remediation excavation.

Photograph 3
Date: July 14, 2022
Description: View of remediation excavation

Photograph 4
Date: July 14, 2022
Description: View of remediation excavation

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APPENDIX C

Laboratory Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2318-1
Laboratory Sample Delivery Group: 03D2024023
Client Project/Site: MCA 417

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
5/25/2022 10:43:12 AM

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

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

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

Client: Ensolum
Project/Site: MCA 417

Laboratory Job ID: 890-2318-1
SDG: 03D2024023

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Qualifiers

GC VOA

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

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: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Job ID: 890-2318-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2318-1

Receipt
The samples were received on 5/18/2022 1:32 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.6°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-25948 and analytical batch 880-25945 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS04 (890-2318-11), FS05 (890-2318-12) and FS06 (890-2318-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS10 (890-2318-15). 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
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: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS01

Date Collected: 05/16/22 10:25
Date Received: 05/18/22 13:32
Sample Depth: 0.5

Lab Sample ID: 890-2318-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/20/22 09:18	05/20/22 17:33	1
Toluene	<0.00201	U F1	0.00201		mg/Kg		05/20/22 09:18	05/20/22 17:33	1
Ethylbenzene	<0.00201	U F1	0.00201		mg/Kg		05/20/22 09:18	05/20/22 17:33	1
m-Xylene & p-Xylene	<0.00402	U F1	0.00402		mg/Kg		05/20/22 09:18	05/20/22 17:33	1
o-Xylene	**0.00314**	**F1**	0.00201		mg/Kg		05/20/22 09:18	05/20/22 17:33	1
Xylenes, Total	<0.00402	U F1	0.00402		mg/Kg		05/20/22 09:18	05/20/22 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*05/20/22 09:18*	*05/20/22 17:33*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*05/20/22 09:18*	*05/20/22 17:33*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**411**		49.9		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 16:09	1
Diesel Range Organics (Over C10-C28)	**411**		49.9		mg/Kg		05/20/22 10:04	05/20/22 16:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*05/20/22 10:04*	*05/20/22 16:09*	*1*
o-Terphenyl	*109*		*70 - 130*	*05/20/22 10:04*	*05/20/22 16:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**308**		24.9		mg/Kg			05/23/22 21:16	5

Client Sample ID: FS03

Date Collected: 05/16/22 11:15
Date Received: 05/18/22 13:32
Sample Depth: 0.5

Lab Sample ID: 890-2318-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/20/22 09:18	05/20/22 17:59	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/20/22 09:18	05/20/22 17:59	1
Ethylbenzene	**0.00310**		0.00202		mg/Kg		05/20/22 09:18	05/20/22 17:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/20/22 09:18	05/20/22 17:59	1
o-Xylene	**0.0110**		0.00202		mg/Kg		05/20/22 09:18	05/20/22 17:59	1
Xylenes, Total	**0.0110**		0.00403		mg/Kg		05/20/22 09:18	05/20/22 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*05/20/22 09:18*	*05/20/22 17:59*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS03

Lab Sample ID: 890-2318-2
Matrix: Solid
Date Collected: 05/16/22 11:15
Date Received: 05/18/22 13:32
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/20/22 09:18*	*05/20/22 17:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0141**		0.00403		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**158**		49.9		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 16:31	1
Diesel Range Organics (Over C10-C28)	**158**		49.9		mg/Kg		05/20/22 10:04	05/20/22 16:31	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*05/20/22 10:04*	*05/20/22 16:31*	*1*
o-Terphenyl	*113*		*70 - 130*	*05/20/22 10:04*	*05/20/22 16:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		4.96		mg/Kg			05/23/22 21:25	1

Client Sample ID: FS09

Lab Sample ID: 890-2318-3
Matrix: Solid
Date Collected: 05/16/22 12:35
Date Received: 05/18/22 13:32
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/20/22 18:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/20/22 18:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/20/22 18:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/20/22 09:18	05/20/22 18:25	1
o-Xylene	**0.00249**		0.00199		mg/Kg		05/20/22 09:18	05/20/22 18:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/20/22 09:18	05/20/22 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*05/20/22 09:18*	*05/20/22 18:25*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/20/22 09:18*	*05/20/22 18:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**58.0**		49.8		mg/Kg			05/23/22 09:09	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS09

Lab Sample ID: 890-2318-3
Matrix: Solid
Date Collected: 05/16/22 12:35
Date Received: 05/18/22 13:32
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/20/22 10:04	05/20/22 16:54	1
Diesel Range Organics (Over C10-C28)	**58.0**		49.8		mg/Kg		05/20/22 10:04	05/20/22 16:54	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/20/22 10:04	05/20/22 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*05/20/22 10:04*	*05/20/22 16:54*	*1*
o-Terphenyl	*107*		*70 - 130*	*05/20/22 10:04*	*05/20/22 16:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.6**		5.01		mg/Kg			05/23/22 21:34	1

Client Sample ID: FS11

Lab Sample ID: 890-2318-4
Matrix: Solid
Date Collected: 05/17/22 08:15
Date Received: 05/18/22 13:32
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000398	U	0.000398		mg/Kg		05/20/22 09:18	05/20/22 18:51	1
Toluene	<0.000398	U	0.000398		mg/Kg		05/20/22 09:18	05/20/22 18:51	1
Ethylbenzene	<0.000398	U	0.000398		mg/Kg		05/20/22 09:18	05/20/22 18:51	1
m-Xylene & p-Xylene	<0.000795	U	0.000795		mg/Kg		05/20/22 09:18	05/20/22 18:51	1
o-Xylene	<0.000398	U	0.000398		mg/Kg		05/20/22 09:18	05/20/22 18:51	1
Xylenes, Total	<0.000795	U	0.000795		mg/Kg		05/20/22 09:18	05/20/22 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*05/20/22 09:18*	*05/20/22 18:51*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*05/20/22 09:18*	*05/20/22 18:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000795	U	0.000795		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 12:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 12:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*05/20/22 10:04*	*05/20/22 12:44*	*1*
o-Terphenyl	*98*		*70 - 130*	*05/20/22 10:04*	*05/20/22 12:44*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS11

Lab Sample ID: 890-2318-4
Matrix: Solid
Date Collected: 05/17/22 08:15
Date Received: 05/18/22 13:32
Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.5		4.98		mg/Kg			05/23/22 21:44	1

Client Sample ID: FS12

Lab Sample ID: 890-2318-5
Matrix: Solid
Date Collected: 05/17/22 08:20
Date Received: 05/18/22 13:32
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/20/22 19:17	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/20/22 19:17	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/20/22 19:17	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/20/22 09:18	05/20/22 19:17	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/20/22 19:17	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/20/22 09:18	05/20/22 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*05/20/22 09:18*	*05/20/22 19:17*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/20/22 09:18*	*05/20/22 19:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 18:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 18:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*05/20/22 10:04*	*05/20/22 18:08*	*1*
o-Terphenyl	*109*		*70 - 130*	*05/20/22 10:04*	*05/20/22 18:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27.6		4.95		mg/Kg			05/23/22 21:53	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS14

Lab Sample ID: 890-2318-6
Matrix: Solid
Date Collected: 05/17/22 08:35
Date Received: 05/18/22 13:32
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 19:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 19:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 19:43	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/20/22 09:18	05/20/22 19:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 19:43	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/20/22 09:18	05/20/22 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*05/20/22 09:18*	*05/20/22 19:43*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/20/22 09:18*	*05/20/22 19:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**151**		49.9		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 18:30	1
Diesel Range Organics (Over C10-C28)	**151**		49.9		mg/Kg		05/20/22 10:04	05/20/22 18:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*05/20/22 10:04*	*05/20/22 18:30*	*1*
o-Terphenyl	*127*		*70 - 130*	*05/20/22 10:04*	*05/20/22 18:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.7**		4.97		mg/Kg			05/23/22 22:02	1

Client Sample ID: FS15

Lab Sample ID: 890-2318-7
Matrix: Solid
Date Collected: 05/17/22 08:40
Date Received: 05/18/22 13:32
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/20/22 09:18	05/20/22 20:09	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/20/22 09:18	05/20/22 20:09	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/20/22 09:18	05/20/22 20:09	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/20/22 09:18	05/20/22 20:09	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/20/22 09:18	05/20/22 20:09	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/20/22 09:18	05/20/22 20:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*05/20/22 09:18*	*05/20/22 20:09*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS15

Lab Sample ID: 890-2318-7
Matrix: Solid
Date Collected: 05/17/22 08:40
Date Received: 05/18/22 13:32
Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/20/22 09:18*	*05/20/22 20:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		05/20/22 10:04	05/20/22 18:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/20/22 10:04	05/20/22 18:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/20/22 10:04	05/20/22 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*108*		*70 - 130*	*05/20/22 10:04*	*05/20/22 18:53*	*1*
o-Terphenyl	*113*		*70 - 130*	*05/20/22 10:04*	*05/20/22 18:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.9**		5.02	mg/Kg			05/24/22 13:52	1

Client Sample ID: FS02

Lab Sample ID: 890-2318-8
Matrix: Solid
Date Collected: 05/17/22 12:40
Date Received: 05/18/22 13:32
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/20/22 09:18	05/20/22 20:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/20/22 09:18	05/20/22 20:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/20/22 09:18	05/20/22 20:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/20/22 09:18	05/20/22 20:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/20/22 09:18	05/20/22 20:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/20/22 09:18	05/20/22 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*05/20/22 09:18*	*05/20/22 20:36*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/20/22 09:18*	*05/20/22 20:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**51.5**		50.0	mg/Kg			05/23/22 09:09	1

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Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS02

Lab Sample ID: 890-2318-8
Matrix: Solid
Date Collected: 05/17/22 12:40
Date Received: 05/18/22 13:32
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 19:15	1
Diesel Range Organics (Over C10-C28)	**51.5**		50.0		mg/Kg		05/20/22 10:04	05/20/22 19:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*05/20/22 10:04*	*05/20/22 19:15*	*1*
o-Terphenyl	*115*		*70 - 130*	*05/20/22 10:04*	*05/20/22 19:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**279**		4.98		mg/Kg			05/24/22 14:19	1

Client Sample ID: FS08

Lab Sample ID: 890-2318-9
Matrix: Solid
Date Collected: 05/17/22 13:35
Date Received: 05/18/22 13:32
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 21:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 21:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 21:02	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/20/22 09:18	05/20/22 21:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 21:02	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/20/22 09:18	05/20/22 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*05/20/22 09:18*	*05/20/22 21:02*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/20/22 09:18*	*05/20/22 21:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 19:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 19:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*05/20/22 10:04*	*05/20/22 19:37*	*1*
o-Terphenyl	*118*		*70 - 130*	*05/20/22 10:04*	*05/20/22 19:37*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS08

Lab Sample ID: 890-2318-9
Matrix: Solid
Date Collected: 05/17/22 13:35
Date Received: 05/18/22 13:32
Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	529		5.00		mg/Kg			05/24/22 14:28	1

Client Sample ID: FS13

Lab Sample ID: 890-2318-10
Matrix: Solid
Date Collected: 05/17/22 13:40
Date Received: 05/18/22 13:32
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/20/22 21:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/20/22 21:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/20/22 21:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/20/22 09:18	05/20/22 21:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/20/22 21:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/20/22 09:18	05/20/22 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*05/20/22 09:18*	*05/20/22 21:28*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/20/22 09:18*	*05/20/22 21:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 19:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 19:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/20/22 10:04*	*05/20/22 19:59*	*1*
o-Terphenyl	*118*		*70 - 130*	*05/20/22 10:04*	*05/20/22 19:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.3		4.95		mg/Kg			05/24/22 14:38	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS04

Lab Sample ID: 890-2318-11
Matrix: Solid
Date Collected: 05/18/22 08:40
Date Received: 05/18/22 13:32
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/20/22 23:14	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/20/22 23:14	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/20/22 23:14	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/20/22 09:18	05/20/22 23:14	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/20/22 23:14	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/20/22 09:18	05/20/22 23:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*05/20/22 09:18*	*05/20/22 23:14*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/20/22 09:18*	*05/20/22 23:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 20:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 20:21	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/20/22 10:04	05/20/22 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/20/22 10:04*	*05/20/22 20:21*	*1*
o-Terphenyl	*121*		*70 - 130*	*05/20/22 10:04*	*05/20/22 20:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1010**		5.01		mg/Kg			05/24/22 14:47	1

Client Sample ID: FS05

Lab Sample ID: 890-2318-12
Matrix: Solid
Date Collected: 05/18/22 08:45
Date Received: 05/18/22 13:32
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 23:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 23:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 23:40	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/20/22 09:18	05/20/22 23:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:18	05/20/22 23:40	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/20/22 09:18	05/20/22 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*05/20/22 09:18*	*05/20/22 23:40*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS05

Lab Sample ID: 890-2318-12
Matrix: Solid
Date Collected: 05/18/22 08:45
Date Received: 05/18/22 13:32
Sample Depth: 1.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/20/22 09:18*	*05/20/22 23:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		05/20/22 10:04	05/20/22 20:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/20/22 10:04	05/20/22 20:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/20/22 10:04	05/20/22 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*05/20/22 10:04*	*05/20/22 20:43*	*1*
o-Terphenyl	*122*		*70 - 130*	*05/20/22 10:04*	*05/20/22 20:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**372**		4.99	mg/Kg			05/24/22 15:15	1

Client Sample ID: FS06

Lab Sample ID: 890-2318-13
Matrix: Solid
Date Collected: 05/18/22 08:50
Date Received: 05/18/22 13:32
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/20/22 09:18	05/21/22 00:06	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/20/22 09:18	05/21/22 00:06	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/20/22 09:18	05/21/22 00:06	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/20/22 09:18	05/21/22 00:06	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/20/22 09:18	05/21/22 00:06	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/20/22 09:18	05/21/22 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*05/20/22 09:18*	*05/21/22 00:06*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/20/22 09:18*	*05/21/22 00:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/23/22 09:09	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS06

Lab Sample ID: 890-2318-13
Matrix: Solid
Date Collected: 05/18/22 08:50
Date Received: 05/18/22 13:32
Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 21:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 21:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/20/22 10:04*	*05/20/22 21:05*	*1*
o-Terphenyl	*110*		*70 - 130*	*05/20/22 10:04*	*05/20/22 21:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**108**		4.98		mg/Kg			05/24/22 15:24	1

Client Sample ID: FS07

Lab Sample ID: 890-2318-14
Matrix: Solid
Date Collected: 05/18/22 09:55
Date Received: 05/18/22 13:32
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/20/22 09:18	05/21/22 00:32	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/20/22 09:18	05/21/22 00:32	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/20/22 09:18	05/21/22 00:32	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/20/22 09:18	05/21/22 00:32	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/20/22 09:18	05/21/22 00:32	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/20/22 09:18	05/21/22 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*05/20/22 09:18*	*05/21/22 00:32*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/20/22 09:18*	*05/21/22 00:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 21:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 21:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*05/20/22 10:04*	*05/20/22 21:27*	*1*
o-Terphenyl	*117*		*70 - 130*	*05/20/22 10:04*	*05/20/22 21:27*	*1*

Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS07

Lab Sample ID: 890-2318-14
Matrix: Solid
Date Collected: 05/18/22 09:55
Date Received: 05/18/22 13:32
Sample Depth: 1.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	498		4.97		mg/Kg			05/24/22 15:33	1

Client Sample ID: FS10

Lab Sample ID: 890-2318-15
Matrix: Solid
Date Collected: 05/18/22 10:00
Date Received: 05/18/22 13:32
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/21/22 00:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/21/22 00:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/21/22 00:58	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/20/22 09:18	05/21/22 00:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:18	05/21/22 00:58	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/20/22 09:18	05/21/22 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*05/20/22 09:18*	*05/21/22 00:58*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/20/22 09:18*	*05/21/22 00:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/20/22 09:19	05/21/22 06:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/20/22 09:19	05/21/22 06:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/20/22 09:19	05/21/22 06:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*05/20/22 09:19*	*05/21/22 06:45*	*1*
o-Terphenyl	*111*		*70 - 130*	*05/20/22 09:19*	*05/21/22 06:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	286		4.95		mg/Kg			05/24/22 15:42	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS16

Date Collected: 05/18/22 10:05
Date Received: 05/18/22 13:32
Sample Depth: 0.75

Lab Sample ID: 890-2318-16

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/21/22 01:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/21/22 01:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/21/22 01:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/20/22 09:18	05/21/22 01:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/20/22 09:18	05/21/22 01:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/20/22 09:18	05/21/22 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*05/20/22 09:18*	*05/21/22 01:24*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/20/22 09:18*	*05/21/22 01:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**108**		49.8		mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/20/22 09:19	05/21/22 07:06	1
Diesel Range Organics (Over C10-C28)	**51.8**		49.8		mg/Kg		05/20/22 09:19	05/21/22 07:06	1
Oil Range Organics (Over C28-C36)	**55.7**		49.8		mg/Kg		05/20/22 09:19	05/21/22 07:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*05/20/22 09:19*	*05/21/22 07:06*	*1*
o-Terphenyl	*110*		*70 - 130*	*05/20/22 09:19*	*05/21/22 07:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**146**		5.00		mg/Kg			05/24/22 15:52	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

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)										
890-2318-1	FS01	120	86										
890-2318-1 MS	FS01	105	93										
890-2318-1 MSD	FS01	111	94										
890-2318-2	FS03	114	87										
890-2318-3	FS09	118	85										
890-2318-4	FS11	104	109										
890-2318-5	FS12	122	94										
890-2318-6	FS14	124	97										
890-2318-7	FS15	123	98										
890-2318-8	FS02	129	97										
890-2318-9	FS08	126	88										
890-2318-10	FS13	130	89										
890-2318-11	FS04	137 S1+	93										
890-2318-12	FS05	132 S1+	99										
890-2318-13	FS06	131 S1+	90										
890-2318-14	FS07	129	90										
890-2318-15	FS10	136 S1+	97										
890-2318-16	FS16	127	89										
LCS 880-25948/1-A	Lab Control Sample	120	89										
LCSD 880-25948/2-A	Lab Control Sample Dup	114	91										
MB 880-25948/5-A	Method Blank	86	88										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
880-14972-A-21-F MS	Matrix Spike	105	98										
880-14972-A-21-G MSD	Matrix Spike Duplicate	101	97										
890-2318-1	FS01	105	109										
890-2318-2	FS03	109	113										
890-2318-3	FS09	104	107										
890-2318-4	FS11	97	98										
890-2318-4 MS	FS11	102	93										
890-2318-4 MSD	FS11	105	96										
890-2318-5	FS12	104	109										
890-2318-6	FS14	123	127										
890-2318-7	FS15	108	113										
890-2318-8	FS02	110	115										
890-2318-9	FS08	113	118										
890-2318-10	FS13	111	118										
890-2318-11	FS04	111	121										
890-2318-12	FS05	114	122										
890-2318-13	FS06	111	110										
890-2318-14	FS07	108	117										

Surrogate Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
890-2318-15	FS10	108	111								
890-2318-16	FS16	110	110								
LCS 880-25960/2-A	Lab Control Sample	89	89								
LCS 880-25967/2-A	Lab Control Sample	112	108								
LCSD 880-25960/3-A	Lab Control Sample Dup	116	116								
LCSD 880-25967/3-A	Lab Control Sample Dup	101	97								
MB 880-25960/1-A	Method Blank	114	126								
MB 880-25967/1-A	Method Blank	100	112								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25948/5-A
Matrix: Solid
Analysis Batch: 25945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25948

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000400	U	0.000400		mg/Kg		05/20/22 09:18	05/20/22 17:07	1
Toluene	<0.000400	U	0.000400		mg/Kg		05/20/22 09:18	05/20/22 17:07	1
Ethylbenzene	<0.000400	U	0.000400		mg/Kg		05/20/22 09:18	05/20/22 17:07	1
m-Xylene & p-Xylene	<0.000800	U	0.000800		mg/Kg		05/20/22 09:18	05/20/22 17:07	1
o-Xylene	<0.000400	U	0.000400		mg/Kg		05/20/22 09:18	05/20/22 17:07	1
Xylenes, Total	<0.000800	U	0.000800		mg/Kg		05/20/22 09:18	05/20/22 17:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*05/20/22 09:18*	*05/20/22 17:07*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/20/22 09:18*	*05/20/22 17:07*	*1*

Lab Sample ID: LCS 880-25948/1-A
Matrix: Solid
Analysis Batch: 25945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25948

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09412		mg/Kg		94	70 - 130		
Toluene			0.100	0.09678		mg/Kg		97	70 - 130		
Ethylbenzene			0.100	0.09092		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1819		mg/Kg		91	70 - 130		
o-Xylene			0.100	0.09372		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-25948/2-A
Matrix: Solid
Analysis Batch: 25945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25948

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1019		mg/Kg		102	70 - 130	8	35
Toluene			0.100	0.1052		mg/Kg		105	70 - 130	8	35
Ethylbenzene			0.100	0.1051		mg/Kg		105	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.2090		mg/Kg		104	70 - 130	14	35
o-Xylene			0.100	0.1026		mg/Kg		103	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 890-2318-1 MS
Matrix: Solid
Analysis Batch: 25945

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 25948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.0996	0.07008		mg/Kg		70	70 - 130		
Toluene	<0.00201	U F1	0.0996	0.06477	F1	mg/Kg		65	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

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

Lab Sample ID: 890-2318-1 MS
Matrix: Solid
Analysis Batch: 25945

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 25948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U F1	0.0996	0.05908	F1	mg/Kg		59	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.199	0.1160	F1	mg/Kg		57	70 - 130
o-Xylene	0.00314	F1	0.0996	0.05851	F1	mg/Kg		56	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 890-2318-1 MSD
Matrix: Solid
Analysis Batch: 25945

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 25948

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.100	0.08143		mg/Kg		81	70 - 130	15	35
Toluene	<0.00201	U F1	0.100	0.07613		mg/Kg		76	70 - 130	16	35
Ethylbenzene	<0.00201	U F1	0.100	0.06186	F1	mg/Kg		62	70 - 130	5	35
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.1203	F1	mg/Kg		59	70 - 130	4	35
o-Xylene	0.00314	F1	0.100	0.06249	F1	mg/Kg		59	70 - 130	7	35

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

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

Lab Sample ID: MB 880-25960/1-A
Matrix: Solid
Analysis Batch: 25938

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25960

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		05/20/22 09:19	05/20/22 22:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 09:19	05/20/22 22:11	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 09:19	05/20/22 22:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*05/20/22 09:19*	*05/20/22 22:11*	*1*
o-Terphenyl	*126*		*70 - 130*	*05/20/22 09:19*	*05/20/22 22:11*	*1*

Lab Sample ID: LCS 880-25960/2-A
Matrix: Solid
Analysis Batch: 25938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25960

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1081		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)			1000	857.0		mg/Kg		86	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

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

Lab Sample ID: LCS 880-25960/2-A
Matrix: Solid
Analysis Batch: 25938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25960

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

Lab Sample ID: LCSD 880-25960/3-A
Matrix: Solid
Analysis Batch: 25938

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25960

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1191		mg/Kg		119	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	1019		mg/Kg		102	70 - 130	17	20

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

Lab Sample ID: 880-14972-A-21-F MS
Matrix: Solid
Analysis Batch: 25938

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 25960

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	1099		mg/Kg		107	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	780.4		mg/Kg		78	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 880-14972-A-21-G MSD
Matrix: Solid
Analysis Batch: 25938

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 25960

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	948.0		mg/Kg		92	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	759.9		mg/Kg		76	70 - 130	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	97		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

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

Lab Sample ID: MB 880-25967/1-A
Matrix: Solid
Analysis Batch: 25940

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25967

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		05/20/22 10:04	05/20/22 11:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 11:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:04	05/20/22 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*05/20/22 10:04*	*05/20/22 11:37*	*1*
o-Terphenyl	*112*		*70 - 130*	*05/20/22 10:04*	*05/20/22 11:37*	*1*

Lab Sample ID: LCS 880-25967/2-A
Matrix: Solid
Analysis Batch: 25940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25967

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	964.0		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1057		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-25967/3-A
Matrix: Solid
Analysis Batch: 25940

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25967

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	850.0		mg/Kg		85	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1094		mg/Kg		109	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: 890-2318-4 MS
Matrix: Solid
Analysis Batch: 25940

Client Sample ID: FS11
Prep Type: Total/NA
Prep Batch: 25967

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	804.6		mg/Kg		78	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	955.5		mg/Kg		94	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

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

Lab Sample ID: 890-2318-4 MS
Matrix: Solid
Analysis Batch: 25940

Client Sample ID: FS11
Prep Type: Total/NA
Prep Batch: 25967

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-2318-4 MSD
Matrix: Solid
Analysis Batch: 25940

Client Sample ID: FS11
Prep Type: Total/NA
Prep Batch: 25967

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	870.2		mg/Kg		85	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1020		mg/Kg		100	70 - 130	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-25907/1-A
Matrix: Solid
Analysis Batch: 26071

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			05/24/22 13:24	1

Lab Sample ID: LCS 880-25907/2-A
Matrix: Solid
Analysis Batch: 26071

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	256.5		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-25907/3-A
Matrix: Solid
Analysis Batch: 26071

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	250.1		mg/Kg		100	90 - 110	3	20

Lab Sample ID: 890-2318-7 MS
Matrix: Solid
Analysis Batch: 26071

Client Sample ID: FS15
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	18.9		251	280.5		mg/Kg		104	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2318-7 MSD — **Client Sample ID: FS15**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 26071

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	18.9		251	278.7		mg/Kg		103	90 - 110	1	20

Lab Sample ID: MB 880-25905/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 26074

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/23/22 17:26	1

Lab Sample ID: LCS 880-25905/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 26074

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	237.3		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-25905/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 26074

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	237.4		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 890-2317-A-11-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 26074

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	151		249	390.0		mg/Kg		96	90 - 110		

Lab Sample ID: 890-2317-A-11-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 26074

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	151		249	394.6		mg/Kg		98	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

GC VOA

Analysis Batch: 25945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-1	FS01	Total/NA	Solid	8021B	25948
890-2318-2	FS03	Total/NA	Solid	8021B	25948
890-2318-3	FS09	Total/NA	Solid	8021B	25948
890-2318-4	FS11	Total/NA	Solid	8021B	25948
890-2318-5	FS12	Total/NA	Solid	8021B	25948
890-2318-6	FS14	Total/NA	Solid	8021B	25948
890-2318-7	FS15	Total/NA	Solid	8021B	25948
890-2318-8	FS02	Total/NA	Solid	8021B	25948
890-2318-9	FS08	Total/NA	Solid	8021B	25948
890-2318-10	FS13	Total/NA	Solid	8021B	25948
890-2318-11	FS04	Total/NA	Solid	8021B	25948
890-2318-12	FS05	Total/NA	Solid	8021B	25948
890-2318-13	FS06	Total/NA	Solid	8021B	25948
890-2318-14	FS07	Total/NA	Solid	8021B	25948
890-2318-15	FS10	Total/NA	Solid	8021B	25948
890-2318-16	FS16	Total/NA	Solid	8021B	25948
MB 880-25948/5-A	Method Blank	Total/NA	Solid	8021B	25948
LCS 880-25948/1-A	Lab Control Sample	Total/NA	Solid	8021B	25948
LCSD 880-25948/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25948
890-2318-1 MS	FS01	Total/NA	Solid	8021B	25948
890-2318-1 MSD	FS01	Total/NA	Solid	8021B	25948

Prep Batch: 25948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-1	FS01	Total/NA	Solid	5035	
890-2318-2	FS03	Total/NA	Solid	5035	
890-2318-3	FS09	Total/NA	Solid	5035	
890-2318-4	FS11	Total/NA	Solid	5035	
890-2318-5	FS12	Total/NA	Solid	5035	
890-2318-6	FS14	Total/NA	Solid	5035	
890-2318-7	FS15	Total/NA	Solid	5035	
890-2318-8	FS02	Total/NA	Solid	5035	
890-2318-9	FS08	Total/NA	Solid	5035	
890-2318-10	FS13	Total/NA	Solid	5035	
890-2318-11	FS04	Total/NA	Solid	5035	
890-2318-12	FS05	Total/NA	Solid	5035	
890-2318-13	FS06	Total/NA	Solid	5035	
890-2318-14	FS07	Total/NA	Solid	5035	
890-2318-15	FS10	Total/NA	Solid	5035	
890-2318-16	FS16	Total/NA	Solid	5035	
MB 880-25948/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25948/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25948/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2318-1 MS	FS01	Total/NA	Solid	5035	
890-2318-1 MSD	FS01	Total/NA	Solid	5035	

Analysis Batch: 26092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-1	FS01	Total/NA	Solid	Total BTEX	
890-2318-2	FS03	Total/NA	Solid	Total BTEX	
890-2318-3	FS09	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

GC VOA (Continued)

Analysis Batch: 26092 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-4	FS11	Total/NA	Solid	Total BTEX	
890-2318-5	FS12	Total/NA	Solid	Total BTEX	
890-2318-6	FS14	Total/NA	Solid	Total BTEX	
890-2318-7	FS15	Total/NA	Solid	Total BTEX	
890-2318-8	FS02	Total/NA	Solid	Total BTEX	
890-2318-9	FS08	Total/NA	Solid	Total BTEX	
890-2318-10	FS13	Total/NA	Solid	Total BTEX	
890-2318-11	FS04	Total/NA	Solid	Total BTEX	
890-2318-12	FS05	Total/NA	Solid	Total BTEX	
890-2318-13	FS06	Total/NA	Solid	Total BTEX	
890-2318-14	FS07	Total/NA	Solid	Total BTEX	
890-2318-15	FS10	Total/NA	Solid	Total BTEX	
890-2318-16	FS16	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 25938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-15	FS10	Total/NA	Solid	8015B NM	25960
890-2318-16	FS16	Total/NA	Solid	8015B NM	25960
MB 880-25960/1-A	Method Blank	Total/NA	Solid	8015B NM	25960
LCS 880-25960/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	25960
LCSD 880-25960/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	25960
880-14972-A-21-F MS	Matrix Spike	Total/NA	Solid	8015B NM	25960
880-14972-A-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	25960

Analysis Batch: 25940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-1	FS01	Total/NA	Solid	8015B NM	25967
890-2318-2	FS03	Total/NA	Solid	8015B NM	25967
890-2318-3	FS09	Total/NA	Solid	8015B NM	25967
890-2318-4	FS11	Total/NA	Solid	8015B NM	25967
890-2318-5	FS12	Total/NA	Solid	8015B NM	25967
890-2318-6	FS14	Total/NA	Solid	8015B NM	25967
890-2318-7	FS15	Total/NA	Solid	8015B NM	25967
890-2318-8	FS02	Total/NA	Solid	8015B NM	25967
890-2318-9	FS08	Total/NA	Solid	8015B NM	25967
890-2318-10	FS13	Total/NA	Solid	8015B NM	25967
890-2318-11	FS04	Total/NA	Solid	8015B NM	25967
890-2318-12	FS05	Total/NA	Solid	8015B NM	25967
890-2318-13	FS06	Total/NA	Solid	8015B NM	25967
890-2318-14	FS07	Total/NA	Solid	8015B NM	25967
MB 880-25967/1-A	Method Blank	Total/NA	Solid	8015B NM	25967
LCS 880-25967/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	25967
LCSD 880-25967/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	25967
890-2318-4 MS	FS11	Total/NA	Solid	8015B NM	25967
890-2318-4 MSD	FS11	Total/NA	Solid	8015B NM	25967

Prep Batch: 25960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-15	FS10	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

GC Semi VOA (Continued)

Prep Batch: 25960 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-16	FS16	Total/NA	Solid	8015NM Prep	
MB 880-25960/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-25960/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-25960/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-14972-A-21-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-14972-A-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 25967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-1	FS01	Total/NA	Solid	8015NM Prep	
890-2318-2	FS03	Total/NA	Solid	8015NM Prep	
890-2318-3	FS09	Total/NA	Solid	8015NM Prep	
890-2318-4	FS11	Total/NA	Solid	8015NM Prep	
890-2318-5	FS12	Total/NA	Solid	8015NM Prep	
890-2318-6	FS14	Total/NA	Solid	8015NM Prep	
890-2318-7	FS15	Total/NA	Solid	8015NM Prep	
890-2318-8	FS02	Total/NA	Solid	8015NM Prep	
890-2318-9	FS08	Total/NA	Solid	8015NM Prep	
890-2318-10	FS13	Total/NA	Solid	8015NM Prep	
890-2318-11	FS04	Total/NA	Solid	8015NM Prep	
890-2318-12	FS05	Total/NA	Solid	8015NM Prep	
890-2318-13	FS06	Total/NA	Solid	8015NM Prep	
890-2318-14	FS07	Total/NA	Solid	8015NM Prep	
MB 880-25967/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-25967/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-25967/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2318-4 MS	FS11	Total/NA	Solid	8015NM Prep	
890-2318-4 MSD	FS11	Total/NA	Solid	8015NM Prep	

Analysis Batch: 26036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-1	FS01	Total/NA	Solid	8015 NM	
890-2318-2	FS03	Total/NA	Solid	8015 NM	
890-2318-3	FS09	Total/NA	Solid	8015 NM	
890-2318-4	FS11	Total/NA	Solid	8015 NM	
890-2318-5	FS12	Total/NA	Solid	8015 NM	
890-2318-6	FS14	Total/NA	Solid	8015 NM	
890-2318-7	FS15	Total/NA	Solid	8015 NM	
890-2318-8	FS02	Total/NA	Solid	8015 NM	
890-2318-9	FS08	Total/NA	Solid	8015 NM	
890-2318-10	FS13	Total/NA	Solid	8015 NM	
890-2318-11	FS04	Total/NA	Solid	8015 NM	
890-2318-12	FS05	Total/NA	Solid	8015 NM	
890-2318-13	FS06	Total/NA	Solid	8015 NM	
890-2318-14	FS07	Total/NA	Solid	8015 NM	
890-2318-15	FS10	Total/NA	Solid	8015 NM	
890-2318-16	FS16	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

HPLC/IC

Leach Batch: 25905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-1	FS01	Soluble	Solid	DI Leach	
890-2318-2	FS03	Soluble	Solid	DI Leach	
890-2318-3	FS09	Soluble	Solid	DI Leach	
890-2318-4	FS11	Soluble	Solid	DI Leach	
890-2318-5	FS12	Soluble	Solid	DI Leach	
890-2318-6	FS14	Soluble	Solid	DI Leach	
MB 880-25905/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-25905/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-25905/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2317-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2317-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 25907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-7	FS15	Soluble	Solid	DI Leach	
890-2318-8	FS02	Soluble	Solid	DI Leach	
890-2318-9	FS08	Soluble	Solid	DI Leach	
890-2318-10	FS13	Soluble	Solid	DI Leach	
890-2318-11	FS04	Soluble	Solid	DI Leach	
890-2318-12	FS05	Soluble	Solid	DI Leach	
890-2318-13	FS06	Soluble	Solid	DI Leach	
890-2318-14	FS07	Soluble	Solid	DI Leach	
890-2318-15	FS10	Soluble	Solid	DI Leach	
890-2318-16	FS16	Soluble	Solid	DI Leach	
MB 880-25907/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-25907/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-25907/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2318-7 MS	FS15	Soluble	Solid	DI Leach	
890-2318-7 MSD	FS15	Soluble	Solid	DI Leach	

Analysis Batch: 26071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-7	FS15	Soluble	Solid	300.0	25907
890-2318-8	FS02	Soluble	Solid	300.0	25907
890-2318-9	FS08	Soluble	Solid	300.0	25907
890-2318-10	FS13	Soluble	Solid	300.0	25907
890-2318-11	FS04	Soluble	Solid	300.0	25907
890-2318-12	FS05	Soluble	Solid	300.0	25907
890-2318-13	FS06	Soluble	Solid	300.0	25907
890-2318-14	FS07	Soluble	Solid	300.0	25907
890-2318-15	FS10	Soluble	Solid	300.0	25907
890-2318-16	FS16	Soluble	Solid	300.0	25907
MB 880-25907/1-A	Method Blank	Soluble	Solid	300.0	25907
LCS 880-25907/2-A	Lab Control Sample	Soluble	Solid	300.0	25907
LCSD 880-25907/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	25907
890-2318-7 MS	FS15	Soluble	Solid	300.0	25907
890-2318-7 MSD	FS15	Soluble	Solid	300.0	25907

Analysis Batch: 26074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-1	FS01	Soluble	Solid	300.0	25905

QC Association Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

HPLC/IC (Continued)

Analysis Batch: 26074 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2318-2	FS03	Soluble	Solid	300.0	25905
890-2318-3	FS09	Soluble	Solid	300.0	25905
890-2318-4	FS11	Soluble	Solid	300.0	25905
890-2318-5	FS12	Soluble	Solid	300.0	25905
890-2318-6	FS14	Soluble	Solid	300.0	25905
MB 880-25905/1-A	Method Blank	Soluble	Solid	300.0	25905
LCS 880-25905/2-A	Lab Control Sample	Soluble	Solid	300.0	25905
LCSD 880-25905/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	25905
890-2317-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	25905
890-2317-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	25905

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS01
Date Collected: 05/16/22 10:25
Date Received: 05/18/22 13:32

Lab Sample ID: 890-2318-1
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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 17:33	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 16:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		5			26074	05/23/22 21:16	CH	XEN MID

Client Sample ID: FS03
Date Collected: 05/16/22 11:15
Date Received: 05/18/22 13:32

Lab Sample ID: 890-2318-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 17:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 16:31	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 21:25	CH	XEN MID

Client Sample ID: FS09
Date Collected: 05/16/22 12:35
Date Received: 05/18/22 13:32

Lab Sample ID: 890-2318-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 18:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 16:54	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 21:34	CH	XEN MID

Client Sample ID: FS11
Date Collected: 05/17/22 08:15
Date Received: 05/18/22 13:32

Lab Sample ID: 890-2318-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	25945	05/20/22 18:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS11

Lab Sample ID: 890-2318-4
Matrix: Solid
Date Collected: 05/17/22 08:15
Date Received: 05/18/22 13:32

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			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 12:44	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 21:44	CH	XEN MID

Client Sample ID: FS12

Lab Sample ID: 890-2318-5
Matrix: Solid
Date Collected: 05/17/22 08:20
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 19:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 18:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 21:53	CH	XEN MID

Client Sample ID: FS14

Lab Sample ID: 890-2318-6
Matrix: Solid
Date Collected: 05/17/22 08:35
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 19:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 18:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 22:02	CH	XEN MID

Client Sample ID: FS15

Lab Sample ID: 890-2318-7
Matrix: Solid
Date Collected: 05/17/22 08:40
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 20:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 18:53	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS15
Date Collected: 05/17/22 08:40
Date Received: 05/18/22 13:32

Lab Sample ID: 890-2318-7
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			4.98 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 13:52	CH	XEN MID

Client Sample ID: FS02
Date Collected: 05/17/22 12:40
Date Received: 05/18/22 13:32

Lab Sample ID: 890-2318-8
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			5.00 g	5 mL	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 20:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 19:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 14:19	CH	XEN MID

Client Sample ID: FS08
Date Collected: 05/17/22 13:35
Date Received: 05/18/22 13:32

Lab Sample ID: 890-2318-9
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			4.99 g	5 mL	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 21:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 19:37	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 14:28	CH	XEN MID

Client Sample ID: FS13
Date Collected: 05/17/22 13:40
Date Received: 05/18/22 13:32

Lab Sample ID: 890-2318-10
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			5.02 g	5 mL	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 21:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 19:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 14:38	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS04

Lab Sample ID: 890-2318-11

Date Collected: 05/18/22 08:40
Matrix: Solid
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 23:14	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 20:21	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 14:47	CH	XEN MID

Client Sample ID: FS05

Lab Sample ID: 890-2318-12

Date Collected: 05/18/22 08:45
Matrix: Solid
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/20/22 23:40	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 20:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 15:15	CH	XEN MID

Client Sample ID: FS06

Lab Sample ID: 890-2318-13

Date Collected: 05/18/22 08:50
Matrix: Solid
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/21/22 00:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 21:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 15:24	CH	XEN MID

Client Sample ID: FS07

Lab Sample ID: 890-2318-14

Date Collected: 05/18/22 09:55
Matrix: Solid
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/21/22 00:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Client Sample ID: FS07

Lab Sample ID: 890-2318-14

Date Collected: 05/18/22 09:55
Matrix: Solid
Date Received: 05/18/22 13:32

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			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	25967	05/20/22 10:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25940	05/20/22 21:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 15:33	CH	XEN MID

Client Sample ID: FS10

Lab Sample ID: 890-2318-15

Date Collected: 05/18/22 10:00
Matrix: Solid
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/21/22 00:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25960	05/20/22 09:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25938	05/21/22 06:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 15:42	CH	XEN MID

Client Sample ID: FS16

Lab Sample ID: 890-2318-16

Date Collected: 05/18/22 10:05
Matrix: Solid
Date Received: 05/18/22 13:32

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	25948	05/20/22 09:18	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/21/22 01:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26092	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26036	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	25960	05/20/22 09:19	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25938	05/21/22 07:06	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	25907	05/20/22 12:45	CH	XEN MID
Soluble	Analysis	300.0		1			26071	05/24/22 15:52	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

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	T104704400-21-22	06-30-22

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: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 417

Job ID: 890-2318-1
SDG: 03D2024023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2318-1	FS01	Solid	05/16/22 10:25	05/18/22 13:32	0.5
890-2318-2	FS03	Solid	05/16/22 11:15	05/18/22 13:32	0.5
890-2318-3	FS09	Solid	05/16/22 12:35	05/18/22 13:32	0.5
890-2318-4	FS11	Solid	05/17/22 08:15	05/18/22 13:32	0.5
890-2318-5	FS12	Solid	05/17/22 08:20	05/18/22 13:32	0.5
890-2318-6	FS14	Solid	05/17/22 08:35	05/18/22 13:32	0.5
890-2318-7	FS15	Solid	05/17/22 08:40	05/18/22 13:32	0.5
890-2318-8	FS02	Solid	05/17/22 12:40	05/18/22 13:32	1
890-2318-9	FS08	Solid	05/17/22 13:35	05/18/22 13:32	1
890-2318-10	FS13	Solid	05/17/22 13:40	05/18/22 13:32	1
890-2318-11	FS04	Solid	05/18/22 08:40	05/18/22 13:32	1.5
890-2318-12	FS05	Solid	05/18/22 08:45	05/18/22 13:32	1.5
890-2318-13	FS06	Solid	05/18/22 08:50	05/18/22 13:32	1.5
890-2318-14	FS07	Solid	05/18/22 09:55	05/18/22 13:32	1.5
890-2318-15	FS10	Solid	05/18/22 10:00	05/18/22 13:32	1.5
890-2318-16	FS16	Solid	05/18/22 10:05	05/18/22 13:32	0.75

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
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:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	MCA 417	Turn Around	
Project Number:	03D2024023	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	T/M-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.7	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.8	
Total Containers:		Corrected Temperature:	3.6	

ANALYSIS REQUEST

Preservative Codes

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

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	S	5.16.22	1025	0.5'	C	1		x	x	x	
FS03	S	5.16.22	1115	0.5'	C	1		x	x	x	
FS09	S	5.16.22	1235	0.5'	C	1		x	x	x	
FS11	S	5.17.22	815	0.5'	C	1		x	x	x	
FS12	S	5.17.22	820	0.5'	C	1		x	x	x	
FS14	S	5.17.22	835	0.5'	C	1		x	x	x	
FS15	S	5.17.22	840	0.5'	C	1		x	x	x	
FS02	S	5.17.22	1240	1'	C	1		x	x	x	
FS08	S	5.17.22	1335	1'	C	1		x	x	x	
FS13	S	5.17.22	1340	1'	C	1		x	x	x	

890-2318 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr 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	N. Glenn	5/18/22 1:32	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
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:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	MCA 417	Turn Around	
Project Number:	03D2024023	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
FS04	S	5.18.22	840	1.5'	C	1		x	x	x
FS05	S	5.18.22	845	1.5'	C	1		x	x	x
FS06	S	5.18.22	850	1.5'	C	1		x	x	x
FS07	S	5.18.22	955	1.5'	C	1		x	x	x
FS10	S	5.18.22	1000	1.5'	C	1		x	x	x
FS16	S	5.18.22	1005	0.75'	C	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

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		5/18/22 1:32	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2318-1
SDG Number: 03D2024023

Login Number: 2318
List Number: 1
Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2318-1
SDG Number: 03D2024023

Login Number: 2318
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/20/22 09:00 AM

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

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-16985-1
Laboratory Sample Delivery Group: 32.80028, -103.3756669
Client Project/Site: MCA 417 Flowline

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/21/2022 4:08:03 PM

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

Client: Ensolum
Project/Site: MCA 417 Flowline

Laboratory Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 880-16985-1
Project/Site: MCA 417 Flowline SDG: 32.80028, -103.3756669

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Job ID: 880-16985-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-16985-1

Receipt
The samples were received on 7/15/2022 3:07 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 0.4°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-30144 and analytical batch 880-30143 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-29891/2-A) and (MB 880-29891/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-29891 and analytical batch 880-30026 contained Gasoline Range Organics (GRO)-C6-C10, OII Range Organics (Over C28-C36) and Total TPH above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) for preparation batch 880-29891 and analytical batch 880-30026 recovered outside control limits for the following analytes: <AffectedAnalytes>. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Client Sample ID: SS01

Lab Sample ID: 880-16985-1
Matrix: Solid
Date Collected: 07/14/22 09:16
Date Received: 07/15/22 15:07
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000724**	**J**	0.00201	0.000387	mg/Kg		07/21/22 09:27	07/21/22 11:42	1
Toluene	<0.00201	U	0.00201	0.000459	mg/Kg		07/21/22 09:27	07/21/22 11:42	1
Ethylbenzene	<0.00201	U	0.00201	0.000568	mg/Kg		07/21/22 09:27	07/21/22 11:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	0.00102	mg/Kg		07/21/22 09:27	07/21/22 11:42	1
o-Xylene	<0.00201	U	0.00201	0.000346	mg/Kg		07/21/22 09:27	07/21/22 11:42	1
Xylenes, Total	<0.00402	U	0.00402	0.00102	mg/Kg		07/21/22 09:27	07/21/22 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*07/21/22 09:27*	*07/21/22 11:42*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/21/22 09:27*	*07/21/22 11:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	0.00102	mg/Kg			07/21/22 10:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**39.9**	**J**	50.0	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**21.6**	**J B**	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 15:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 15:25	1
Oil Range Organics (Over C28-C36)	**18.3**	**J B**	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 15:25	1
Total TPH	**39.9**	**J B**	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*07/18/22 08:34*	*07/19/22 15:25*	*1*
o-Terphenyl	*87*		*70 - 130*	*07/18/22 08:34*	*07/19/22 15:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.4**		5.04	0.865	mg/Kg			07/20/22 20:14	1

Client Sample ID: SS02

Lab Sample ID: 880-16985-2
Matrix: Solid
Date Collected: 07/14/22 09:18
Date Received: 07/15/22 15:07
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000399	U	0.000399	0.0000768	mg/Kg		07/20/22 13:38	07/21/22 02:02	1
Toluene	<0.000399	U	0.000399	0.0000910	mg/Kg		07/20/22 13:38	07/21/22 02:02	1
Ethylbenzene	<0.000399	U	0.000399	0.000113	mg/Kg		07/20/22 13:38	07/21/22 02:02	1
m-Xylene & p-Xylene	**0.000243**	**J**	0.000798	0.000202	mg/Kg		07/20/22 13:38	07/21/22 02:02	1
o-Xylene	<0.000399	U	0.000399	0.0000687	mg/Kg		07/20/22 13:38	07/21/22 02:02	1
Xylenes, Total	**0.000243**	**J**	0.000798	0.000202	mg/Kg		07/20/22 13:38	07/21/22 02:02	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Client Sample ID: SS02

Lab Sample ID: 880-16985-2
Matrix: Solid
Date Collected: 07/14/22 09:18
Date Received: 07/15/22 15:07
Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*07/20/22 13:38*	*07/21/22 02:02*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*07/20/22 13:38*	*07/21/22 02:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.000243**	**J**	0.000798	0.000202	mg/Kg			07/21/22 10:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**38.2**	**J**	49.9	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**21.4**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 16:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 16:31	1
Oil Range Organics (Over C28-C36)	**16.8**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 16:31	1
Total TPH	**38.2**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*95*		*70 - 130*	*07/18/22 08:34*	*07/19/22 16:31*	*1*
o-Terphenyl	*109*		*70 - 130*	*07/18/22 08:34*	*07/19/22 16:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.3**		4.95	0.850	mg/Kg			07/20/22 20:41	1

Client Sample ID: SS03

Lab Sample ID: 880-16985-3
Matrix: Solid
Date Collected: 07/14/22 09:21
Date Received: 07/15/22 15:07
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000400	U	0.000400	0.0000770	mg/Kg		07/20/22 13:38	07/21/22 02:28	1
Toluene	<0.000400	U	0.000400	0.0000912	mg/Kg		07/20/22 13:38	07/21/22 02:28	1
Ethylbenzene	<0.000400	U	0.000400	0.000113	mg/Kg		07/20/22 13:38	07/21/22 02:28	1
m-Xylene & p-Xylene	<0.000800	U	0.000800	0.000202	mg/Kg		07/20/22 13:38	07/21/22 02:28	1
o-Xylene	<0.000400	U	0.000400	0.0000688	mg/Kg		07/20/22 13:38	07/21/22 02:28	1
Xylenes, Total	<0.000800	U	0.000800	0.000202	mg/Kg		07/20/22 13:38	07/21/22 02:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*07/20/22 13:38*	*07/21/22 02:28*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*07/20/22 13:38*	*07/21/22 02:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000800	U	0.000800	0.000202	mg/Kg			07/21/22 10:10	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Client Sample ID: SS03

Lab Sample ID: 880-16985-3
Matrix: Solid
Date Collected: 07/14/22 09:21
Date Received: 07/15/22 15:07
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	37.6	J	50.0	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20.5	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 16:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 16:53	1
Oil Range Organics (Over C28-C36)	17.1	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 16:53	1
Total TPH	37.6	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*07/18/22 08:34*	*07/19/22 16:53*	*1*
o-Terphenyl	*96*		*70 - 130*	*07/18/22 08:34*	*07/19/22 16:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.0		4.99	0.857	mg/Kg			07/20/22 20:50	1

Client Sample ID: SS04

Lab Sample ID: 880-16985-4
Matrix: Solid
Date Collected: 07/14/22 09:23
Date Received: 07/15/22 15:07
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000403	U	0.000403	0.0000776	mg/Kg		07/20/22 13:38	07/21/22 02:53	1
Toluene	<0.000403	U	0.000403	0.0000919	mg/Kg		07/20/22 13:38	07/21/22 02:53	1
Ethylbenzene	<0.000403	U	0.000403	0.000114	mg/Kg		07/20/22 13:38	07/21/22 02:53	1
m-Xylene & p-Xylene	<0.000806	U	0.000806	0.000204	mg/Kg		07/20/22 13:38	07/21/22 02:53	1
o-Xylene	<0.000403	U	0.000403	0.0000694	mg/Kg		07/20/22 13:38	07/21/22 02:53	1
Xylenes, Total	<0.000806	U	0.000806	0.000204	mg/Kg		07/20/22 13:38	07/21/22 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*07/20/22 13:38*	*07/21/22 02:53*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*07/20/22 13:38*	*07/21/22 02:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000806	U	0.000806	0.000204	mg/Kg			07/21/22 10:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	33.5	J	50.0	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	17.6	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:15	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Client Sample ID: SS04

Date Collected: 07/14/22 09:23
Date Received: 07/15/22 15:07
Sample Depth: 0.5

Lab Sample ID: 880-16985-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	15.9	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:15	1
Total TPH	33.5	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*07/18/22 08:34*	*07/19/22 17:15*	*1*
o-Terphenyl	*112*		*70 - 130*	*07/18/22 08:34*	*07/19/22 17:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36.8		5.00	0.858	mg/Kg			07/20/22 21:00	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-16985-1	SS01	112	91
880-16985-1 MS	SS01	107	87
880-16985-1 MSD	SS01	118	94
880-16985-2	SS02	111	93
880-16985-3	SS03	113	93
880-16985-4	SS04	114	98
890-2563-A-1-H MS	Matrix Spike	107	102
890-2563-A-1-I MSD	Matrix Spike Duplicate	98	103
LCS 880-30144/1-A	Lab Control Sample	102	108
LCS 880-30209/1-A	Lab Control Sample	116	93
LCSD 880-30144/2-A	Lab Control Sample Dup	102	97
LCSD 880-30209/2-A	Lab Control Sample Dup	96	104
MB 880-30144/5-A	Method Blank	74	96
MB 880-30209/5-A	Method Blank	101	104

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-16985-1	SS01	76	87
880-16985-1 MS	SS01	86	85
880-16985-1 MSD	SS01	88	85
880-16985-2	SS02	95	109
880-16985-3	SS03	84	96
880-16985-4	SS04	94	112
LCS 880-29891/2-A	Lab Control Sample	133 S1+	137 S1+
LCSD 880-29891/3-A	Lab Control Sample Dup	123	126
MB 880-29891/1-A	Method Blank	129	157 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-30144/5-A
Matrix: Solid
Analysis Batch: 30143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30144

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000400	U	0.000400	0.0000770	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
Toluene	<0.000400	U	0.000400	0.0000912	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
Ethylbenzene	<0.000400	U	0.000400	0.000113	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
m-Xylene & p-Xylene	<0.000800	U	0.000800	0.000202	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
o-Xylene	<0.000400	U	0.000400	0.0000688	mg/Kg		07/20/22 13:38	07/20/22 16:53	1
Xylenes, Total	<0.000800	U	0.000800	0.000202	mg/Kg		07/20/22 13:38	07/20/22 16:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*07/20/22 13:38*	*07/20/22 16:53*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/20/22 13:38*	*07/20/22 16:53*	*1*

Lab Sample ID: LCS 880-30144/1-A
Matrix: Solid
Analysis Batch: 30143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30144

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09565		mg/Kg		96	70 - 130		
Toluene			0.100	0.08912		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.09670		mg/Kg		97	70 - 130		
m-Xylene & p-Xylene			0.200	0.1865		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.1011		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-30144/2-A
Matrix: Solid
Analysis Batch: 30143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30144

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08707		mg/Kg		87	70 - 130	9	35
Toluene			0.100	0.08620		mg/Kg		86	70 - 130	3	35
Ethylbenzene			0.100	0.09094		mg/Kg		91	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1750		mg/Kg		87	70 - 130	6	35
o-Xylene			0.100	0.09566		mg/Kg		96	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 880-30209/5-A
Matrix: Solid
Analysis Batch: 30192

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30209

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg		07/21/22 09:27	07/21/22 11:20	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg		07/21/22 09:27	07/21/22 11:20	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

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

Lab Sample ID: MB 880-30209/5-A
Matrix: Solid
Analysis Batch: 30192

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30209

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg		07/21/22 09:27	07/21/22 11:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg		07/21/22 09:27	07/21/22 11:20	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg		07/21/22 09:27	07/21/22 11:20	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg		07/21/22 09:27	07/21/22 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*07/21/22 09:27*	*07/21/22 11:20*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*07/21/22 09:27*	*07/21/22 11:20*	*1*

Lab Sample ID: LCS 880-30209/1-A
Matrix: Solid
Analysis Batch: 30192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30209

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08401		mg/Kg		84	70 - 130		
Toluene			0.100	0.09906		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.1113		mg/Kg		111	70 - 130		
m-Xylene & p-Xylene			0.200	0.2318		mg/Kg		116	70 - 130		
o-Xylene			0.100	0.1269		mg/Kg		127	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-30209/2-A
Matrix: Solid
Analysis Batch: 30192

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30209

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1030		mg/Kg		103	70 - 130	20	35
Toluene			0.100	0.09343		mg/Kg		93	70 - 130	6	35
Ethylbenzene			0.100	0.09535		mg/Kg		95	70 - 130	15	35
m-Xylene & p-Xylene			0.200	0.1889		mg/Kg		94	70 - 130	20	35
o-Xylene			0.100	0.1032		mg/Kg		103	70 - 130	21	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 880-16985-1 MS
Matrix: Solid
Analysis Batch: 30192

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 30209

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	0.000724	J	0.0998	0.07821		mg/Kg		78	70 - 130		
Toluene	<0.00201	U	0.0998	0.09070		mg/Kg		91	70 - 130		
Ethylbenzene	<0.00201	U	0.0998	0.09555		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1898		mg/Kg		95	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

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

Lab Sample ID: 880-16985-1 MS
Matrix: Solid
Analysis Batch: 30192

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 30209

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	<0.00201	U	0.0998	0.1013		mg/Kg		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 880-16985-1 MSD
Matrix: Solid
Analysis Batch: 30192

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 30209

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.000724	J	0.100	0.08560		mg/Kg		85	70 - 130	9	35
Toluene	<0.00201	U	0.100	0.09653		mg/Kg		96	70 - 130	6	35
Ethylbenzene	<0.00201	U	0.100	0.1057		mg/Kg		105	70 - 130	10	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2190		mg/Kg		109	70 - 130	14	35
o-Xylene	<0.00201	U	0.100	0.1191		mg/Kg		119	70 - 130	16	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

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

Lab Sample ID: MB 880-29891/1-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29891

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20.88	J	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 14:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 14:19	1
OII Range Organics (Over C28-C36)	19.17	J	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 14:19	1
Total TPH	40.05	J	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 14:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*07/18/22 08:34*	*07/19/22 14:19*	*1*
o-Terphenyl	*157*	*S1+*	*70 - 130*	*07/18/22 08:34*	*07/19/22 14:19*	*1*

Lab Sample ID: LCS 880-29891/2-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29891

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1227		mg/Kg		123	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1345	*+	mg/Kg		135	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

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

Lab Sample ID: LCS 880-29891/2-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29891

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	133	S1+	70 - 130
o-Terphenyl	137	S1+	70 - 130

Lab Sample ID: LCSD 880-29891/3-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1141		mg/Kg		114	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1241		mg/Kg		124	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	126		70 - 130

Lab Sample ID: 880-16985-1 MS
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29891

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	21.6	J B	1000	1013		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *+	1000	875.1		mg/Kg		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 880-16985-1 MSD
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 29891

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	21.6	J B	999	1034		mg/Kg		101	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U *+	999	865.2		mg/Kg		87	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	85		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29896/1-A
Matrix: Solid
Analysis Batch: 29940

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	0.858	mg/Kg			07/20/22 19:46	1

Lab Sample ID: LCS 880-29896/2-A
Matrix: Solid
Analysis Batch: 29940

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.2		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-29896/3-A
Matrix: Solid
Analysis Batch: 29940

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	259.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-16985-1 MS
Matrix: Solid
Analysis Batch: 29940

Client Sample ID: SS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	11.4		252	277.1		mg/Kg		105	90 - 110		

Lab Sample ID: 880-16985-1 MSD
Matrix: Solid
Analysis Batch: 29940

Client Sample ID: SS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	11.4		252	276.4		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

GC VOA

Analysis Batch: 30143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-2	SS02	Total/NA	Solid	8021B	30144
880-16985-3	SS03	Total/NA	Solid	8021B	30144
880-16985-4	SS04	Total/NA	Solid	8021B	30144
MB 880-30144/5-A	Method Blank	Total/NA	Solid	8021B	30144
LCS 880-30144/1-A	Lab Control Sample	Total/NA	Solid	8021B	30144
LCSD 880-30144/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30144

Prep Batch: 30144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-2	SS02	Total/NA	Solid	5035	
880-16985-3	SS03	Total/NA	Solid	5035	
880-16985-4	SS04	Total/NA	Solid	5035	
MB 880-30144/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30144/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30144/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 30192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-1	SS01	Total/NA	Solid	8021B	30209
MB 880-30209/5-A	Method Blank	Total/NA	Solid	8021B	30209
LCS 880-30209/1-A	Lab Control Sample	Total/NA	Solid	8021B	30209
LCSD 880-30209/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30209
880-16985-1 MS	SS01	Total/NA	Solid	8021B	30209
880-16985-1 MSD	SS01	Total/NA	Solid	8021B	30209

Prep Batch: 30209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-1	SS01	Total/NA	Solid	5035	
MB 880-30209/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30209/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30209/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16985-1 MS	SS01	Total/NA	Solid	5035	
880-16985-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 30219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-1	SS01	Total/NA	Solid	Total BTEX	
880-16985-2	SS02	Total/NA	Solid	Total BTEX	
880-16985-3	SS03	Total/NA	Solid	Total BTEX	
880-16985-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 29891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-1	SS01	Total/NA	Solid	8015NM Prep	
880-16985-2	SS02	Total/NA	Solid	8015NM Prep	
880-16985-3	SS03	Total/NA	Solid	8015NM Prep	
880-16985-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

GC Semi VOA (Continued)

Prep Batch: 29891 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16985-1 MS	SS01	Total/NA	Solid	8015NM Prep	
880-16985-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 30026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-1	SS01	Total/NA	Solid	8015B NM	29891
880-16985-2	SS02	Total/NA	Solid	8015B NM	29891
880-16985-3	SS03	Total/NA	Solid	8015B NM	29891
880-16985-4	SS04	Total/NA	Solid	8015B NM	29891
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015B NM	29891
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29891
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29891
880-16985-1 MS	SS01	Total/NA	Solid	8015B NM	29891
880-16985-1 MSD	SS01	Total/NA	Solid	8015B NM	29891

Analysis Batch: 30105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-1	SS01	Total/NA	Solid	8015 NM	
880-16985-2	SS02	Total/NA	Solid	8015 NM	
880-16985-3	SS03	Total/NA	Solid	8015 NM	
880-16985-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-1	SS01	Soluble	Solid	DI Leach	
880-16985-2	SS02	Soluble	Solid	DI Leach	
880-16985-3	SS03	Soluble	Solid	DI Leach	
880-16985-4	SS04	Soluble	Solid	DI Leach	
MB 880-29896/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29896/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29896/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-16985-1 MS	SS01	Soluble	Solid	DI Leach	
880-16985-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 29940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16985-1	SS01	Soluble	Solid	300.0	29896
880-16985-2	SS02	Soluble	Solid	300.0	29896
880-16985-3	SS03	Soluble	Solid	300.0	29896
880-16985-4	SS04	Soluble	Solid	300.0	29896
MB 880-29896/1-A	Method Blank	Soluble	Solid	300.0	29896
LCS 880-29896/2-A	Lab Control Sample	Soluble	Solid	300.0	29896
LCSD 880-29896/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29896
880-16985-1 MS	SS01	Soluble	Solid	300.0	29896
880-16985-1 MSD	SS01	Soluble	Solid	300.0	29896

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Client Sample ID: SS01
Date Collected: 07/14/22 09:16
Date Received: 07/15/22 15:07

Lab Sample ID: 880-16985-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30209	07/21/22 09:27	MR	XEN MID
Total/NA	Analysis	8021B		1	30192	07/21/22 11:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30219	07/21/22 10:10	SM	XEN MID
Total/NA	Analysis	8015 NM		1	30105	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 15:25	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 20:14	CH	XEN MID

Client Sample ID: SS02
Date Collected: 07/14/22 09:18
Date Received: 07/15/22 15:07

Lab Sample ID: 880-16985-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30144	07/20/22 13:38	MR	XEN MID
Total/NA	Analysis	8021B		1	30143	07/21/22 02:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30219	07/21/22 10:10	SM	XEN MID
Total/NA	Analysis	8015 NM		1	30105	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 16:31	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 20:41	CH	XEN MID

Client Sample ID: SS03
Date Collected: 07/14/22 09:21
Date Received: 07/15/22 15:07

Lab Sample ID: 880-16985-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30144	07/20/22 13:38	MR	XEN MID
Total/NA	Analysis	8021B		1	30143	07/21/22 02:28	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30219	07/21/22 10:10	SM	XEN MID
Total/NA	Analysis	8015 NM		1	30105	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 16:53	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 20:50	CH	XEN MID

Client Sample ID: SS04
Date Collected: 07/14/22 09:23
Date Received: 07/15/22 15:07

Lab Sample ID: 880-16985-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30144	07/20/22 13:38	MR	XEN MID
Total/NA	Analysis	8021B		1	30143	07/21/22 02:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30219	07/21/22 10:10	SM	XEN MID

Eurofins Midland

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Client Sample ID: SS04
Date Collected: 07/14/22 09:23
Date Received: 07/15/22 15:07

Lab Sample ID: 880-16985-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	30105	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 17:15	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 21:00	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16985-1
SDG: 32.80028, -103.3756669

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-16985-1	SS01	Solid	07/14/22 09:16	07/15/22 15:07	0.5
880-16985-2	SS02	Solid	07/14/22 09:18	07/15/22 15:07	0.5
880-16985-3	SS03	Solid	07/14/22 09:21	07/15/22 15:07	0.5
880-16985-4	SS04	Solid	07/14/22 09:23	07/15/22 15:07	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: 16985

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Project Manager	KALEI JENNINGS	Bill to (if different)	KALEI JENNINGS
Company Name.	Ensolum, LLC	Company Name	
Address	601 N Marienfeld Street, Suite 400	Address.	
City, State ZIP	Midland, TX 79701	City, State ZIP	
Phone.	Email	KJENNINGS@ENSOLUM.COM	

Work Order Comments

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

Project Name	MCA 417 FLOWLINE	Turn Around	
Project Number	03D2057014	☒ Routine ☐ Rush	
Project Location	32.000028, -103.756889	Due Date	5 DAY
Sampler's Name:	HADUE GREEN	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	IR6	
Cooler Custody Seals.	Yes No (N/A)	Correction Factor	+.26	
Sample Custody Seals.	Yes No (N/A)	Temperature Reading	2	
Total Containers:		Corrected Temperature:	1.4	

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: TPH 8015	BTEX 8021	CHLORIDES 300	Sample Comments
SS01	SL	7-14-22	0916	0.5	G	1		X	X	X	402
SS02	↓	↓	0918	↓	G	↓		↓	↓	↓	
SS03			0921		G						
SS04	↓	↓	0923	↓	G	↓		↓	↓	↓	

880-16985 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr 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 Hadlie Green		7/15/22	2		
3		18 07	4		
5			6		

Revised Date 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-16985-1
SDG Number: 32.80028, -103.3756669

Login Number: 16985
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

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ANALYTICAL REPORT

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Tel: (432)704-5440

Laboratory Job ID: 880-16986-1
Laboratory Sample Delivery Group: 32.80028, -103.756569
Client Project/Site: MCA 417 Flowline

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/21/2022 9:53:31 AM

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

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

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

Client: Ensolum
Project/Site: MCA 417 Flowline

Laboratory Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 880-16986-1
Project/Site: MCA 417 Flowline SDG: 32.80028, -103.756569

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Job ID: 880-16986-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-16986-1

Receipt
The samples were received on 7/15/2022 3:07 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 0.4°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-29891/2-A) and (MB 880-29891/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-29891 and analytical batch 880-30026 contained Gasoline Range Organics (GRO)-C6-C10, OII Range Organics (Over C28-C36) and Total TPH above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) for preparation batch 880-29891 and analytical batch 880-30026 recovered outside control limits for the following analytes: <AffectedAnalytes>. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Client Sample ID: FS01A

Lab Sample ID: 880-16986-1
Matrix: Solid
Date Collected: 07/14/22 09:03
Date Received: 07/15/22 15:07
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383	mg/Kg		07/20/22 15:07	07/21/22 01:14	1
Toluene	**0.000803**	**J**	0.00199	0.000453	mg/Kg		07/20/22 15:07	07/21/22 01:14	1
Ethylbenzene	**0.00107**	**J**	0.00199	0.000562	mg/Kg		07/20/22 15:07	07/21/22 01:14	1
m-Xylene & p-Xylene	**0.00114**	**J**	0.00398	0.00100	mg/Kg		07/20/22 15:07	07/21/22 01:14	1
o-Xylene	<0.00199	U	0.00199	0.000342	mg/Kg		07/20/22 15:07	07/21/22 01:14	1
Xylenes, Total	**0.00114**	**J**	0.00398	0.00100	mg/Kg		07/20/22 15:07	07/21/22 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*07/20/22 15:07*	*07/21/22 01:14*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/20/22 15:07*	*07/21/22 01:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00301**	**J**	0.00398	0.00100	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**34.0**	**J**	49.9	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**18.3**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:36	1
Oil Range Organics (Over C28-C36)	**15.7**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:36	1
Total TPH	**34.0**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*07/18/22 08:34*	*07/19/22 17:36*	*1*
o-Terphenyl	*109*		*70 - 130*	*07/18/22 08:34*	*07/19/22 17:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33.9**		4.96	0.851	mg/Kg			07/20/22 21:09	1

Client Sample ID: FS03A

Lab Sample ID: 880-16986-2
Matrix: Solid
Date Collected: 07/14/22 09:05
Date Received: 07/15/22 15:07
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	0.000388	mg/Kg		07/20/22 15:07	07/21/22 01:35	1
Toluene	<0.00202	U	0.00202	0.000460	mg/Kg		07/20/22 15:07	07/21/22 01:35	1
Ethylbenzene	<0.00202	U	0.00202	0.000570	mg/Kg		07/20/22 15:07	07/21/22 01:35	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	0.00102	mg/Kg		07/20/22 15:07	07/21/22 01:35	1
o-Xylene	<0.00202	U	0.00202	0.000347	mg/Kg		07/20/22 15:07	07/21/22 01:35	1
Xylenes, Total	<0.00403	U	0.00403	0.00102	mg/Kg		07/20/22 15:07	07/21/22 01:35	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Client Sample ID: FS03A

Lab Sample ID: 880-16986-2
Matrix: Solid
Date Collected: 07/14/22 09:05
Date Received: 07/15/22 15:07
Sample Depth: 1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*07/20/22 15:07*	*07/21/22 01:35*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*07/20/22 15:07*	*07/21/22 01:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	0.00102	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**35.0**	**J**	49.9	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**19.3**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:58	1
Oil Range Organics (Over C28-C36)	**15.7**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:58	1
Total TPH	**35.0**	**J B**	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*07/18/22 08:34*	*07/19/22 17:58*	*1*
o-Terphenyl	*117*		*70 - 130*	*07/18/22 08:34*	*07/19/22 17:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.5**		4.95	0.850	mg/Kg			07/20/22 21:37	1

Client Sample ID: FS04A

Lab Sample ID: 880-16986-3
Matrix: Solid
Date Collected: 07/14/22 09:07
Date Received: 07/15/22 15:07
Sample Depth: 1.75

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000386	mg/Kg		07/20/22 15:07	07/21/22 01:55	1
Toluene	<0.00200	U	0.00200	0.000457	mg/Kg		07/20/22 15:07	07/21/22 01:55	1
Ethylbenzene	<0.00200	U	0.00200	0.000566	mg/Kg		07/20/22 15:07	07/21/22 01:55	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	0.00101	mg/Kg		07/20/22 15:07	07/21/22 01:55	1
o-Xylene	<0.00200	U	0.00200	0.000345	mg/Kg		07/20/22 15:07	07/21/22 01:55	1
Xylenes, Total	<0.00401	U	0.00401	0.00101	mg/Kg		07/20/22 15:07	07/21/22 01:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*07/20/22 15:07*	*07/21/22 01:55*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*07/20/22 15:07*	*07/21/22 01:55*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	0.00101	mg/Kg			07/21/22 08:55	1

Eurofins Midland

Client Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Client Sample ID: FS04A

Lab Sample ID: 880-16986-3
Matrix: Solid
Date Collected: 07/14/22 09:07
Date Received: 07/15/22 15:07
Sample Depth: 1.75

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	35.3	J	49.9	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	19.4	J B	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 18:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 18:20	1
Oil Range Organics (Over C28-C36)	15.9	J B	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 18:20	1
Total TPH	35.3	J B	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*07/18/22 08:34*	*07/19/22 18:20*	*1*
o-Terphenyl	*117*		*70 - 130*	*07/18/22 08:34*	*07/19/22 18:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.3		5.01	0.860	mg/Kg			07/20/22 21:46	1

Client Sample ID: FS14A

Lab Sample ID: 880-16986-4
Matrix: Solid
Date Collected: 07/14/22 08:53
Date Received: 07/15/22 15:07
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000384	mg/Kg		07/20/22 15:07	07/21/22 02:16	1
Toluene	<0.00200	U	0.00200	0.000455	mg/Kg		07/20/22 15:07	07/21/22 02:16	1
Ethylbenzene	<0.00200	U	0.00200	0.000564	mg/Kg		07/20/22 15:07	07/21/22 02:16	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	0.00101	mg/Kg		07/20/22 15:07	07/21/22 02:16	1
o-Xylene	<0.00200	U	0.00200	0.000343	mg/Kg		07/20/22 15:07	07/21/22 02:16	1
Xylenes, Total	<0.00399	U	0.00399	0.00101	mg/Kg		07/20/22 15:07	07/21/22 02:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*07/20/22 15:07*	*07/21/22 02:16*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/20/22 15:07*	*07/21/22 02:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	0.00101	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	36.5	J	49.9	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20.2	J B	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 18:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 18:41	1

Client Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Client Sample ID: FS14A

Lab Sample ID: 880-16986-4
Matrix: Solid
Date Collected: 07/14/22 08:53
Date Received: 07/15/22 15:07
Sample Depth: 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	16.3	J B	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 18:41	1
Total TPH	36.5	J B	49.9	15.0	mg/Kg		07/18/22 08:34	07/19/22 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*07/18/22 08:34*	*07/19/22 18:41*	*1*
o-Terphenyl	*111*		*70 - 130*	*07/18/22 08:34*	*07/19/22 18:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.9		4.97	0.853	mg/Kg			07/20/22 21:55	1

Client Sample ID: FS16A

Lab Sample ID: 880-16986-5
Matrix: Solid
Date Collected: 07/14/22 08:53
Date Received: 07/15/22 15:07
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.000383	mg/Kg		07/20/22 15:07	07/21/22 02:36	1
Toluene	<0.00199	U	0.00199	0.000453	mg/Kg		07/20/22 15:07	07/21/22 02:36	1
Ethylbenzene	<0.00199	U	0.00199	0.000562	mg/Kg		07/20/22 15:07	07/21/22 02:36	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00100	mg/Kg		07/20/22 15:07	07/21/22 02:36	1
o-Xylene	<0.00199	U	0.00199	0.000342	mg/Kg		07/20/22 15:07	07/21/22 02:36	1
Xylenes, Total	<0.00398	U	0.00398	0.00100	mg/Kg		07/20/22 15:07	07/21/22 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*07/20/22 15:07*	*07/21/22 02:36*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*07/20/22 15:07*	*07/21/22 02:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	0.00100	mg/Kg			07/21/22 08:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	35.5	J	50.0	15.0	mg/Kg			07/20/22 10:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	19.2	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 19:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 19:04	1
Oil Range Organics (Over C28-C36)	16.3	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 19:04	1
Total TPH	35.5	J B	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*07/18/22 08:34*	*07/19/22 19:04*	*1*
o-Terphenyl	*104*		*70 - 130*	*07/18/22 08:34*	*07/19/22 19:04*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Client Sample ID: FS16A
Date Collected: 07/14/22 08:53
Date Received: 07/15/22 15:07
Sample Depth: 1

Lab Sample ID: 880-16986-5
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.9		4.98	0.855	mg/Kg			07/20/22 22:04	1

Surrogate Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-16986-1	FS01A	111	91										
880-16986-1 MS	FS01A	108	97										
880-16986-1 MSD	FS01A	109	88										
880-16986-2	FS03A	108	85										
880-16986-3	FS04A	105	94										
880-16986-4	FS14A	114	96										
880-16986-5	FS16A	109	93										
LCS 880-30163/1-A	Lab Control Sample	101	97										
LCSD 880-30163/2-A	Lab Control Sample Dup	108	89										
MB 880-29817/5-A	Method Blank	98	96										
MB 880-30163/5-A	Method Blank	99	91										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-16985-A-1-E MS	Matrix Spike	86	85										
880-16985-A-1-F MSD	Matrix Spike Duplicate	88	85										
880-16986-1	FS01A	97	109										
880-16986-2	FS03A	99	117										
880-16986-3	FS04A	101	117										
880-16986-4	FS14A	99	111										
880-16986-5	FS16A	89	104										
LCS 880-29891/2-A	Lab Control Sample	133 S1+	137 S1+										
LCSD 880-29891/3-A	Lab Control Sample Dup	123	126										
MB 880-29891/1-A	Method Blank	129	157 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29817/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29817

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg		07/15/22 09:11	07/20/22 12:46	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg		07/15/22 09:11	07/20/22 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*07/15/22 09:11*	*07/20/22 12:46*	*1*

Lab Sample ID: MB 880-30163/5-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30163

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.000385	mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Toluene	<0.00200	U	0.00200	0.000456	mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Ethylbenzene	<0.00200	U	0.00200	0.000565	mg/Kg		07/20/22 15:07	07/21/22 00:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00101	mg/Kg		07/20/22 15:07	07/21/22 00:45	1
o-Xylene	<0.00200	U	0.00200	0.000344	mg/Kg		07/20/22 15:07	07/21/22 00:45	1
Xylenes, Total	<0.00400	U	0.00400	0.00101	mg/Kg		07/20/22 15:07	07/21/22 00:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*07/20/22 15:07*	*07/21/22 00:45*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/20/22 15:07*	*07/21/22 00:45*	*1*

Lab Sample ID: LCS 880-30163/1-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30163

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09760		mg/Kg		98	70 - 130		
Toluene			0.100	0.09147		mg/Kg		91	70 - 130		
Ethylbenzene			0.100	0.09166		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1917		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.1022		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-30163/2-A
Matrix: Solid
Analysis Batch: 30096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 30163

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08114		mg/Kg		81	70 - 130	18	35

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QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

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

Lab Sample ID: LCSD 880-30163/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30096 — **Prep Batch: 30163**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08827		mg/Kg		88	70 - 130	4	35
Ethylbenzene			0.100	0.08806		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1900		mg/Kg		95	70 - 130	1	35
o-Xylene			0.100	0.1016		mg/Kg		102	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 880-16986-1 MS — **Client Sample ID: FS01A**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30096 — **Prep Batch: 30163**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.07298		mg/Kg		73	70 - 130
Toluene	0.000803	J	0.0998	0.07635		mg/Kg		76	70 - 130
Ethylbenzene	0.00107	J	0.0998	0.07801		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	0.00114	J	0.200	0.1671		mg/Kg		83	70 - 130
o-Xylene	<0.00199	U	0.0998	0.09155		mg/Kg		92	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-16986-1 MSD — **Client Sample ID: FS01A**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30096 — **Prep Batch: 30163**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07246		mg/Kg		72	70 - 130	1	35
Toluene	0.000803	J	0.100	0.08286		mg/Kg		82	70 - 130	8	35
Ethylbenzene	0.00107	J	0.100	0.08532		mg/Kg		84	70 - 130	9	35
m-Xylene & p-Xylene	0.00114	J	0.201	0.1839		mg/Kg		91	70 - 130	10	35
o-Xylene	<0.00199	U	0.100	0.1004		mg/Kg		100	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

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

Lab Sample ID: MB 880-29891/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 30026 — **Prep Batch: 29891**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20.88	J	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 14:19	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

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

Lab Sample ID: MB 880-29891/1-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 29891

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 14:19	1
OII Range Organics (Over C28-C36)	19.17	J	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 14:19	1
Total TPH	40.05	J	50.0	15.0	mg/Kg		07/18/22 08:34	07/19/22 14:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*07/18/22 08:34*	*07/19/22 14:19*	*1*
o-Terphenyl	*157*	*S1+*	*70 - 130*	*07/18/22 08:34*	*07/19/22 14:19*	*1*

Lab Sample ID: LCS 880-29891/2-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1227		mg/Kg		123	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1345	*+	mg/Kg		135	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*133*	*S1+*	*70 - 130*
o-Terphenyl	*137*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-29891/3-A
Matrix: Solid
Analysis Batch: 30026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 29891

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1141		mg/Kg		114	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1241		mg/Kg		124	70 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*123*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29896/1-A
Matrix: Solid
Analysis Batch: 29940

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	0.858	mg/Kg			07/20/22 19:46	1

QC Sample Results

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-29896/2-A
Matrix: Solid
Analysis Batch: 29940

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	259.2		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-29896/3-A
Matrix: Solid
Analysis Batch: 29940

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	259.0		mg/Kg		104	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

GC VOA

Prep Batch: 29817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-29817/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 30096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16986-1	FS01A	Total/NA	Solid	8021B	30163
880-16986-2	FS03A	Total/NA	Solid	8021B	30163
880-16986-3	FS04A	Total/NA	Solid	8021B	30163
880-16986-4	FS14A	Total/NA	Solid	8021B	30163
880-16986-5	FS16A	Total/NA	Solid	8021B	30163
MB 880-29817/5-A	Method Blank	Total/NA	Solid	8021B	29817
MB 880-30163/5-A	Method Blank	Total/NA	Solid	8021B	30163
LCS 880-30163/1-A	Lab Control Sample	Total/NA	Solid	8021B	30163
LCSD 880-30163/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30163
880-16986-1 MS	FS01A	Total/NA	Solid	8021B	30163
880-16986-1 MSD	FS01A	Total/NA	Solid	8021B	30163

Prep Batch: 30163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16986-1	FS01A	Total/NA	Solid	5035	
880-16986-2	FS03A	Total/NA	Solid	5035	
880-16986-3	FS04A	Total/NA	Solid	5035	
880-16986-4	FS14A	Total/NA	Solid	5035	
880-16986-5	FS16A	Total/NA	Solid	5035	
MB 880-30163/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30163/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30163/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16986-1 MS	FS01A	Total/NA	Solid	5035	
880-16986-1 MSD	FS01A	Total/NA	Solid	5035	

Analysis Batch: 30200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16986-1	FS01A	Total/NA	Solid	Total BTEX	
880-16986-2	FS03A	Total/NA	Solid	Total BTEX	
880-16986-3	FS04A	Total/NA	Solid	Total BTEX	
880-16986-4	FS14A	Total/NA	Solid	Total BTEX	
880-16986-5	FS16A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 29891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16986-1	FS01A	Total/NA	Solid	8015NM Prep	
880-16986-2	FS03A	Total/NA	Solid	8015NM Prep	
880-16986-3	FS04A	Total/NA	Solid	8015NM Prep	
880-16986-4	FS14A	Total/NA	Solid	8015NM Prep	
880-16986-5	FS16A	Total/NA	Solid	8015NM Prep	
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

GC Semi VOA

Analysis Batch: 30026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16986-1	FS01A	Total/NA	Solid	8015B NM	29891
880-16986-2	FS03A	Total/NA	Solid	8015B NM	29891
880-16986-3	FS04A	Total/NA	Solid	8015B NM	29891
880-16986-4	FS14A	Total/NA	Solid	8015B NM	29891
880-16986-5	FS16A	Total/NA	Solid	8015B NM	29891
MB 880-29891/1-A	Method Blank	Total/NA	Solid	8015B NM	29891
LCS 880-29891/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29891
LCSD 880-29891/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29891

Analysis Batch: 30106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16986-1	FS01A	Total/NA	Solid	8015 NM	
880-16986-2	FS03A	Total/NA	Solid	8015 NM	
880-16986-3	FS04A	Total/NA	Solid	8015 NM	
880-16986-4	FS14A	Total/NA	Solid	8015 NM	
880-16986-5	FS16A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16986-1	FS01A	Soluble	Solid	DI Leach	
880-16986-2	FS03A	Soluble	Solid	DI Leach	
880-16986-3	FS04A	Soluble	Solid	DI Leach	
880-16986-4	FS14A	Soluble	Solid	DI Leach	
880-16986-5	FS16A	Soluble	Solid	DI Leach	
MB 880-29896/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29896/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29896/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 29940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16986-1	FS01A	Soluble	Solid	300.0	29896
880-16986-2	FS03A	Soluble	Solid	300.0	29896
880-16986-3	FS04A	Soluble	Solid	300.0	29896
880-16986-4	FS14A	Soluble	Solid	300.0	29896
880-16986-5	FS16A	Soluble	Solid	300.0	29896
MB 880-29896/1-A	Method Blank	Soluble	Solid	300.0	29896
LCS 880-29896/2-A	Lab Control Sample	Soluble	Solid	300.0	29896
LCSD 880-29896/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29896

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Client Sample ID: FS01A
Lab Sample ID: 880-16986-1
Date Collected: 07/14/22 09:03
Matrix: Solid
Date Received: 07/15/22 15:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	30096	07/21/22 01:14	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30200	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1	30106	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 17:36	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 21:09	CH	XEN MID

Client Sample ID: FS03A
Lab Sample ID: 880-16986-2
Date Collected: 07/14/22 09:05
Matrix: Solid
Date Received: 07/15/22 15:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	30096	07/21/22 01:35	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30200	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1	30106	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 17:58	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 21:37	CH	XEN MID

Client Sample ID: FS04A
Lab Sample ID: 880-16986-3
Date Collected: 07/14/22 09:07
Matrix: Solid
Date Received: 07/15/22 15:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	30096	07/21/22 01:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30200	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1	30106	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 18:20	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 21:46	CH	XEN MID

Client Sample ID: FS14A
Lab Sample ID: 880-16986-4
Date Collected: 07/14/22 08:53
Matrix: Solid
Date Received: 07/15/22 15:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	30096	07/21/22 02:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30200	07/21/22 08:55	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Client Sample ID: FS14A

Lab Sample ID: 880-16986-4
Matrix: Solid
Date Collected: 07/14/22 08:53
Date Received: 07/15/22 15:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	30106	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 18:41	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 21:55	CH	XEN MID

Client Sample ID: FS16A

Lab Sample ID: 880-16986-5
Matrix: Solid
Date Collected: 07/14/22 08:53
Date Received: 07/15/22 15:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			30163	07/20/22 15:07	MR	XEN MID
Total/NA	Analysis	8021B		1	30096	07/21/22 02:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	30200	07/21/22 08:55	SM	XEN MID
Total/NA	Analysis	8015 NM		1	30106	07/20/22 10:23	SM	XEN MID
Total/NA	Prep	8015NM Prep			29891	07/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	30026	07/19/22 19:04	SM	XEN MID
Soluble	Leach	DI Leach			29896	07/18/22 08:45	KS	XEN MID
Soluble	Analysis	300.0		1	29940	07/20/22 22:04	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: MCA 417 Flowline

Job ID: 880-16986-1
SDG: 32.80028, -103.756569

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-16986-1	FS01A	Solid	07/14/22 09:03	07/15/22 15:07	1
880-16986-2	FS03A	Solid	07/14/22 09:05	07/15/22 15:07	1
880-16986-3	FS04A	Solid	07/14/22 09:07	07/15/22 15:07	1.75
880-16986-4	FS14A	Solid	07/14/22 08:53	07/15/22 15:07	1
880-16986-5	FS16A	Solid	07/14/22 08:53	07/15/22 15:07	1

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: 16986

www.xenco.com Page 1 of 1

Project Manager	KALEI JENNINGS	Bill to. (if different)	KALEI JENNINGS
Company Name.	Ensolum, LLC	Company Name	
Address.	601 N Marienfeld Street, Suite 400	Address.	
City, State ZIP	Midland, TX 79701	City, State ZIP	
Phone:	817-683-2503 Email	KJENNINGS@ENSOLUM.COM	

Work Order Comments

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

Project Name:	MEA 417 FLOWLINE	Turn Around	
Project Number	03D2057014	☒ Routine ☐ Rush	
Project Location	32.8000°N, -103.7568°W	Due Date	5 DAY
Sampler's Name.	HADLEE GREEN	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	IR8
Cooler Custody Seals.	Yes No (N/A)	Correction Factor	+.20
Sample Custody Seals.	Yes No (N/A)	Temperature Reading:	.20
Total Containers.		Corrected Temperature:	4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH 8015	BTEX 8021	CHLORIDES 300
FS01A	SL	7-14-22	0903	1	C	1		X	X	X
FS03A			0905	1						
FS04A			0907	1.75						
FS14A			0950	1						
FS16A			0953	1						

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

4oz

880-16986 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr 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 Hadlee Green		7/15/22 15:07	2		
			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-16986-1
SDG Number: 32.80028, -103.756569

Login Number: 16986
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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	

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	NAPP2204841206
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

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)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2204841206
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☐ The source of the release has been stopped.
- ☐ The impacted area has been secured to protect human health and the environment.
- ☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have 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 _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Ramona Marcus Date: 2/18/2022

L48 Spill Volume Estimate Form

NAPP2204841206

Facility Name & Number:	MCA 417
Asset Area:	Maljamar
Release Discovery Date & Time:	2/4/2022 7:03
Release Type:	Oil Mixture
Provide any known details about the event:	flow line leak 3" flex pipe

Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?	See reference table below
Has it rained at least a half inch in the last 24 hours?	See reference table below

Convert irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	63.0	30.0	2.00	10.50%	56.070	5.887	20.00%	1.177	4.710
Rectangle B					0.000	0.000		0.000	0.000
Rectangle C					0.000	0.000		0.000	0.000
Rectangle D					0.000	0.000		0.000	0.000
Rectangle E					0.000	0.000		0.000	0.000
Rectangle F					0.000	0.000		0.000	0.000
Rectangle G					0.000	0.000		0.000	0.000
Rectangle H					0.000	0.000		0.000	0.000
Rectangle I					0.000	0.000		0.000	0.000
					0.000	0.000		0.000	0.000
					Total Volume Release:	5.887		1.177	4.710

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 82346

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 82346
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	2/18/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2204841206
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 (feet 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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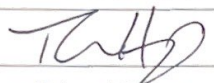
State of New Mexico
Oil Conservation Division

Incident ID	NAPP2204841206
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: Thomas Haigood Title: HSE Specialist

Signature:  Date: 08/02/2022

email: Thomas.Haigood@mavresources.com Telephone: 432-701-7802

OCD Only

Received by: Jocelyn Harimon Date: 08/02/2022

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State of New Mexico
Oil Conservation Division

Incident ID	NAPP2204841206
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: Thomas Haigood Title: HSE Specialist

Signature: Date: 08/02/2022

email: Thomas.Haigood@mavresources.com Telephone: 432-701-7802

OCD Only

Received by: Jocelyn Harimon Date:

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 08/08/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

APPENDIX E

NMOCD Notifications

Josh Adams

From: Kaushik, Rahul <Rahul.Kaushik@conocophillips.com>
Sent: Thursday, May 5, 2022 9:41 AM
To: Kalei Jennings
Subject: FW: [EXTERNAL] (Extension Request) MCA 417 (NAPP2204841206) 02-04-2022

[**EXTERNAL EMAIL**]

FYI,

Thank you,

Rahul Kaushik
Field Environmental Coordinator, Lower 48 | ConocoPhillips
5735, 7000 SW| Goldsmith | Texas 79714
M: 432-238-3781 | T: 432-827-5078
Rahul.Kaushik@conocophillips.com

From: Morgan, Crisha A <camorgan@blm.gov>
Sent: Thursday, May 5, 2022 10:04 AM
To: CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>; Esparza, Brittany <Brittany.Esparza@conocophillips.com>; emnrd-ocd-district1spills@state.nm.us
Cc: Kaushik, Rahul <Rahul.Kaushik@conocophillips.com>; Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Brittany Esparzs <besp22@gmail.com>
Subject: Re: [EXTERNAL] (Extension Request) MCA 417 (NAPP2204841206) 02-04-2022

All,

The remediation plan or closure report that is due for this incident was set for **05/05/2022**. Your request for an extension to **August 3,2022 (90 days)** is approved. Please keep the BLM updated if any problems prevent remediation for the site.

If you need anything further, please let me know.

Crisha A. Morgan |Certified - Environmental Protection Specialist | Program Officer|COR| Spills Coordinator| Orphaned Well POC Lead
Bureau of Land Management | Carlsbad Field Office
620 E. Greene Street Carlsbad, NM 88220
Cell 575-200-8648 | Office 575-234-5987 |camorgan@blm.gov

From: CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>
Sent: Wednesday, May 4, 2022 4:01 PM
To: Morgan, Crisha A <camorgan@blm.gov>
Subject: Fwd: [EXTERNAL] (Extension Request) MCA 417 (NAPP2204841206) 02-04-2022

Crisha A. Morgan |Certified - Environmental Protection Specialist | Program Officer|COR| Spills Coordinator| Orphaned Well POC Lead
Bureau of Land Management | Carlsbad Field Office
620 E. Greene Street Carlsbad, NM 88220
Cell 575-200-8648 | Office 575-234-5987 |camorgan@blm.gov

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From: Esparza, Brittany <Brittany.Esparza@conocophillips.com>
Sent: Wednesday, May 4, 2022 1:09:23 PM
To: CFO_Spill, BLM_NM <BLM_NM_CFO_Spill@blm.gov>; EMNRD-OCD-District1spills <emnrd-ocd-district1spills@state.nm.us>
Cc: Kaushik, Rahul <Rahul.Kaushik@conocophillips.com>; Fejervary Morena, Gustavo A <G.Fejervary@conocophillips.com>; Brittany Esparzs <besp22@gmail.com>
Subject: [EXTERNAL] (Extension Request) MCA 417 (NAPP2204841206) 02-04-2022

To Whom It May Concern,

COP is requesting an extension for the current deadline of May 5, 2022 for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at MCA 417 (Incident Number NAPP2204841206). The release was discovered on February 4, 2022 and remediation activities are expected to complete next week. In order to complete

remediation activities and allow time to submit a remediation work plan or closure report COP requests a 90-day extension of this deadline until August 3, 2022.

Thank you,

Brittany N. Esparza
Brittany N. Esparza | **Environmental Technician, Permian** | **ConocoPhillips**
O: 432-221-0398 | **C**: 432-349-1911 | 1CC-331 Midland, Texas

Josh Adams

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>
Sent: Friday, July 8, 2022 8:33 AM
To: Kalei Jennings
Cc: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Subject: FW: [EXTERNAL] Maverick- Sampling Notification (Week of 07/11/22-07/15/22)

[**EXTERNAL EMAIL**]

Kalei

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Friday, July 8, 2022 8:13 AM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Subject: Fw: [EXTERNAL] Maverick- Sampling Notification (Week of 07/11/22-07/15/22)

From: Kalei Jennings <kjennings@ensolum.com>
Sent: Thursday, July 7, 2022 2:19 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Subject: [EXTERNAL] Maverick- Sampling Notification (Week of 07/11/22-07/15/22)

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

All,

Maverick Natural Resources plans to complete final sampling activities at the following sites the week of July 11, 2022.

Monday:

Tuesday:

- EVGSAU Satellite 5 / NAPP2213957732

Wednesday:

Thursday:

- MCA 417 / NAPP2204841206

Friday:

Thank you,

Kalei Jennings
Senior Scientist
817-683-2503
Ensolum, LLC

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 130662

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 130662
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	8/8/2022