



May 20, 2024

New Mexico Oil Conservation Division

1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Closure Request
Desert Eagle Frac Line
Incident Number nAPP2402226359
Eddy County, New Mexico**

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Mewbourne Oil Company (Mewbourne), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Desert Eagle Frac Line (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of produced water at the Site. Based on excavation activities and analytical results from the soil sampling events, Mewbourne is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number nAPP2402226359.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit L, Section 6, Township 20 South, Range 29 East, in Eddy County, New Mexico (32.601899°, -104.1203552°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On January 9, 2024, mechanical failure to a hydraulic fracturing (frac) line resulted in the release of 189 barrels (bbls) of produced water onto the right of way (ROW) and into the adjacent pasture. The release covered approximately 12,950 square feet of the ROW and pasture area. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 110 bbls of produced water were recovered. Mewbourne reported the release to the New Mexico Oil Conservation Division (NMOCD) immediately and submitted an Initial C-141 Application (C-141) on January 22, 2024. The release was assigned Incident Number nAPP2402226359.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are discussed below and identified on Figure 1.

Depth to groundwater at the Site is estimated to be between 50 feet and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 323538104070601, located approximately 1,550 feet southeast of the Site. The groundwater well has a reported depth to groundwater of 48 feet bgs and a total depth of 80 feet bgs. The referenced well records are included in Appendix A.

Mewbourne Oil Company
Closure Request
Desert Eagle Frac Line



The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 10,395 feet northwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is underlain by unstable geology (high 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): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES AND DELINEATION SOIL SAMPLING ACTIVITIES

On January 17, 2024, Site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Seven preliminary assessment soil samples (SS01 through SS07) were collected within the release extent at a depth of 0.5 feet bgs, to assess the release. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation of the excavation activities is included in Appendix B.

On January 23, 2024, seven boreholes (SS01 through SS07) were advanced via hand auger within the release extent in the vicinity of the preliminary soil sample locations to assess the vertical extent of impacted soil. The boreholes were advanced to depths ranging from 1-foot to 2 feet bgs. Delineation soil samples were collected from each borehole at depths ranging from 1-foot to 2 feet bgs. Soil from the boreholes were field screened for VOCs and chloride. Field screening results and observations for the boreholes were logged on lithologic / soil sampling logs, which are included in Appendix C. The borehole and delineation soil sample locations are depicted on Figure 2.

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

Laboratory analytical results for preliminary soil samples SS01 and SS03 through SS07, collected within the release area at 0.5 feet bgs, indicated chloride concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil sample SS02, collected within the release area at 0.5 feet bgs, indicated all COC concentrations were compliant with the Closure Criteria. Laboratory analytical results for delineation soil samples SS01 through SS07, collected in the same locations as the preliminary soil samples SS01 through SS07 at 1-foot bgs, indicated all COC concentrations were compliant with the Closure Criteria and reclamation requirement, and successfully defined the vertical

extent of the release. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, excavation activities were warranted.

EXCAVATION SOIL SAMPLING ACTIVITIES

On January 25, 2024, Ensolum personnel were at the Site to oversee excavation activities. Impacted soil was excavated from the release area as indicated by visible staining and laboratory analytical results for the preliminary soil samples. Excavation activities were performed using a backhoe and transport vehicles. The excavation occurred within the ROW and in the pasture area. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to depths ranging from 0.5 feet to 2.25 feet bgs.

Following removal of the impacted soil, 5-point composite soil samples were collected at least every 200 square feet from the sidewalls and 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 FS001 through FS135 were collected from the floor of the excavation at depths ranging from 0.5 feet to 2.25 feet bgs. Composite soil samples SW01 through SW17 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 2.25 feet bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figures 3a and 3b.

The final excavation area measured approximately 26,831 square feet in areal extent. A total of approximately 1,300 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation was secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for excavation floor samples FS001 through FS135 and excavation sidewall samples SW01 through SW17, collected from the final excavation extent, indicated all COC concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix D.

RECLAMATION ACTIVITIES

Upon completion of excavation activities and receipt of final laboratory analytical results, the excavation was backfilled with locally procured topsoil. One representative 5-point composite sample (SS01) was collected from the backfill material. The backfill soil sample was handled and analyzed following the same procedures as described above. Laboratory analytical results for the backfill soil sample confirmed compliance with the NMOCD requirement for the reclaimed area to contain non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and TPH concentrations less than 100 mg/kg. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical report is included as Appendix D.

Following backfill activities, the disturbed area was contoured to match the surrounding topography and the surface was prepared for seeding. Photographs of the reclaimed excavation area are provided in Appendix B.

PROPOSED REVEGETATION ACTIVITIES

The disturbed ROW and pasture area will be seeded with the BLM sandy sites seed mix #2 at the rate specified in pounds of pure live seed (PLS) per acre.

Species/Cultivar	PLS/Acre
Plains lovegrass (<i>Eragrostis intermedia</i>)	0.5
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sideoats grama (<i>Bouteloua curtipendula</i>)	5.0
Plains bristlegrass (<i>Setaria macrostachya</i>)	2.0

The seed mix will be distributed with a broadcast speed spreader and harrowed in. Reclamation activities will be documented with photographs and timestamped with Global Positioning System (GPS) data in decimal degrees.

The Site will be monitored for vegetation growth to ensure that reclamation activities are successful. Focus for this phase will be to prevent erosion and site degradation, and to monitor for and treat invasive and noxious weed species.

- Erosion control of the newly reclaimed areas includes prompt revegetation and contouring of the surface to prevent concentrated surface water flow.
- Annual inspections will take place at the location to assess revegetation progress until vegetation is consistent with local natural vegetation density.
- If necessary, an additional application of the BLM seed mix will be applied.
- Noxious and invasive weeds will be identified and treated by licensed contracted herbicide applicator or mechanically removed.

A *Revegetation Report* will be submitted to the NMOCD once vegetation growth in the reclaimed pasture area has uniform vegetative cover that reflects a life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds, per NMAC 19.15.29.13 D.(3).

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the January 2024 release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were compliant with the Site Closure Criteria. Based on the soil sample analytical results, no further remediation was required. Mewbourne has backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions. The disturbed area will be re-seeded with an approved BLM seed mixture.

Excavation of impacted soil has mitigated impacts at this Site. Mewbourne believes these remedial actions are protective of human health, the environment, and groundwater. As such, Mewbourne respectfully requests closure for Incident Number nAPP2402226359.

Mewbourne Oil Company
Closure Request
Desert Eagle Frac Line



If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

A handwritten signature in black ink that reads "Morrissey".

Tacoma Morrissey
Associate Principal

A handwritten signature in black ink that reads "Daniel R. Moir".

Daniel R. Moir, PG
Senior Managing Geologist

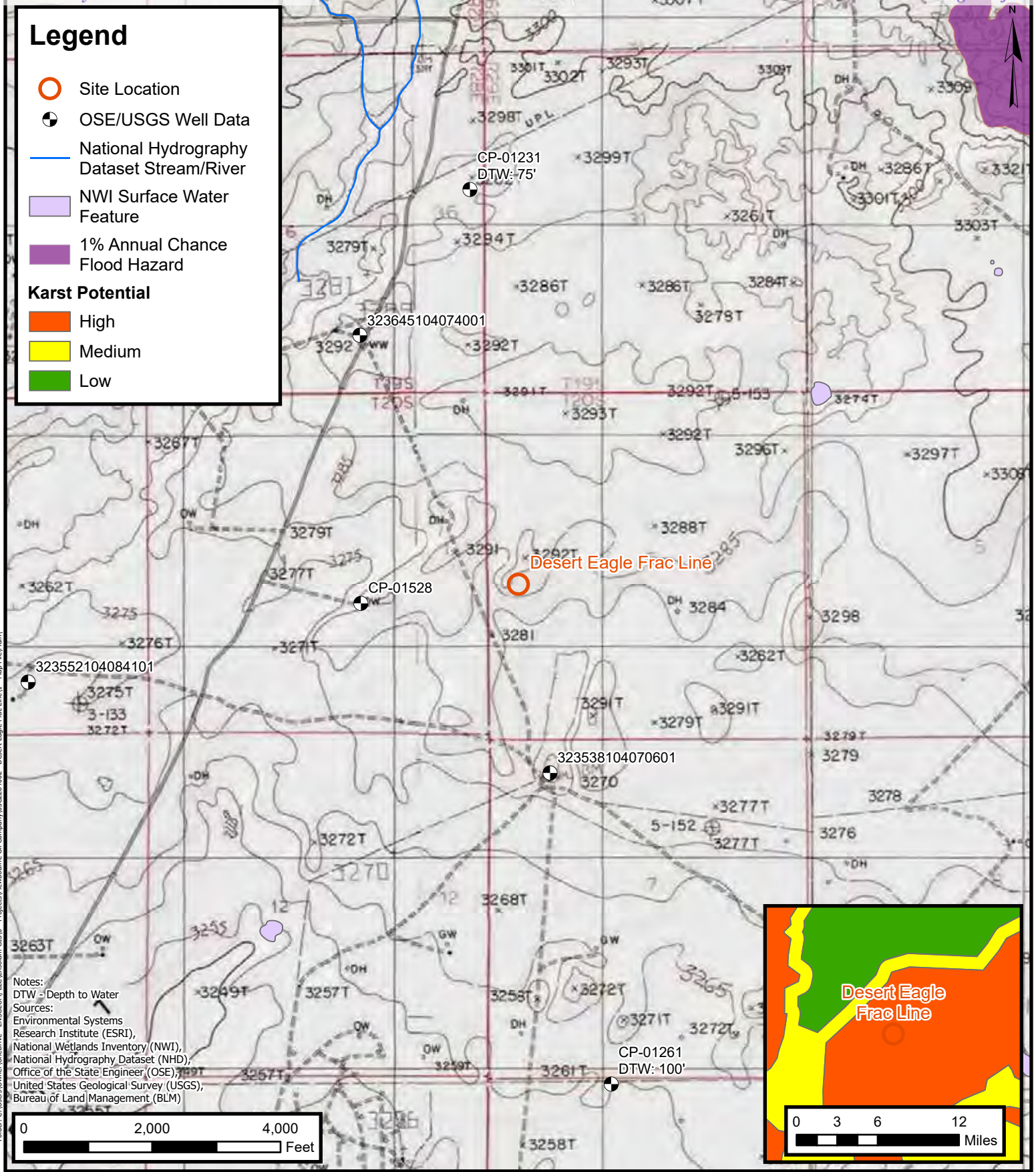
cc: Connor Walker, Mewbourne
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3a and 3b	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Table 2	Background Soil Sample Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation



FIGURES



Folder: C:\Users\Owner\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\Mewbourne Oil Company\032284002 - Desert Eagle Frac Line\1 - Map File\Main



Site Receptor Map
 Mewbourne Oil Company
 Desert Eagle Frac Line
 Incident Number: nAPP2402226359
 Unit L, S06, T 20S, R 29E
 Eddy County, New Mexico

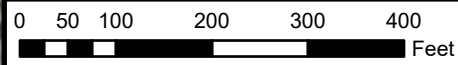
FIGURE
1

Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Release Extent



Notes:
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



Delineation Soil Sample Locations

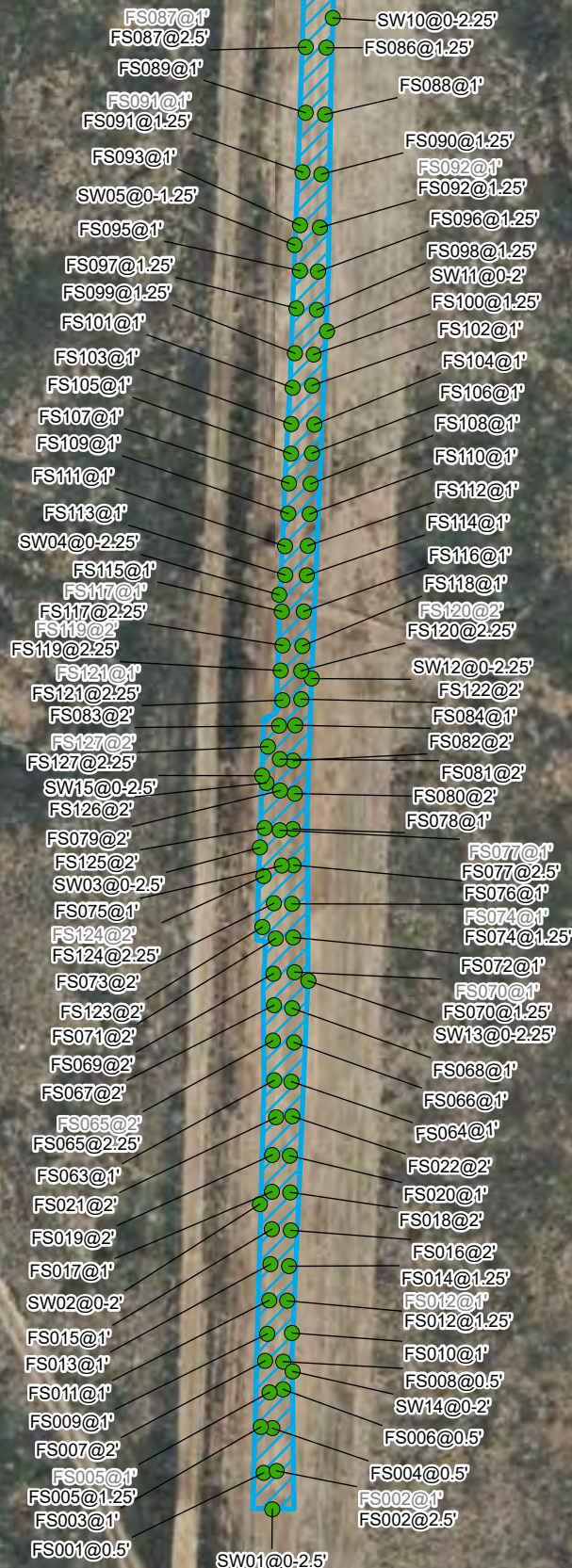
Mewbourne Oil Company
 Desert Eagle Frac Line
 Incident Number: nAPP2402226359
 Unit L, S06, T 20S, R 29E
 Eddy County, New Mexico

FIGURE

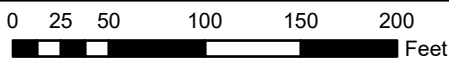
2

Legend

- Excavation Soil Sample in Compliance with Closure Criteria
- Excavation Extent



Notes:
 Sample ID @ Depth Below Ground/Surface.



Sources: Environmental Systems Research Institute (ESRI)



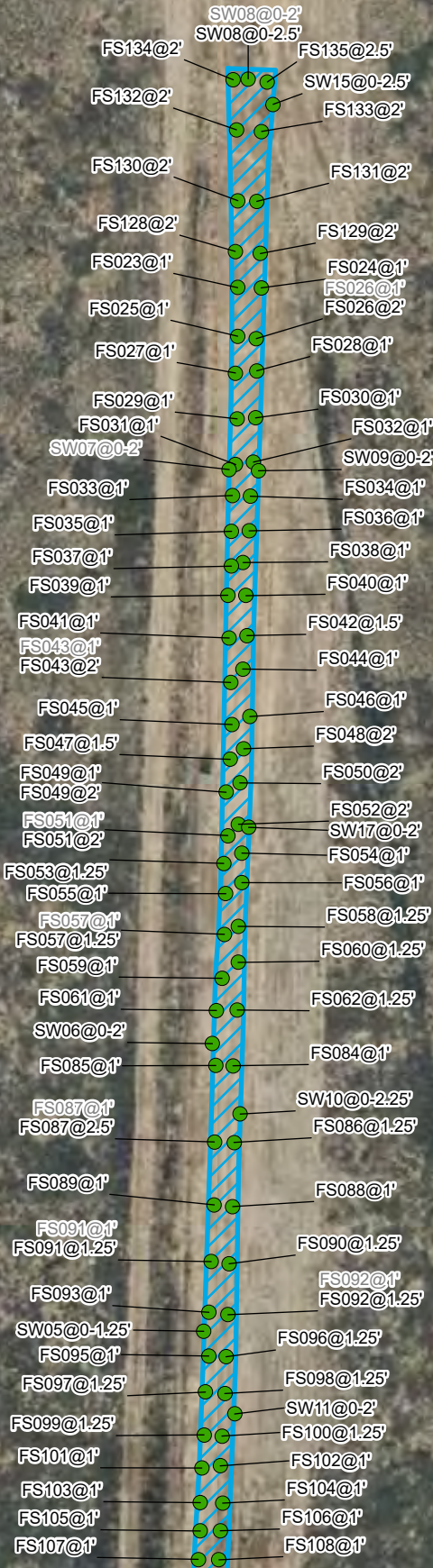
Excavation Soil Sample Locations

Mewbourne Oil Company
 Desert Eagle Frac Line
 Incident Number: nAPP2402226359
 Unit L, S06, T 20S, R 29E
 Eddy County, New Mexico

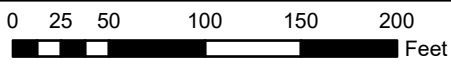
FIGURE
3a

Legend

- Excavation Soil Sample in Compliance with Closure Criteria
- Excavation Extent



Notes:
Sample ID @ Depth Below Ground/Surface.



Sources: Environmental Systems Research Institute (ESRI)



Excavation Soil Sample Locations

Mewbourne Oil Company
Desert Eagle Frac Line
Incident Number: nAPP2402226359
Unit L, S06, T 20S, R 29E
Eddy County, New Mexico

FIGURE
3b



TABLES



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Desert Eagle Frac Line (002)
Mewbourne Oil Company
Eddy 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Assessment Soil Samples										
SS01	01/17/2024	0.25'	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	3,130
SS01	01/23/2024	1'	<0.00202	<0.00403	<50.5	<50.5	<50.5	<50.5	<50.5	523
SS02	01/17/2024	0.25'	<0.00200	<0.00399	<50.5	<50.5	<50.5	<50.5	<50.5	485
SS02	01/23/2024	1'	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	514
SS02	01/23/2024	2'	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	95.9
SS03	01/17/2024	0.25'	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	8,700
SS03	01/23/2024	1'	<0.00198	<0.00397	<49.6	<49.6	<49.6	<49.6	<49.6	367
SS04	01/17/2024	0.25'	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	3,340
SS04	01/23/2024	1'	<0.00200	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	68.7
SS05	01/17/2024	0.25'	0.00708	0.249	<50.0	70.6	<50.0	70.6	70.6	7,620
SS05	01/23/2024	1'	<0.00200	<0.00400	<50.4	<50.4	<50.4	<50.4	<50.4	362
SS05	01/23/2024	2'	<0.00202	<0.00404	<50.5	<50.5	<50.5	<50.5	<50.5	82.9
SS06	01/17/2024	0.25'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	13,500
SS06	01/23/2024	1'	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	424
SS07	01/17/2024	0.25'	<0.00200	<0.00399	<49.8	186	<49.8	186	186	13,700
SS07	01/23/2024	1'	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	253
Confirmation Floor Soil Samples										
FS001	01/25/2024	0.5'	<0.00198	<0.00396	<50.3	<50.3	<50.3	<50.3	<50.3	201
FS002	01/30/2024	1'	<0.00202	<0.00404	<49.7	<49.7	<49.7	<49.7	<49.7	732
FS002	02/09/2024	2.5'	<0.00200	<0.00401	<49.8	80.1	<49.8	80.1	80.1	425
FS003	01/30/2024	1'	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	518
FS004	01/25/2024	0.5'	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	19.7
FS005	01/30/2024	1'	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	774
FS005	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS006	01/25/2024	0.5'	<0.00198	<0.00397	<49.7	<49.7	<49.7	<49.7	<49.7	25.0
FS007	02/01/2024	2'	<0.00200	<0.00401	<49.6	<49.6	<49.6	<49.6	<49.6	76.4
FS008	01/25/2024	0.5'	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	93.0
FS009	01/30/2024	1'	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	364
FS010	01/30/2024	1'	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	519



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Desert Eagle Frac Line (002)
Mewbourne Oil Company
Eddy 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS011	01/30/2024	1'	<0.00200	<0.00399	<50.5	<50.5	<50.5	<50.5	<50.5	177
FS012	01/30/2024	4'	<0.00200	<0.00399	<49.6	<49.6	<49.6	<49.6	<49.6	620
FS012	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS013	01/30/2024	1'	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	491
FS014	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS015	01/30/2024	1'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	180
FS016	02/01/2024	2'	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	95.7
FS017	01/30/2024	1'	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	495
FS018	02/01/2024	2'	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	98.9
FS019	02/01/2024	2'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	70.6
FS020	01/30/2024	1'	<0.00200	<0.00399	<50.3	<50.3	<50.3	<50.3	<50.3	278
FS021	02/01/2024	2'	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	111
FS022	02/01/2024	2'	<0.00200	<0.00401	<49.7	<49.7	<49.7	<49.7	<49.7	204
FS023	01/29/2024	1'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	209
FS024	01/29/2024	1'	<0.00198	<0.00396	<50.5	<50.5	<50.5	<50.5	<50.5	208
FS025	01/29/2024	1'	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	118
FS026	01/29/2024	4'	<0.00200	<0.00399	<50.2	<50.2	<50.2	<50.2	<50.2	959
FS026	02/22/2024	2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS027	01/29/2024	1'	<0.00202	<0.00404	<49.7	<49.7	<49.7	<49.7	<49.7	143
FS028	01/29/2024	1'	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	78.8
FS029	01/29/2024	1'	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	102
FS030	01/29/2024	1'	<0.00200	<0.00401	<50.1	<50.1	<50.1	<50.1	<50.1	197
FS031	01/29/2024	1'	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	160
FS032	01/29/2024	1'	<0.00201	<0.00402	<50.1	<50.1	<50.1	<50.1	<50.1	530
FS033	01/29/2024	1'	<0.00198	<0.00397	<49.7	<49.7	<49.7	<49.7	<49.7	144
FS034	01/29/2024	1'	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	120
FS035	01/29/2024	1'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	222
FS036	01/29/2024	1'	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	104
FS037	01/29/2024	1'	<0.00200	<0.00401	<50.3	<50.3	<50.3	<50.3	<50.3	325
FS038	01/29/2024	1'	<0.00202	<0.00404	<50.4	<50.4	<50.4	<50.4	<50.4	203



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Desert Eagle Frac Line (002)
Mewbourne Oil Company
Eddy 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS039	01/29/2024	1'	<0.00202	<0.00403	<50.5	<50.5	<50.5	<50.5	<50.5	178
FS040	01/29/2024	1'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	290
FS041	01/29/2024	1'	<0.00201	<0.00401	<50.3	<50.3	<50.3	<50.3	<50.3	218
FS042	01/31/2024	1.5'	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	110
FS043	01/29/2024	1'	<0.00200	<0.00401	<50.1	<50.1	<50.1	<50.1	<50.1	884
FS043	02/22/2024	2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS044	01/29/2024	1'	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	76.0
FS045	01/29/2024	1'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	67.6
FS046	01/29/2024	1'	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	526
FS047	01/31/2024	1.5'	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	313
FS048	02/22/2024	2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS049	02/01/2024	1'	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	606
FS049	02/22/2024	2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS050	02/22/2024	2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS051	01/29/2024	1'	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	709
FS051	02/22/2024	2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS052	02/22/2024	2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
FS053	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS054	01/29/2024	1'	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	146
FS055	01/29/2024	1'	<0.00198	<0.00397	<50.2	<50.2	<50.2	<50.2	<50.2	357
FS056	01/29/2024	1'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	516
FS057	01/29/2024	1'	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	746
FS057	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
FS058	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	288
FS059	01/31/2024	1'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	281
FS060	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	224
FS061	01/31/2024	1'	<0.00200	<0.00399	<49.6	<49.6	<49.6	<49.6	<49.6	65.5
FS062	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS063	01/30/2024	1'	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	375
FS064	01/30/2024	1'	<0.00201	<0.00402	<50.5	<50.5	<50.5	<50.5	<50.5	447



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Desert Eagle Frac Line (002)
Mewbourne Oil Company
Eddy 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS065	02/04/2024	2'	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	988
FS065	02/21/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
FS066	01/30/2024	1'	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	152
FS067	02/01/2024	2'	<0.00200	<0.00401	<49.6	<49.6	<49.6	<49.6	<49.6	89.6
FS068	01/30/2024	1'	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	464
FS069	02/01/2024	2'	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	<50.3	200
FS070	01/30/2024	4'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	704
FS070	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS071	02/01/2024	2'	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	239
FS072	01/30/2024	1'	<0.00200	<0.00399	<49.6	<49.6	<49.6	<49.6	<49.6	95.4
FS073	02/01/2024	2'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	56.8
FS074	01/30/2024	4'	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	625
FS074	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
FS075	01/30/2024	1'	<0.00201	<0.00402	<50.4	<50.4	<50.4	<50.4	<50.4	585
FS076	01/30/2024	1'	<0.00200	<0.00401	<50.2	<50.2	<50.2	<50.2	<50.2	510
FS077	01/30/2024	4'	<0.00198	<0.00397	<50.2	<50.2	<50.2	<50.2	<50.2	823
FS077	02/09/2024	2.5'	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	484
FS078	01/30/2024	1'	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	526
FS079	02/01/2024	2'	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	297
FS080	02/01/2024	2'	<0.00199	<0.00398	<49.6	<49.6	<49.6	<49.6	<49.6	70.9
FS081	02/01/2024	2'	<0.00199	0.00461	<50.0	<50.0	<50.0	<50.0	<50.0	182
FS082	02/01/2024	2'	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	130
FS083	02/01/2024	2'	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	163
FS084	01/30/2024	1'	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	372
FS085	01/31/2024	1'	<0.00201	<0.00402	<49.6	<49.6	<49.6	<49.6	<49.6	240
FS086	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	320
FS087	01/31/2024	4'	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	682
FS087	02/09/2024	2.5'	<0.00199	<0.00398	<50.1	<50.1	<50.1	<50.1	<50.1	262
FS088	01/31/2024	1'	<0.00199	<0.00398	<50.2	<50.2	<50.2	<50.2	<50.2	156
FS089	01/31/2024	1'	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	93.9



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Desert Eagle Frac Line (002)
Mewbourne Oil Company
Eddy 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS090	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
FS091	01/31/2024	1'	<0.00200	<0.00399	<50.5	<50.5	<50.5	<50.5	<50.5	634
FS091	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS092	01/31/2024	1'	<0.00204	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	749
FS092	02/21/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS093	01/31/2024	1'	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	62.1
FS094	01/31/2024	1'	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	235
FS095	01/31/2024	1'	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	<50.3	132
FS096	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
FS097	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	<16.0
FS098	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	16.0
FS099	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	208
FS100	02/21/2024	1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
FS101	01/31/2024	1'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	134
FS102	01/31/2024	1'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	101
FS103	01/31/2024	1'	<0.00201	<0.00402	<50.1	<50.1	<50.1	<50.1	<50.1	93.7
FS104	01/31/2024	1'	<0.00200	<0.00401	<50.3	<50.3	<50.3	<50.3	<50.3	75.7
FS105	02/01/2024	1'	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	106
FS106	02/01/2024	1'	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	150
FS107	02/01/2024	1'	<0.00201	<0.00402	<50.1	<50.1	<50.1	<50.1	<50.1	162
FS108	02/01/2024	1'	<0.00200	<0.00401	<50.3	<50.3	<50.3	<50.3	<50.3	81.3
FS109	02/01/2024	1'	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	<50.3	163
FS110	02/01/2024	1'	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	114
FS111	02/01/2024	1'	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	306
FS112	02/01/2024	1'	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	75.4
FS113	02/01/2024	1'	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	517
FS114	02/01/2024	1'	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	213
FS115	02/01/2024	1'	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	104
FS116	02/01/2024	1'	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	328
FS117	02/04/2024	1'	<0.00204	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	994



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Desert Eagle Frac Line (002)
Mewbourne Oil Company
Eddy 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS117	02/21/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS118	02/01/2024	1'	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	61.9
FS119	02/09/2024	2'	<0.00199	<0.00398	<49.9	138	<49.9	138	138	605
FS119	02/22/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
FS120	02/09/2024	2'	<0.00198	0.00511	<50.1	<50.1	<50.1	<50.1	<50.1	890
FS120	02/22/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
FS124	02/04/2024	4'	<0.00198	<0.00396	<50.5	<50.5	<50.5	<50.5	<50.5	774
FS121	02/21/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS122	02/09/2024	2'	<0.00202	<0.00404	<50.2	<50.2	<50.2	<50.2	<50.2	319
FS123	02/01/2024	2'	<0.00200	<0.00401	<50.2	<50.2	<50.2	<50.2	<50.2	72.7
FS124	02/04/2024	2'	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	982
FS124	02/21/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
FS125	02/01/2024	2'	<0.00199	<0.00398	<50.3	<50.3	<50.3	<50.3	<50.3	307
FS126	02/01/2024	2'	<0.00200	<0.00399	<50.3	<50.3	<50.3	<50.3	<50.3	192
FS127	02/04/2024	2'	<0.00201	<0.00402	<50.1	<50.1	<50.1	<50.1	<50.1	970
FS127	02/21/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS128	02/09/2024	2'	<0.00201	<0.00402	<50.5	<50.5	<50.5	<50.5	<50.5	165
FS129	02/09/2024	2'	<0.00202	<0.00403	<50.3	<50.3	<50.3	<50.3	<50.3	364
FS130	02/09/2024	2'	<0.00198	<0.00397	<50.2	<50.2	<50.2	<50.2	<50.2	502
FS131	02/09/2024	2'	<0.00200	<0.00399	<50.5	<50.5	<50.5	<50.5	<50.5	818
FS131	02/22/2024	2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS132	02/09/2024	2'	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	275
FS133	02/09/2024	2'	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	123
FS134	02/09/2024	2'	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	505
FS135	02/09/2024	2.5'	<0.00200	<0.00400	<50.4	<50.4	<50.4	<50.4	<50.4	228
Confirmation Sidewall Soil Samples										
SW01	02/22/2024	0-2.5'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SW02	02/22/2024	0-2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	240
SW03	02/22/2024	0-2.5'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	160
SW04	02/22/2024	0-2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192



**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Desert Eagle Frac Line (002)
Mewbourne Oil Company
Eddy 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 I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
SW05	02/22/2024	0-1.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	256
SW06	02/09/2024	0-2'	<0.00200	<0.00400	<50.5	<50.5	<50.5	<50.5	<50.5	529
SW07	02/09/2024	0-2'	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	1,480
SW08	02/09/2024	0-2'	<0.00204	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	878
SW08	02/22/2024	0-2.5'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	32.0
SW09	02/22/2024	0-2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	64.0
SW10	02/22/2024	0-2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
SW11	02/09/2024	0-2'	<0.00202	<0.00403	<49.6	<49.6	<49.6	<49.6	<49.6	500
SW12	02/22/2024	0-2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	128
SW13	02/22/2024	0-2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
SW14	02/22/2024	0-2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	192
SW15	02/22/2024	0-2.5'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
SW16	02/22/2024	0-2.25'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	112
SW17	02/22/2024	0-2'	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	96.0
Backfill Soil Sample										
SS01	04/29/2024	0.5'	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	190

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities



APPENDIX A

Referenced Well Records



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Geographic Area:

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for the Nation

Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 323538104070601

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 323538104070601 20S.29E.07.11234

Available data for this site

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°35'37.7", Longitude 104°07'07.8" NAD83

Land-surface elevation 3,259 feet above NAVD88

The depth of the well is 80 feet below land surface.

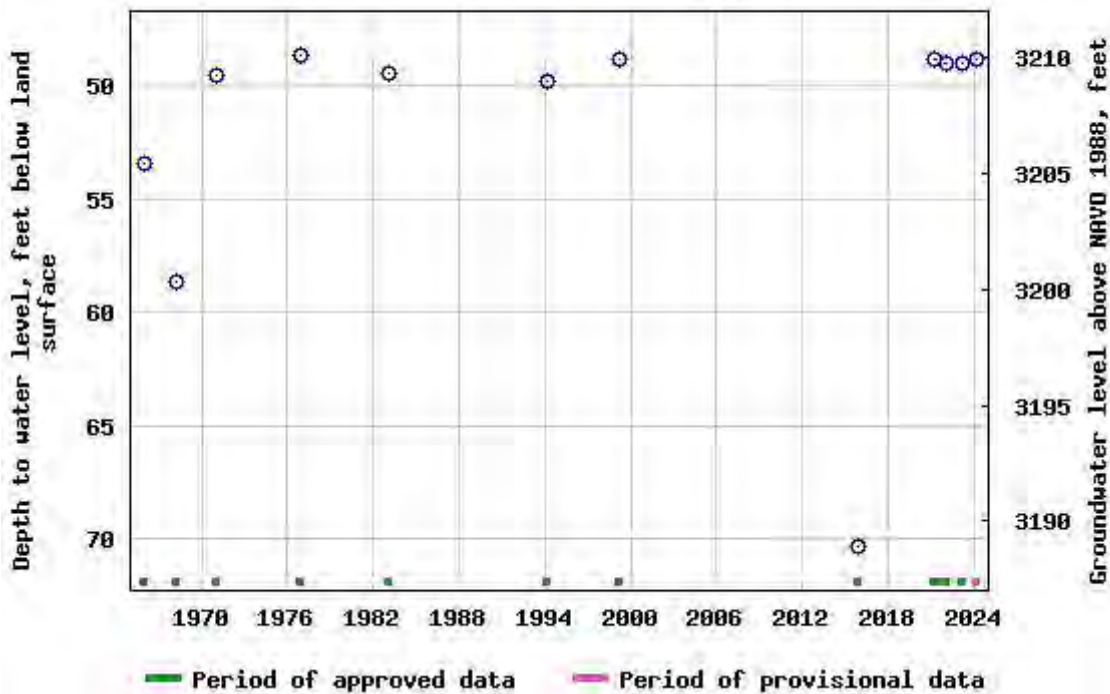
This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

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

USGS 323538104070601 20S,29E,07,11234



Breaks in the plot represent a gap of at least one year between field measurements. [Download a presentation-quality graph](#)

- [Questions or Comments](#)
- [Automated retrievals](#)
- [Help](#)
- [Data Tips](#)
- [Explanation of terms](#)
- [Subscribe for system changes](#)
- [News](#)

[Accessibility](#) [FOIA](#) [Privacy](#) [Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2024-04-02 13:09:28 EDT

0.61 0.54 nadww01



APPENDIX B
Photographic Log



Photographic Log
Mewbourne Oil Company
Desert Eagle Frac Line
nAPP2402226359



Photograph: 1 Date: 1/17/2024
Description: Site Evaluation
View: Southeast

Photograph: 2 Date: 1/17/2024
Description: Site Evaluation
View: South



Photograph: 3 Date: 1/17/2024
Description: Site Evaluation
View: South

Photograph: 4 Date: 1/17/2024
Description: Site Evaluation
View: North



Photographic Log
Mewbourne Oil Company
Desert Eagle Frac Line
nAPP2402226359



Photograph: 5 Date: 1/22/2024
Description: Line Spotting with Hydrovac
View: Northeast

Photograph: 6 Date: 1/23/2024
Description: Borehole Sampling with Hand Auger
View: East



Photograph: 7 Date: 1/30/2024
Description: Excavation
View: North

Photograph: 8 Date: 1/30/2024
Description: Excavation
View: North



Photographic Log
Mewbourne Oil Company
Desert Eagle Frac Line
nAPP2402226359



Photograph: 9 Date: 2/22/2024
Description: Excavation
View: South

Photograph: 10 Date: 2/22/2024
Description: Excavation
View: South



Photograph: 11 Date: 2/22/2024
Description: Excavation
View: South

Photograph: 12 Date: 2/22/2024
Description: Excavation
View: South



Photographic Log
Mewbourne Oil Company
Desert Eagle Frac Line
nAPP2402226359



Photograph: 13
Description: Excavation
View: South
Date: 2/22/2024

Photograph: 14
Description: Excavation
View: North
Date: 2/22/2024



Photograph: 15
Description: Excavation
View: South
Date: 2/22/2024

Photograph: 16
Description: Excavation
View: Southeast
Date: 2/22/2024



Photographic Log
Mewbourne Oil Company
Desert Eagle Frac Line
nAPP2402226359



Photograph: 17 Date: 3/25/2024
Description: Backfill
View: South



Photograph: 18 Date: 3/25/2024
Description: Backfill
View: South



Photograph: 19 Date: 3/25/2024
Description: Backfill
View: South



Photograph: 20 Date: 3/25/2024
Description: Backfill
View: Southeast



Photographic Log
Mewbourne Oil Company
Desert Eagle Frac Line
nAPP2402226359



Photograph: 17
Description: Backfill
View: South
Date: 3/25/2024



Photograph: 18
Description: Backfill
View: South
Date: 4/29/2024



Photograph: 19
Description: Backfill
View: North
Date: 4/29/2024






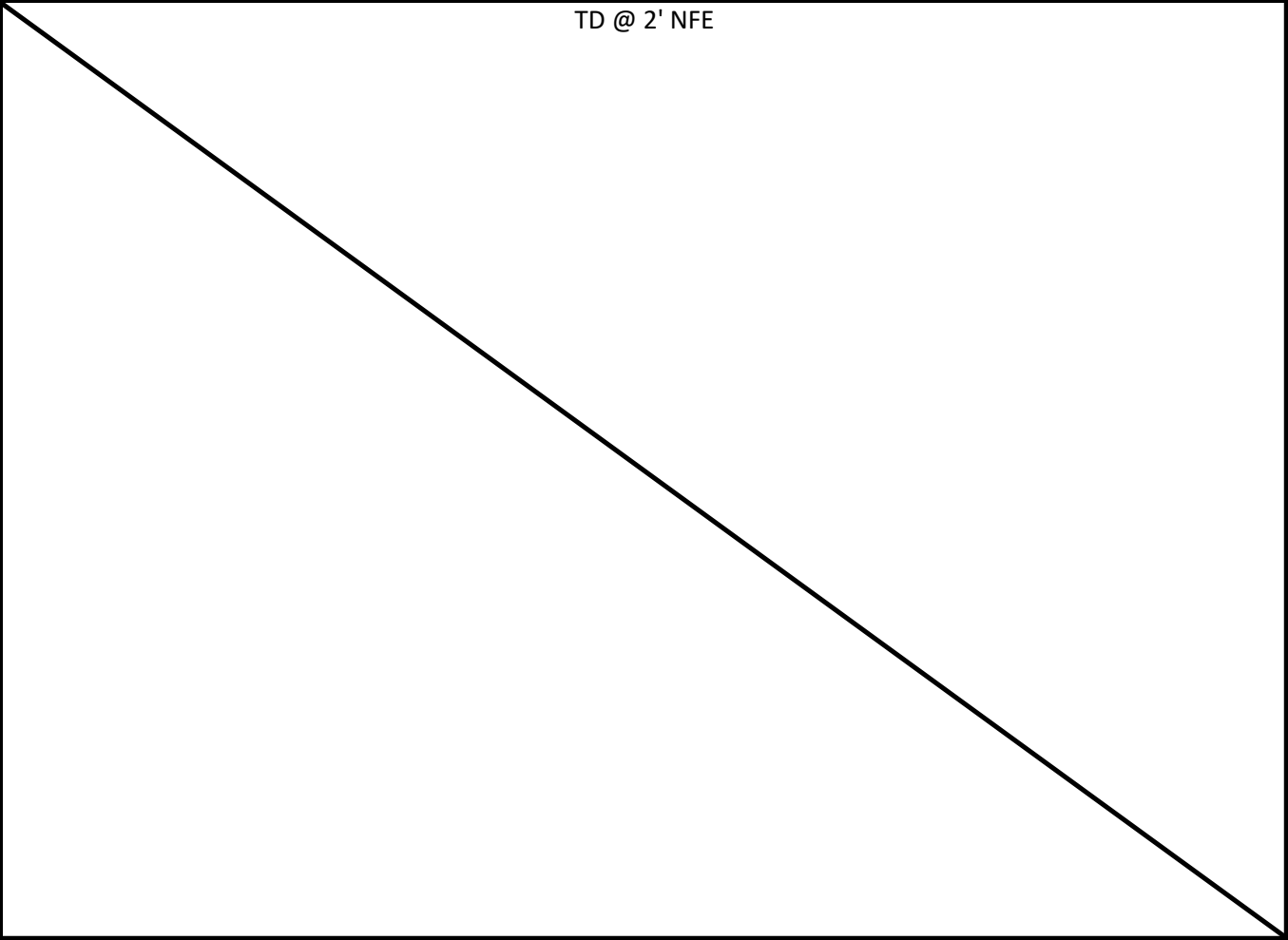
Photograph: 20
Description: Backfill
View: North
Date: 4/29/2024


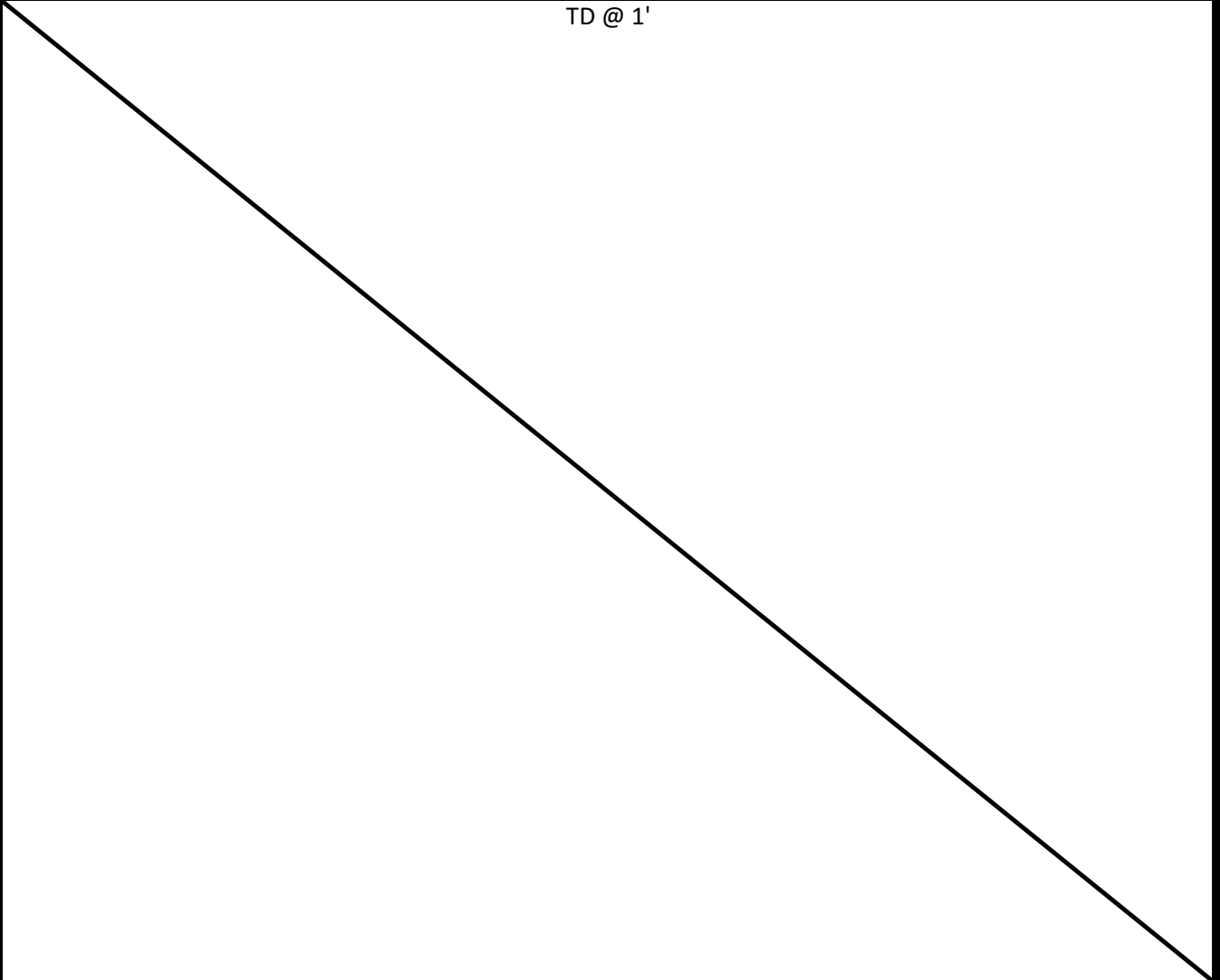



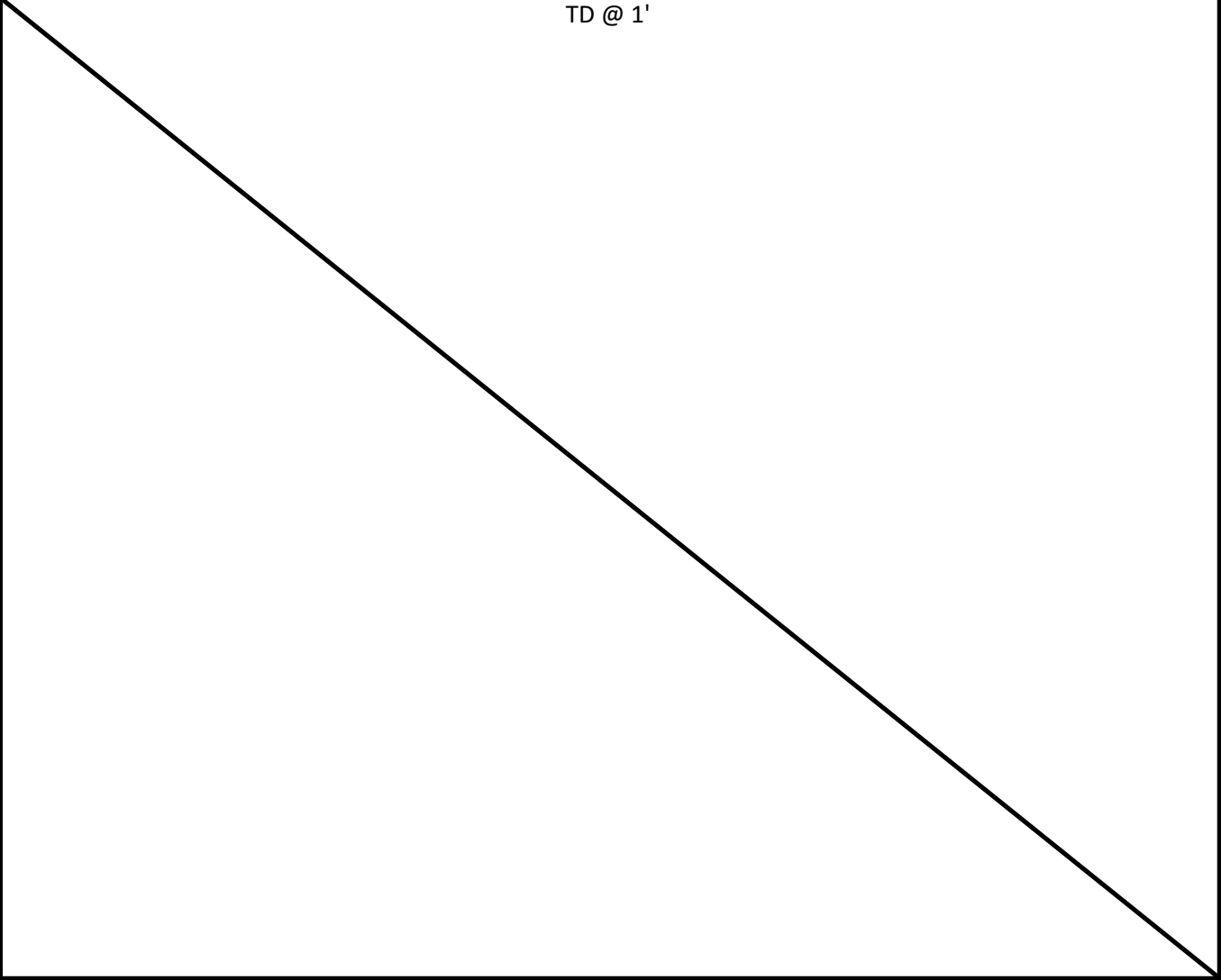
APPENDIX C


Lithologic Soil Sampling Logs


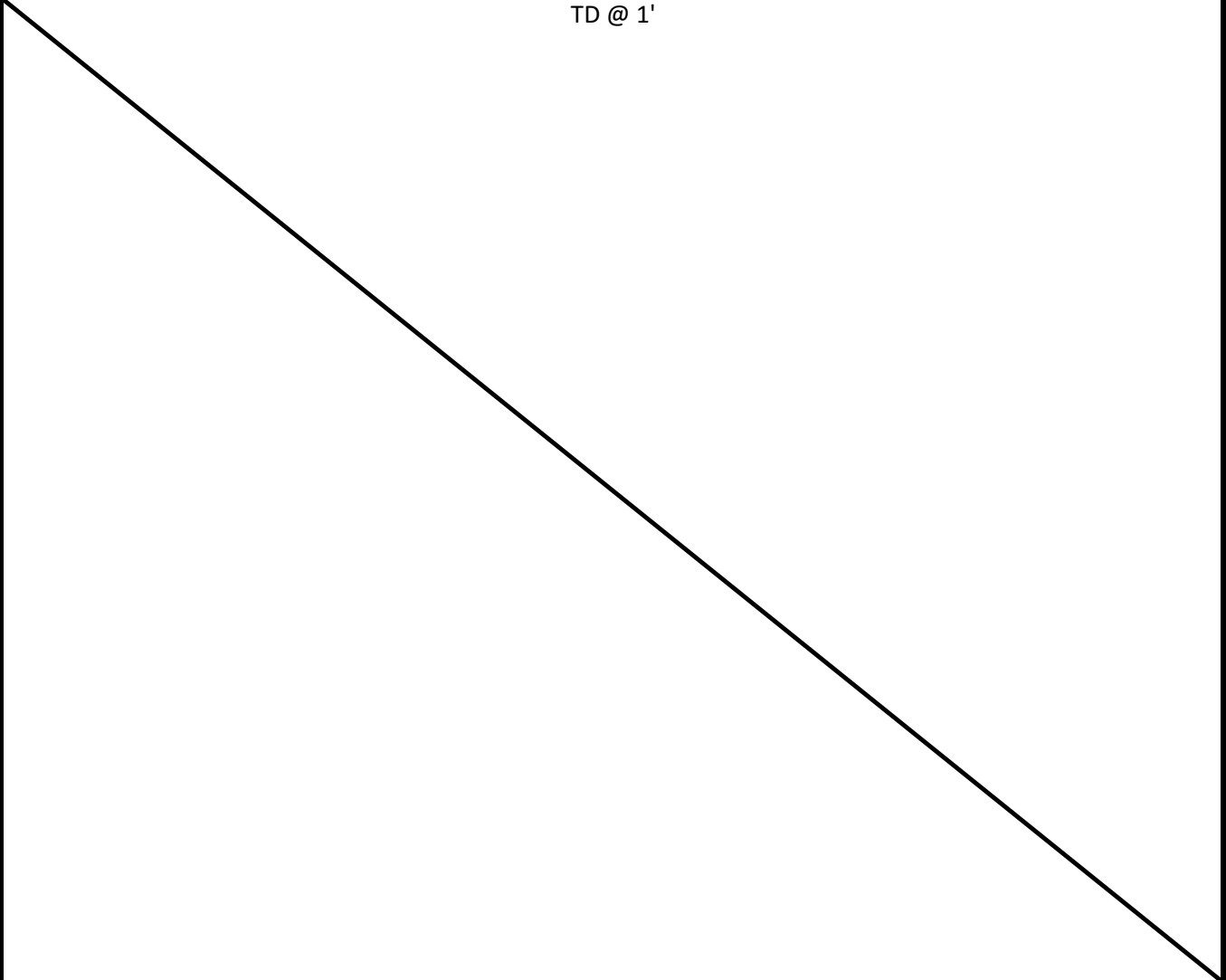
					Sample Name: SS01		Date: 1/23/2024	
					Site Name: Desert Eagle Frac Line			
					Incident Number: nAPP2402226359			
					Job Number: 03C2284002			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: MS		Method: Hand Auger	
Coordinates: 32.597961, -104.120482					Hole Diameter: 6"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	1,870	0.0	Y	SS01	0.25	0	SP	(0-1'), SAND, white, poorly graded, no stain, no odor
D	431	0.1	N	SS01	1	1	SP	
						 Total Depth @ 1 Foot bgs		
TD 1' <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em; opacity: 0.2;"> \ </div>								


					Sample Name: SS02		Date: 1/23/2024	
					Site Name: Desert Eagle Frac Line			
					Incident Number: nAPP2402226359			
					Job Number: 03C2284002			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: MS		Method: Hand Auger	
Coordinates: 32.598209, -104.120466					Hole Diameter: 6"		Total Depth: 2'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	2,296	0.0	Y	SS02	0.25	0	SP	(0-2'), SAND, bandy dark brown, poorly graded,
D	704	0.0	N	SS02	1	1	SP	
D	132	0.0	N	SS02	2	2	SP	
						Total Depth @ 2 feet bgs		
TD @ 2' NFE								
								

					Sample Name: SS03		Date: 1/23/2024	
					Site Name: Desert Eagle Frac Line			
					Incident Number: nAPP2402226359			
					Job Number: 03C2284002			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: MS		Method: Hand Auger	
Coordinates: 32.599045, -104.120439					Hole Diameter: 6"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	>3,511	17.4	Y	SS03	0.25	0	SP	(0-1'), SAND, reddish grey, poorly graded,
D	193.6	0.0	N	SS03	1	1	SP	
						Total Depth @ 1 feet bgs TD @ 1'		
								

					Sample Name: SS04		Date: 1/23/2024	
					Site Name: Desert Eagle Frac Line			
					Incident Number: nAPP2402226359			
					Job Number: 03C2284002			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: MS		Method: Hand Auger	
Coordinates: 32.59773, -104.120385					Hole Diameter: 6"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	2,296	0.0	Y	SS04	0.25	0	SW-SM	(0-1'), SAND with silt, white, fine, poorly graded
D	<132	0.0	N	SS04	1	1	SW-SM	
						Total Depth @ 1 feet bgs TD @ 1'		
								

					Sample Name: SS05		Date: 1/23/2024	
					Site Name: Desert Eagle Frac Line			
					Incident Number: nAPP2402226359			
					Job Number: 03C2284002			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: MS		Method: Hand Auger	
Coordinates: 32.600510, -104.120350					Hole Diameter: 6"		Total Depth: 2'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	>3,511	200.2	Y	SS05	0.25	0	SW-SM	(0-2'), SAND with silt, white, fine, poorly graded
D	704	0.0	N	SS05	1	1	SW-SM	
D	<132	0.0	N	SS05	2	2	SW-SM	
						Total Depth @ 2 feet bgs TD @ 2'		

					Sample Name: SS06		Date: 1/23/2024	
					Site Name: Desert Eagle Frac Line			
					Incident Number: nAPP2402226359			
					Job Number: 03C2284002			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: MS		Method: Hand Auger	
Coordinates: 32.601251, -104.120313					Hole Diameter: 6"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	>3,511	0.3	N	SS06	0.25	0	SW-SM	(0-1'), SAND with silt, white, fine, poorly graded
D	387.2	0.0	N	SS06	1	1	SW-SM	
						Total Depth @ 1 feet bgs TD @ 1'		
								

					Sample Name: SS07		Date: 1/23/2024	
					Site Name: Desert Eagle Frac Line			
					Incident Number: nAPP2402226359			
					Job Number: 03C2284002			
LITHOLOGIC / SOIL SAMPLING LOG					Logged By: MS		Method: Hand Auger	
Coordinates: 32.601804, -104.120310					Hole Diameter: 6"		Total Depth: 1'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	>3,511	13.1	Y	SS07	0.25	0	SW-SM	(0-1'), SAND with silt, white, fine, poorly graded
D	264.0	0.0	N	SS07	1	1		
						Total Depth @ 1 feet bgs TD @ 1'		



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 2/21/2024 10:03:23 AM

JOB DESCRIPTION

Desert Eagle Frac Line
 03C2284002

JOB NUMBER

890-6152-1

Eurofins Carlsbad
 1089 N Canal St.
 Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/21/2024 10:03:23 AM

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

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

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Laboratory Job ID: 890-6152-1
SDG: 03C2284002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	22
QC Sample Results	24
QC Association Summary	29
Lab Chronicle	33
Certification Summary	39
Method Summary	40
Sample Summary	41
Chain of Custody	42
Receipt Checklists	44

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line

Job ID: 890-6152-1

Job ID: 890-6152-1

Eurofins Carlsbad

Job Narrative 890-6152-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/9/2024 2:53 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 5.4°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS 119 (890-6152-1), FS 120 (890-6152-2), FS 122 (890-6152-3), FS 128 (890-6152-4), FS 129 (890-6152-5), FS 130 (890-6152-6), FS 131 (890-6152-7), FS 132 (890-6152-8), FS 133 (890-6152-9), FS 134 (890-6152-10), FS 002 (890-6152-11), FS 077 (890-6152-12), FS 087 (890-6152-13), FS 135 (890-6152-14), SW 06 (890-6152-15), SW 07 (890-6152-16), SW 08 (890-6152-17) and SW 11 (890-6152-18).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS 120 (890-6152-2) and SW 06 (890-6152-15). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS 129 (890-6152-5) and FS 087 (890-6152-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73090 and analytical batch 880-73402 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS 119 (890-6152-1), FS 120 (890-6152-2), FS 122 (890-6152-3), FS 128 (890-6152-4), FS 129 (890-6152-5), FS 130 (890-6152-6), FS 131 (890-6152-7), FS 002 (890-6152-11), SW 06 (890-6152-15), SW 08 (890-6152-17), (890-6152-A-1-E MS) and (890-6152-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73090 and analytical batch 880-73402 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73042 and analytical batch 880-73102 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D - Soluble: The continuing calibration blank (CCB) for analytical batch 880-73102 contained Chloride above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line

Job ID: 890-6152-1

Job ID: 890-6152-1 (Continued)

Eurofins Carlsbad

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

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 119

Lab Sample ID: 890-6152-1

Date Collected: 02/09/24 09:28

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 00:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 00:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 00:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:02	02/21/24 00:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 00:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:02	02/21/24 00:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	02/15/24 15:02	02/21/24 00:10	1
1,4-Difluorobenzene (Surr)	102		70 - 130	02/15/24 15:02	02/21/24 00:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/24 00:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	138		49.9	mg/Kg			02/17/24 20:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	49.9	mg/Kg		02/13/24 16:42	02/17/24 20:25	1
Diesel Range Organics (Over C10-C28)	138	F1 F2	49.9	mg/Kg		02/13/24 16:42	02/17/24 20:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/13/24 16:42	02/17/24 20:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130	02/13/24 16:42	02/17/24 20:25	1
o-Terphenyl	69	S1-	70 - 130	02/13/24 16:42	02/17/24 20:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	605	F1	5.05	mg/Kg			02/13/24 17:11	1

Client Sample ID: FS 120

Lab Sample ID: 890-6152-2

Date Collected: 02/09/24 09:24

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 00:30	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 00:30	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 00:30	1
m-Xylene & p-Xylene	0.00511		0.00396	mg/Kg		02/15/24 15:02	02/21/24 00:30	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 00:30	1
Xylenes, Total	0.00511		0.00396	mg/Kg		02/15/24 15:02	02/21/24 00:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	321	S1+	70 - 130	02/15/24 15:02	02/21/24 00:30	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 120

Lab Sample ID: 890-6152-2

Date Collected: 02/09/24 09:24

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	111		70 - 130	02/15/24 15:02	02/21/24 00:30	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00511		0.00396	mg/Kg			02/21/24 00:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/17/24 21:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		02/13/24 16:42	02/17/24 21:31	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		02/13/24 16:42	02/17/24 21:31	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		02/13/24 16:42	02/17/24 21:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	62	S1-	70 - 130	02/13/24 16:42	02/17/24 21:31	1
o-Terphenyl	55	S1-	70 - 130	02/13/24 16:42	02/17/24 21:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	890		4.98	mg/Kg			02/13/24 17:32	1

Client Sample ID: FS 122

Lab Sample ID: 890-6152-3

Date Collected: 02/09/24 09:26

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 00:51	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 00:51	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 00:51	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/15/24 15:02	02/21/24 00:51	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 00:51	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/15/24 15:02	02/21/24 00:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	02/15/24 15:02	02/21/24 00:51	1
1,4-Difluorobenzene (Surr)	102		70 - 130	02/15/24 15:02	02/21/24 00:51	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/21/24 00:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/17/24 21:53	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 122

Lab Sample ID: 890-6152-3

Date Collected: 02/09/24 09:26

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/13/24 16:42	02/17/24 21:53	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/13/24 16:42	02/17/24 21:53	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/13/24 16:42	02/17/24 21:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	26	S1-	70 - 130			02/13/24 16:42	02/17/24 21:53	1
o-Terphenyl	16	S1-	70 - 130			02/13/24 16:42	02/17/24 21:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	319		4.95	mg/Kg			02/13/24 17:39	1

Client Sample ID: FS 128

Lab Sample ID: 890-6152-4

Date Collected: 02/09/24 09:49

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:02	02/21/24 01:11	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:02	02/21/24 01:11	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:02	02/21/24 01:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/15/24 15:02	02/21/24 01:11	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:02	02/21/24 01:11	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/15/24 15:02	02/21/24 01:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130			02/15/24 15:02	02/21/24 01:11	1
1,4-Difluorobenzene (Surr)	111		70 - 130			02/15/24 15:02	02/21/24 01:11	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/21/24 01:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/17/24 22:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/17/24 22:15	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/17/24 22:15	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/17/24 22:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	38	S1-	70 - 130			02/13/24 16:42	02/17/24 22:15	1
o-Terphenyl	31	S1-	70 - 130			02/13/24 16:42	02/17/24 22:15	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: FS 128

Lab Sample ID: 890-6152-4

Date Collected: 02/09/24 09:49

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	165		5.01	mg/Kg			02/13/24 17:46	1

Client Sample ID: FS 129

Lab Sample ID: 890-6152-5

Date Collected: 02/09/24 09:50

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 01:32	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 01:32	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 01:32	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/15/24 15:02	02/21/24 01:32	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 01:32	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/15/24 15:02	02/21/24 01:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130			02/15/24 15:02	02/21/24 01:32	1
1,4-Difluorobenzene (Surr)	99		70 - 130			02/15/24 15:02	02/21/24 01:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/21/24 01:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/17/24 22:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/13/24 16:42	02/17/24 22:37	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/13/24 16:42	02/17/24 22:37	1
Oll Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/13/24 16:42	02/17/24 22:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	26	S1-	70 - 130			02/13/24 16:42	02/17/24 22:37	1
o-Terphenyl	15	S1-	70 - 130			02/13/24 16:42	02/17/24 22:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	364		4.96	mg/Kg			02/13/24 17:53	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 130

Lab Sample ID: 890-6152-6

Date Collected: 02/09/24 09:52

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 01:52	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 01:52	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 01:52	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/15/24 15:02	02/21/24 01:52	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 01:52	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/15/24 15:02	02/21/24 01:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	02/15/24 15:02	02/21/24 01:52	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/15/24 15:02	02/21/24 01:52	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/21/24 01:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/17/24 22:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/13/24 16:42	02/17/24 22:59	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/13/24 16:42	02/17/24 22:59	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/13/24 16:42	02/17/24 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130	02/13/24 16:42	02/17/24 22:59	1
o-Terphenyl	64	S1-	70 - 130	02/13/24 16:42	02/17/24 22:59	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	502		4.99	mg/Kg			02/13/24 18:13	1

Client Sample ID: FS 131

Lab Sample ID: 890-6152-7

Date Collected: 02/09/24 09:53

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 02:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 02:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 02:13	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/15/24 15:02	02/21/24 02:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 02:13	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/15/24 15:02	02/21/24 02:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	02/15/24 15:02	02/21/24 02:13	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 131

Lab Sample ID: 890-6152-7

Date Collected: 02/09/24 09:53

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	99		70 - 130	02/15/24 15:02	02/21/24 02:13	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/21/24 02:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/17/24 23:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/17/24 23:21	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/17/24 23:21	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/17/24 23:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	66	S1-	70 - 130	02/13/24 16:42	02/17/24 23:21	1
o-Terphenyl	67	S1-	70 - 130	02/13/24 16:42	02/17/24 23:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	818		5.00	mg/Kg			02/13/24 18:20	1

Client Sample ID: FS 132

Lab Sample ID: 890-6152-8

Date Collected: 02/09/24 09:54

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 02:33	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 02:33	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 02:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:02	02/21/24 02:33	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 02:33	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:02	02/21/24 02:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	02/15/24 15:02	02/21/24 02:33	1
1,4-Difluorobenzene (Surr)	114		70 - 130	02/15/24 15:02	02/21/24 02:33	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/24 02:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/17/24 23:43	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 132

Lab Sample ID: 890-6152-8

Date Collected: 02/09/24 09:54

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/17/24 23:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/17/24 23:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/17/24 23:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 130			02/13/24 16:42	02/17/24 23:43	1
o-Terphenyl	72		70 - 130			02/13/24 16:42	02/17/24 23:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	275		5.04	mg/Kg			02/13/24 18:27	1

Client Sample ID: FS 133

Lab Sample ID: 890-6152-9

Date Collected: 02/09/24 10:54

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 02:54	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 02:54	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 02:54	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/15/24 15:02	02/21/24 02:54	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:02	02/21/24 02:54	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/15/24 15:02	02/21/24 02:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130			02/15/24 15:02	02/21/24 02:54	1
1,4-Difluorobenzene (Surr)	104		70 - 130			02/15/24 15:02	02/21/24 02:54	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/21/24 02:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/18/24 00:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/18/24 00:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/18/24 00:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/18/24 00:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			02/13/24 16:42	02/18/24 00:04	1
o-Terphenyl	84		70 - 130			02/13/24 16:42	02/18/24 00:04	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: FS 133

Lab Sample ID: 890-6152-9

Date Collected: 02/09/24 10:54

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	123		5.02	mg/Kg			02/13/24 18:34	1

Client Sample ID: FS 134

Lab Sample ID: 890-6152-10

Date Collected: 02/09/24 09:51

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 03:14	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 03:14	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 03:14	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/15/24 15:02	02/21/24 03:14	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 03:14	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/15/24 15:02	02/21/24 03:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			02/15/24 15:02	02/21/24 03:14	1
1,4-Difluorobenzene (Surr)	106		70 - 130			02/15/24 15:02	02/21/24 03:14	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/21/24 03:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/18/24 00:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/13/24 16:42	02/18/24 00:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/13/24 16:42	02/18/24 00:26	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/13/24 16:42	02/18/24 00:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130			02/13/24 16:42	02/18/24 00:26	1
o-Terphenyl	81		70 - 130			02/13/24 16:42	02/18/24 00:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	505		5.03	mg/Kg			02/13/24 18:40	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: FS 002

Lab Sample ID: 890-6152-11

Date Collected: 02/09/24 11:27

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 05:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 05:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 05:05	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/15/24 15:02	02/21/24 05:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 05:05	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/15/24 15:02	02/21/24 05:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	02/15/24 15:02	02/21/24 05:05	1
1,4-Difluorobenzene (Surr)	100		70 - 130	02/15/24 15:02	02/21/24 05:05	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/21/24 05:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	80.1		49.8	mg/Kg			02/18/24 01:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/13/24 16:42	02/18/24 01:10	1
Diesel Range Organics (Over C10-C28)	80.1		49.8	mg/Kg		02/13/24 16:42	02/18/24 01:10	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/13/24 16:42	02/18/24 01:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130	02/13/24 16:42	02/18/24 01:10	1
o-Terphenyl	72		70 - 130	02/13/24 16:42	02/18/24 01:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	425		4.99	mg/Kg			02/13/24 18:47	1

Client Sample ID: FS 077

Lab Sample ID: 890-6152-12

Date Collected: 02/09/24 11:22

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 05:25	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 05:25	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 05:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:02	02/21/24 05:25	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 05:25	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:02	02/21/24 05:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	02/15/24 15:02	02/21/24 05:25	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 077

Lab Sample ID: 890-6152-12

Date Collected: 02/09/24 11:22

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	112		70 - 130	02/15/24 15:02	02/21/24 05:25	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/24 05:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/18/24 01:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/13/24 16:42	02/18/24 01:31	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/13/24 16:42	02/18/24 01:31	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/13/24 16:42	02/18/24 01:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	02/13/24 16:42	02/18/24 01:31	1
o-Terphenyl	90		70 - 130	02/13/24 16:42	02/18/24 01:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	484		5.02	mg/Kg			02/13/24 19:08	1

Client Sample ID: FS 087

Lab Sample ID: 890-6152-13

Date Collected: 02/09/24 11:50

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 05:46	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 05:46	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 05:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:02	02/21/24 05:46	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:02	02/21/24 05:46	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:02	02/21/24 05:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	02/15/24 15:02	02/21/24 05:46	1
1,4-Difluorobenzene (Surr)	129		70 - 130	02/15/24 15:02	02/21/24 05:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/24 05:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/18/24 01:53	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: FS 087

Lab Sample ID: 890-6152-13

Date Collected: 02/09/24 11:50

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		02/13/24 16:42	02/18/24 01:53	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		02/13/24 16:42	02/18/24 01:53	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		02/13/24 16:42	02/18/24 01:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			02/13/24 16:42	02/18/24 01:53	1
o-Terphenyl	102		70 - 130			02/13/24 16:42	02/18/24 01:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	262		5.05	mg/Kg			02/13/24 19:15	1

Client Sample ID: FS 135

Lab Sample ID: 890-6152-14

Date Collected: 02/09/24 10:53

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2.5"

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 06:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 06:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 06:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/15/24 15:02	02/21/24 06:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 06:06	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/15/24 15:02	02/21/24 06:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			02/15/24 15:02	02/21/24 06:06	1
1,4-Difluorobenzene (Surr)	112		70 - 130			02/15/24 15:02	02/21/24 06:06	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/21/24 06:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/18/24 02:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/13/24 16:42	02/18/24 02:15	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/13/24 16:42	02/18/24 02:15	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/13/24 16:42	02/18/24 02:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 130			02/13/24 16:42	02/18/24 02:15	1
o-Terphenyl	76		70 - 130			02/13/24 16:42	02/18/24 02:15	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 135

Lab Sample ID: 890-6152-14

Date Collected: 02/09/24 10:53

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 2.5"

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	228		5.00	mg/Kg			02/13/24 19:35	1

Client Sample ID: SW 06

Lab Sample ID: 890-6152-15

Date Collected: 02/09/24 13:05

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 0 - 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 06:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 06:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 06:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/15/24 15:02	02/21/24 06:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/21/24 06:27	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/15/24 15:02	02/21/24 06:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	250	S1+	70 - 130			02/15/24 15:02	02/21/24 06:27	1
1,4-Difluorobenzene (Surr)	103		70 - 130			02/15/24 15:02	02/21/24 06:27	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/21/24 06:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/18/24 02:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/18/24 02:37	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/18/24 02:37	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/13/24 16:42	02/18/24 02:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130			02/13/24 16:42	02/18/24 02:37	1
o-Terphenyl	69	S1-	70 - 130			02/13/24 16:42	02/18/24 02:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	529		4.98	mg/Kg			02/13/24 19:42	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: SW 07

Lab Sample ID: 890-6152-16

Date Collected: 02/09/24 13:11

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 0 - 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 06:47	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 06:47	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 06:47	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/15/24 15:02	02/21/24 06:47	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 06:47	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/15/24 15:02	02/21/24 06:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	02/15/24 15:02	02/21/24 06:47	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/15/24 15:02	02/21/24 06:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/21/24 06:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/18/24 02:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/18/24 02:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/18/24 02:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/18/24 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	02/13/24 16:42	02/18/24 02:59	1
o-Terphenyl	76		70 - 130	02/13/24 16:42	02/18/24 02:59	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1480		5.04	mg/Kg			02/13/24 19:49	1

Client Sample ID: SW 08

Lab Sample ID: 890-6152-17

Date Collected: 02/09/24 13:14

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 0 - 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:02	02/21/24 07:08	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:02	02/21/24 07:08	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:02	02/21/24 07:08	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/15/24 15:02	02/21/24 07:08	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:02	02/21/24 07:08	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/15/24 15:02	02/21/24 07:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	02/15/24 15:02	02/21/24 07:08	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: SW 08

Lab Sample ID: 890-6152-17

Date Collected: 02/09/24 13:14

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 0 - 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	02/15/24 15:02	02/21/24 07:08	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/21/24 07:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/18/24 03:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/13/24 16:42	02/18/24 03:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/13/24 16:42	02/18/24 03:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/13/24 16:42	02/18/24 03:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130	02/13/24 16:42	02/18/24 03:21	1
o-Terphenyl	66	S1-	70 - 130	02/13/24 16:42	02/18/24 03:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	878		5.03	mg/Kg			02/13/24 19:56	1

Client Sample ID: SW 11

Lab Sample ID: 890-6152-18

Date Collected: 02/09/24 13:02

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 0 - 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 07:28	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 07:28	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 07:28	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/15/24 15:02	02/21/24 07:28	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:02	02/21/24 07:28	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/15/24 15:02	02/21/24 07:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	02/15/24 15:02	02/21/24 07:28	1
1,4-Difluorobenzene (Surr)	106		70 - 130	02/15/24 15:02	02/21/24 07:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/21/24 07:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/18/24 03:43	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: SW 11

Lab Sample ID: 890-6152-18

Date Collected: 02/09/24 13:02

Matrix: Solid

Date Received: 02/09/24 14:53

Sample Depth: 0 - 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/13/24 16:42	02/18/24 03:43	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/13/24 16:42	02/18/24 03:43	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/13/24 16:42	02/18/24 03:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 130	02/13/24 16:42	02/18/24 03:43	1
o-Terphenyl	75		70 - 130	02/13/24 16:42	02/18/24 03:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	500		4.97	mg/Kg			02/13/24 20:03	1

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-6152-1	FS 119	118	102
890-6152-1 MS	FS 119	120	96
890-6152-1 MSD	FS 119	119	102
890-6152-2	FS 120	321 S1+	111
890-6152-3	FS 122	120	102
890-6152-4	FS 128	127	111
890-6152-5	FS 129	133 S1+	99
890-6152-6	FS 130	121	103
890-6152-7	FS 131	107	99
890-6152-8	FS 132	120	114
890-6152-9	FS 133	126	104
890-6152-10	FS 134	111	106
890-6152-11	FS 002	99	100
890-6152-12	FS 077	110	112
890-6152-13	FS 087	131 S1+	129
890-6152-14	FS 135	103	112
890-6152-15	SW 06	250 S1+	103
890-6152-16	SW 07	117	109
890-6152-17	SW 08	116	103
890-6152-18	SW 11	129	106
LCS 880-73276/1-A	Lab Control Sample	116	95
LCSD 880-73276/2-A	Lab Control Sample Dup	113	94
MB 880-73276/5-A	Method Blank	129	109
MB 880-73632/5-A	Method Blank	125	107

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-6152-1	FS 119	72	69 S1-
890-6152-1 MS	FS 119	65 S1-	58 S1-
890-6152-1 MSD	FS 119	41 S1-	35 S1-
890-6152-2	FS 120	62 S1-	55 S1-
890-6152-3	FS 122	26 S1-	16 S1-
890-6152-4	FS 128	38 S1-	31 S1-
890-6152-5	FS 129	26 S1-	15 S1-
890-6152-6	FS 130	68 S1-	64 S1-
890-6152-7	FS 131	66 S1-	67 S1-
890-6152-8	FS 132	71	72
890-6152-9	FS 133	82	84
890-6152-10	FS 134	79	81
890-6152-11	FS 002	68 S1-	72
890-6152-12	FS 077	87	90
890-6152-13	FS 087	97	102

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

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)
890-6152-14	FS 135	76	76
890-6152-15	SW 06	72	69 S1-
890-6152-16	SW 07	77	76
890-6152-17	SW 08	67 S1-	66 S1-
890-6152-18	SW 11	71	75
LCS 880-73090/2-A	Lab Control Sample	101	101
LCSD 880-73090/3-A	Lab Control Sample Dup	94	95
MB 880-73090/1-A	Method Blank	204 S1+	228 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73276/5-A
 Matrix: Solid
 Analysis Batch: 73611

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 73276

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/20/24 23:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/20/24 23:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/20/24 23:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/15/24 15:02	02/20/24 23:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:02	02/20/24 23:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/15/24 15:02	02/20/24 23:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	02/15/24 15:02	02/20/24 23:41	1
1,4-Difluorobenzene (Surr)	109		70 - 130	02/15/24 15:02	02/20/24 23:41	1

Lab Sample ID: LCS 880-73276/1-A
 Matrix: Solid
 Analysis Batch: 73611

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 73276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1223		mg/Kg		122	70 - 130
Toluene	0.100	0.1106		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1165		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	0.200	0.1998		mg/Kg		100	70 - 130
o-Xylene	0.100	0.1074		mg/Kg		107	70 - 130

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

Lab Sample ID: LCSD 880-73276/2-A
 Matrix: Solid
 Analysis Batch: 73611

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 73276

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1152		mg/Kg		115	70 - 130	6	35
Toluene	0.100	0.1025		mg/Kg		103	70 - 130	8	35
Ethylbenzene	0.100	0.1270		mg/Kg		127	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2241		mg/Kg		112	70 - 130	11	35
o-Xylene	0.100	0.1020		mg/Kg		102	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-6152-1 MS
 Matrix: Solid
 Analysis Batch: 73611

Client Sample ID: FS 119
 Prep Type: Total/NA
 Prep Batch: 73276

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.100	0.09058		mg/Kg		90	70 - 130
Toluene	<0.00199	U	0.100	0.08260		mg/Kg		82	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

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

Lab Sample ID: 890-6152-1 MS
Matrix: Solid
Analysis Batch: 73611

Client Sample ID: FS 119
Prep Type: Total/NA
Prep Batch: 73276

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00199	U	0.100	0.09596		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1788		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.100	0.08285		mg/Kg		83	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-6152-1 MSD
Matrix: Solid
Analysis Batch: 73611

Client Sample ID: FS 119
Prep Type: Total/NA
Prep Batch: 73276

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00199	U	0.101	0.09016		mg/Kg		90	70 - 130	0	35
Toluene	<0.00199	U	0.101	0.07465		mg/Kg		74	70 - 130	10	35
Ethylbenzene	<0.00199	U	0.101	0.08388		mg/Kg		83	70 - 130	13	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1617		mg/Kg		80	70 - 130	10	35
o-Xylene	<0.00199	U	0.101	0.07758		mg/Kg		77	70 - 130	7	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-73632/5-A
Matrix: Solid
Analysis Batch: 73611

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73632

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		02/20/24 10:08	02/20/24 11:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/20/24 10:08	02/20/24 11:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/20/24 10:08	02/20/24 11:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/20/24 10:08	02/20/24 11:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/20/24 10:08	02/20/24 11:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/20/24 10:08	02/20/24 11:59	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	125		70 - 130	02/20/24 10:08	02/20/24 11:59	1
1,4-Difluorobenzene (Surr)	107		70 - 130	02/20/24 10:08	02/20/24 11:59	1

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

Lab Sample ID: MB 880-73090/1-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73090

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/17/24 19:18	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

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

Lab Sample ID: MB 880-73090/1-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73090

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/17/24 19:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/13/24 16:42	02/17/24 19:18	1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac		
	%Recovery	Qualifier						
1-Chlorooctane	204	S1+	70 - 130	02/13/24 16:42	02/17/24 19:18	1		
o-Terphenyl	228	S1+	70 - 130	02/13/24 16:42	02/17/24 19:18	1		

Lab Sample ID: LCS 880-73090/2-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	1048	mg/Kg		105	70 - 130	
Surrogate	LCS	LCS	Limits				
	%Recovery	Qualifier					
1-Chlorooctane	101		70 - 130				
o-Terphenyl	101		70 - 130				

Lab Sample ID: LCSD 880-73090/3-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73090

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	879.6	mg/Kg		88	70 - 130	17	20	
Surrogate	LCSD	LCSD	Limits						
	%Recovery	Qualifier							
1-Chlorooctane	94		70 - 130						
o-Terphenyl	95		70 - 130						

Lab Sample ID: 890-6152-1 MS
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: FS 119
Prep Type: Total/NA
Prep Batch: 73090

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	998	947.1	mg/Kg		91	70 - 130	
Diesel Range Organics (Over C10-C28)	138	F1 F2	998	590.7	F1	mg/Kg	45	70 - 130	
Surrogate	MS	MS	Limits						
	%Recovery	Qualifier							
1-Chlorooctane	65	S1-	70 - 130						
o-Terphenyl	58	S1-	70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

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

Lab Sample ID: 890-6152-1 MSD
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: FS 119
Prep Type: Total/NA
Prep Batch: 73090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	998	697.7	F1 F2	mg/Kg		66	70 - 130	30	20
Diesel Range Organics (Over C10-C28)	138	F1 F2	998	353.7	F1 F2	mg/Kg		22	70 - 130	50	20
Surrogate	%Recovery	MSD Qualifier		MSD						Limits	
1-Chlorooctane	41	S1-								70 - 130	
o-Terphenyl	35	S1-								70 - 130	

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73042/1-A
Matrix: Solid
Analysis Batch: 73102

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/13/24 16:51	1

Lab Sample ID: LCS 880-73042/2-A
Matrix: Solid
Analysis Batch: 73102

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	261.5		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-73042/3-A
Matrix: Solid
Analysis Batch: 73102

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	260.5		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-6152-1 MS
Matrix: Solid
Analysis Batch: 73102

Client Sample ID: FS 119
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	605	F1	253	837.9		mg/Kg		92	90 - 110

Lab Sample ID: 890-6152-1 MSD
Matrix: Solid
Analysis Batch: 73102

Client Sample ID: FS 119
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	605	F1	253	813.3	F1	mg/Kg		83	90 - 110	3	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-6152-11 MS
Matrix: Solid
Analysis Batch: 73102

Client Sample ID: FS 002
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	425		250	677.6		mg/Kg		101	90 - 110

Lab Sample ID: 890-6152-11 MSD
Matrix: Solid
Analysis Batch: 73102

Client Sample ID: FS 002
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	425		250	667.7		mg/Kg		97	90 - 110	1	20

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

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

GC VOA

Prep Batch: 73276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-1	FS 119	Total/NA	Solid	5035	
890-6152-2	FS 120	Total/NA	Solid	5035	
890-6152-3	FS 122	Total/NA	Solid	5035	
890-6152-4	FS 128	Total/NA	Solid	5035	
890-6152-5	FS 129	Total/NA	Solid	5035	
890-6152-6	FS 130	Total/NA	Solid	5035	
890-6152-7	FS 131	Total/NA	Solid	5035	
890-6152-8	FS 132	Total/NA	Solid	5035	
890-6152-9	FS 133	Total/NA	Solid	5035	
890-6152-10	FS 134	Total/NA	Solid	5035	
890-6152-11	FS 002	Total/NA	Solid	5035	
890-6152-12	FS 077	Total/NA	Solid	5035	
890-6152-13	FS 087	Total/NA	Solid	5035	
890-6152-14	FS 135	Total/NA	Solid	5035	
890-6152-15	SW 06	Total/NA	Solid	5035	
890-6152-16	SW 07	Total/NA	Solid	5035	
890-6152-17	SW 08	Total/NA	Solid	5035	
890-6152-18	SW 11	Total/NA	Solid	5035	
MB 880-73276/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73276/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73276/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6152-1 MS	FS 119	Total/NA	Solid	5035	
890-6152-1 MSD	FS 119	Total/NA	Solid	5035	

Analysis Batch: 73611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-1	FS 119	Total/NA	Solid	8021B	73276
890-6152-2	FS 120	Total/NA	Solid	8021B	73276
890-6152-3	FS 122	Total/NA	Solid	8021B	73276
890-6152-4	FS 128	Total/NA	Solid	8021B	73276
890-6152-5	FS 129	Total/NA	Solid	8021B	73276
890-6152-6	FS 130	Total/NA	Solid	8021B	73276
890-6152-7	FS 131	Total/NA	Solid	8021B	73276
890-6152-8	FS 132	Total/NA	Solid	8021B	73276
890-6152-9	FS 133	Total/NA	Solid	8021B	73276
890-6152-10	FS 134	Total/NA	Solid	8021B	73276
890-6152-11	FS 002	Total/NA	Solid	8021B	73276
890-6152-12	FS 077	Total/NA	Solid	8021B	73276
890-6152-13	FS 087	Total/NA	Solid	8021B	73276
890-6152-14	FS 135	Total/NA	Solid	8021B	73276
890-6152-15	SW 06	Total/NA	Solid	8021B	73276
890-6152-16	SW 07	Total/NA	Solid	8021B	73276
890-6152-17	SW 08	Total/NA	Solid	8021B	73276
890-6152-18	SW 11	Total/NA	Solid	8021B	73276
MB 880-73276/5-A	Method Blank	Total/NA	Solid	8021B	73276
MB 880-73632/5-A	Method Blank	Total/NA	Solid	8021B	73632
LCS 880-73276/1-A	Lab Control Sample	Total/NA	Solid	8021B	73276
LCSD 880-73276/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73276
890-6152-1 MS	FS 119	Total/NA	Solid	8021B	73276
890-6152-1 MSD	FS 119	Total/NA	Solid	8021B	73276

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

GC VOA

Prep Batch: 73632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73632/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-1	FS 119	Total/NA	Solid	Total BTEX	
890-6152-2	FS 120	Total/NA	Solid	Total BTEX	
890-6152-3	FS 122	Total/NA	Solid	Total BTEX	
890-6152-4	FS 128	Total/NA	Solid	Total BTEX	
890-6152-5	FS 129	Total/NA	Solid	Total BTEX	
890-6152-6	FS 130	Total/NA	Solid	Total BTEX	
890-6152-7	FS 131	Total/NA	Solid	Total BTEX	
890-6152-8	FS 132	Total/NA	Solid	Total BTEX	
890-6152-9	FS 133	Total/NA	Solid	Total BTEX	
890-6152-10	FS 134	Total/NA	Solid	Total BTEX	
890-6152-11	FS 002	Total/NA	Solid	Total BTEX	
890-6152-12	FS 077	Total/NA	Solid	Total BTEX	
890-6152-13	FS 087	Total/NA	Solid	Total BTEX	
890-6152-14	FS 135	Total/NA	Solid	Total BTEX	
890-6152-15	SW 06	Total/NA	Solid	Total BTEX	
890-6152-16	SW 07	Total/NA	Solid	Total BTEX	
890-6152-17	SW 08	Total/NA	Solid	Total BTEX	
890-6152-18	SW 11	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-1	FS 119	Total/NA	Solid	8015NM Prep	
890-6152-2	FS 120	Total/NA	Solid	8015NM Prep	
890-6152-3	FS 122	Total/NA	Solid	8015NM Prep	
890-6152-4	FS 128	Total/NA	Solid	8015NM Prep	
890-6152-5	FS 129	Total/NA	Solid	8015NM Prep	
890-6152-6	FS 130	Total/NA	Solid	8015NM Prep	
890-6152-7	FS 131	Total/NA	Solid	8015NM Prep	
890-6152-8	FS 132	Total/NA	Solid	8015NM Prep	
890-6152-9	FS 133	Total/NA	Solid	8015NM Prep	
890-6152-10	FS 134	Total/NA	Solid	8015NM Prep	
890-6152-11	FS 002	Total/NA	Solid	8015NM Prep	
890-6152-12	FS 077	Total/NA	Solid	8015NM Prep	
890-6152-13	FS 087	Total/NA	Solid	8015NM Prep	
890-6152-14	FS 135	Total/NA	Solid	8015NM Prep	
890-6152-15	SW 06	Total/NA	Solid	8015NM Prep	
890-6152-16	SW 07	Total/NA	Solid	8015NM Prep	
890-6152-17	SW 08	Total/NA	Solid	8015NM Prep	
890-6152-18	SW 11	Total/NA	Solid	8015NM Prep	
MB 880-73090/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73090/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6152-1 MS	FS 119	Total/NA	Solid	8015NM Prep	
890-6152-1 MSD	FS 119	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

GC Semi VOA

Analysis Batch: 73402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-1	FS 119	Total/NA	Solid	8015B NM	73090
890-6152-2	FS 120	Total/NA	Solid	8015B NM	73090
890-6152-3	FS 122	Total/NA	Solid	8015B NM	73090
890-6152-4	FS 128	Total/NA	Solid	8015B NM	73090
890-6152-5	FS 129	Total/NA	Solid	8015B NM	73090
890-6152-6	FS 130	Total/NA	Solid	8015B NM	73090
890-6152-7	FS 131	Total/NA	Solid	8015B NM	73090
890-6152-8	FS 132	Total/NA	Solid	8015B NM	73090
890-6152-9	FS 133	Total/NA	Solid	8015B NM	73090
890-6152-10	FS 134	Total/NA	Solid	8015B NM	73090
890-6152-11	FS 002	Total/NA	Solid	8015B NM	73090
890-6152-12	FS 077	Total/NA	Solid	8015B NM	73090
890-6152-13	FS 087	Total/NA	Solid	8015B NM	73090
890-6152-14	FS 135	Total/NA	Solid	8015B NM	73090
890-6152-15	SW 06	Total/NA	Solid	8015B NM	73090
890-6152-16	SW 07	Total/NA	Solid	8015B NM	73090
890-6152-17	SW 08	Total/NA	Solid	8015B NM	73090
890-6152-18	SW 11	Total/NA	Solid	8015B NM	73090
MB 880-73090/1-A	Method Blank	Total/NA	Solid	8015B NM	73090
LCS 880-73090/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73090
LCSD 880-73090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73090
890-6152-1 MS	FS 119	Total/NA	Solid	8015B NM	73090
890-6152-1 MSD	FS 119	Total/NA	Solid	8015B NM	73090

Analysis Batch: 73550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-1	FS 119	Total/NA	Solid	8015 NM	
890-6152-2	FS 120	Total/NA	Solid	8015 NM	
890-6152-3	FS 122	Total/NA	Solid	8015 NM	
890-6152-4	FS 128	Total/NA	Solid	8015 NM	
890-6152-5	FS 129	Total/NA	Solid	8015 NM	
890-6152-6	FS 130	Total/NA	Solid	8015 NM	
890-6152-7	FS 131	Total/NA	Solid	8015 NM	
890-6152-8	FS 132	Total/NA	Solid	8015 NM	
890-6152-9	FS 133	Total/NA	Solid	8015 NM	
890-6152-10	FS 134	Total/NA	Solid	8015 NM	
890-6152-11	FS 002	Total/NA	Solid	8015 NM	
890-6152-12	FS 077	Total/NA	Solid	8015 NM	
890-6152-13	FS 087	Total/NA	Solid	8015 NM	
890-6152-14	FS 135	Total/NA	Solid	8015 NM	
890-6152-15	SW 06	Total/NA	Solid	8015 NM	
890-6152-16	SW 07	Total/NA	Solid	8015 NM	
890-6152-17	SW 08	Total/NA	Solid	8015 NM	
890-6152-18	SW 11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-1	FS 119	Soluble	Solid	DI Leach	
890-6152-2	FS 120	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

HPLC/IC (Continued)

Leach Batch: 73042 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-3	FS 122	Soluble	Solid	DI Leach	
890-6152-4	FS 128	Soluble	Solid	DI Leach	
890-6152-5	FS 129	Soluble	Solid	DI Leach	
890-6152-6	FS 130	Soluble	Solid	DI Leach	
890-6152-7	FS 131	Soluble	Solid	DI Leach	
890-6152-8	FS 132	Soluble	Solid	DI Leach	
890-6152-9	FS 133	Soluble	Solid	DI Leach	
890-6152-10	FS 134	Soluble	Solid	DI Leach	
890-6152-11	FS 002	Soluble	Solid	DI Leach	
890-6152-12	FS 077	Soluble	Solid	DI Leach	
890-6152-13	FS 087	Soluble	Solid	DI Leach	
890-6152-14	FS 135	Soluble	Solid	DI Leach	
890-6152-15	SW 06	Soluble	Solid	DI Leach	
890-6152-16	SW 07	Soluble	Solid	DI Leach	
890-6152-17	SW 08	Soluble	Solid	DI Leach	
890-6152-18	SW 11	Soluble	Solid	DI Leach	
MB 880-73042/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73042/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73042/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6152-1 MS	FS 119	Soluble	Solid	DI Leach	
890-6152-1 MSD	FS 119	Soluble	Solid	DI Leach	
890-6152-11 MS	FS 002	Soluble	Solid	DI Leach	
890-6152-11 MSD	FS 002	Soluble	Solid	DI Leach	

Analysis Batch: 73102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6152-1	FS 119	Soluble	Solid	300.0	73042
890-6152-2	FS 120	Soluble	Solid	300.0	73042
890-6152-3	FS 122	Soluble	Solid	300.0	73042
890-6152-4	FS 128	Soluble	Solid	300.0	73042
890-6152-5	FS 129	Soluble	Solid	300.0	73042
890-6152-6	FS 130	Soluble	Solid	300.0	73042
890-6152-7	FS 131	Soluble	Solid	300.0	73042
890-6152-8	FS 132	Soluble	Solid	300.0	73042
890-6152-9	FS 133	Soluble	Solid	300.0	73042
890-6152-10	FS 134	Soluble	Solid	300.0	73042
890-6152-11	FS 002	Soluble	Solid	300.0	73042
890-6152-12	FS 077	Soluble	Solid	300.0	73042
890-6152-13	FS 087	Soluble	Solid	300.0	73042
890-6152-14	FS 135	Soluble	Solid	300.0	73042
890-6152-15	SW 06	Soluble	Solid	300.0	73042
890-6152-16	SW 07	Soluble	Solid	300.0	73042
890-6152-17	SW 08	Soluble	Solid	300.0	73042
890-6152-18	SW 11	Soluble	Solid	300.0	73042
MB 880-73042/1-A	Method Blank	Soluble	Solid	300.0	73042
LCS 880-73042/2-A	Lab Control Sample	Soluble	Solid	300.0	73042
LCSD 880-73042/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73042
890-6152-1 MS	FS 119	Soluble	Solid	300.0	73042
890-6152-1 MSD	FS 119	Soluble	Solid	300.0	73042
890-6152-11 MS	FS 002	Soluble	Solid	300.0	73042
890-6152-11 MSD	FS 002	Soluble	Solid	300.0	73042

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 119

Lab Sample ID: 890-6152-1

Date Collected: 02/09/24 09:28

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 00:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 00:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/17/24 20:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 20:25	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 17:11	CH	EET MID

Client Sample ID: FS 120

Lab Sample ID: 890-6152-2

Date Collected: 02/09/24 09:24

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 00:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 00:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/17/24 21:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 21:31	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 17:32	CH	EET MID

Client Sample ID: FS 122

Lab Sample ID: 890-6152-3

Date Collected: 02/09/24 09:26

Matrix: Solid

Date Received: 02/09/24 14:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 00:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 00:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/17/24 21:53	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 21:53	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 17:39	CH	EET MID

Client Sample ID: FS 128

Lab Sample ID: 890-6152-4

Date Collected: 02/09/24 09:49

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 01:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 01:11	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: FS 128

Lab Sample ID: 890-6152-4

Date Collected: 02/09/24 09:49

Matrix: Solid

Date Received: 02/09/24 14:53

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			73550	02/17/24 22:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 22:15	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 17:46	CH	EET MID

Client Sample ID: FS 129

Lab Sample ID: 890-6152-5

Date Collected: 02/09/24 09:50

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 01:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 01:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/17/24 22:37	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 22:37	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 17:53	CH	EET MID

Client Sample ID: FS 130

Lab Sample ID: 890-6152-6

Date Collected: 02/09/24 09:52

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 01:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 01:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/17/24 22:59	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 22:59	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 18:13	CH	EET MID

Client Sample ID: FS 131

Lab Sample ID: 890-6152-7

Date Collected: 02/09/24 09:53

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 02:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 02:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/17/24 23:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 23:21	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Client Sample ID: FS 131

Lab Sample ID: 890-6152-7

Date Collected: 02/09/24 09:53

Matrix: Solid

Date Received: 02/09/24 14:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 18:20	CH	EET MID

Client Sample ID: FS 132

Lab Sample ID: 890-6152-8

Date Collected: 02/09/24 09:54

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 02:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 02:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/17/24 23:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 23:43	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 18:27	CH	EET MID

Client Sample ID: FS 133

Lab Sample ID: 890-6152-9

Date Collected: 02/09/24 10:54

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 02:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 02:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 00:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 00:04	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 18:34	CH	EET MID

Client Sample ID: FS 134

Lab Sample ID: 890-6152-10

Date Collected: 02/09/24 09:51

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 03:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 03:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 00:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 00:26	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 18:40	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: FS 002

Lab Sample ID: 890-6152-11

Date Collected: 02/09/24 11:27

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 05:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 05:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 01:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 01:10	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 18:47	CH	EET MID

Client Sample ID: FS 077

Lab Sample ID: 890-6152-12

Date Collected: 02/09/24 11:22

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 05:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 05:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 01:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 01:31	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 19:08	CH	EET MID

Client Sample ID: FS 087

Lab Sample ID: 890-6152-13

Date Collected: 02/09/24 11:50

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 05:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 05:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 01:53	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 01:53	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 19:15	CH	EET MID

Client Sample ID: FS 135

Lab Sample ID: 890-6152-14

Date Collected: 02/09/24 10:53

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 06:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 06:06	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: FS 135

Lab Sample ID: 890-6152-14

Date Collected: 02/09/24 10:53

Matrix: Solid

Date Received: 02/09/24 14:53

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			73550	02/18/24 02:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 02:15	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 19:35	CH	EET MID

Client Sample ID: SW 06

Lab Sample ID: 890-6152-15

Date Collected: 02/09/24 13:05

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 06:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 06:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 02:37	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 02:37	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 19:42	CH	EET MID

Client Sample ID: SW 07

Lab Sample ID: 890-6152-16

Date Collected: 02/09/24 13:11

Matrix: Solid

Date Received: 02/09/24 14:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 06:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 06:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 02:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 02:59	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 19:49	CH	EET MID

Client Sample ID: SW 08

Lab Sample ID: 890-6152-17

Date Collected: 02/09/24 13:14

Matrix: Solid

Date Received: 02/09/24 14:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 07:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 07:08	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 03:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 03:21	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
 SDG: 03C2284002

Client Sample ID: SW 08

Lab Sample ID: 890-6152-17

Date Collected: 02/09/24 13:14

Matrix: Solid

Date Received: 02/09/24 14:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 19:56	CH	EET MID

Client Sample ID: SW 11

Lab Sample ID: 890-6152-18

Date Collected: 02/09/24 13:02

Matrix: Solid

Date Received: 02/09/24 14:53

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	73276	02/15/24 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73611	02/21/24 07:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73757	02/21/24 07:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			73550	02/18/24 03:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	73090	02/13/24 16:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 03:43	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73042	02/13/24 12:07	SA	EET MID
Soluble	Analysis	300.0		1			73102	02/13/24 20:03	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

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	T104704400-23-26	06-30-24

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

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

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line

Job ID: 890-6152-1
SDG: 03C2284002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6152-1	FS 119	Solid	02/09/24 09:28	02/09/24 14:53	2'
890-6152-2	FS 120	Solid	02/09/24 09:24	02/09/24 14:53	2'
890-6152-3	FS 122	Solid	02/09/24 09:26	02/09/24 14:53	2'
890-6152-4	FS 128	Solid	02/09/24 09:49	02/09/24 14:53	2'
890-6152-5	FS 129	Solid	02/09/24 09:50	02/09/24 14:53	2'
890-6152-6	FS 130	Solid	02/09/24 09:52	02/09/24 14:53	2'
890-6152-7	FS 131	Solid	02/09/24 09:53	02/09/24 14:53	2'
890-6152-8	FS 132	Solid	02/09/24 09:54	02/09/24 14:53	2'
890-6152-9	FS 133	Solid	02/09/24 10:54	02/09/24 14:53	2'
890-6152-10	FS 134	Solid	02/09/24 09:51	02/09/24 14:53	2'
890-6152-11	FS 002	Solid	02/09/24 11:27	02/09/24 14:53	2.5'
890-6152-12	FS 077	Solid	02/09/24 11:22	02/09/24 14:53	2.5'
890-6152-13	FS 087	Solid	02/09/24 11:50	02/09/24 14:53	2.5'
890-6152-14	FS 135	Solid	02/09/24 10:53	02/09/24 14:53	2.5"
890-6152-15	SW 06	Solid	02/09/24 13:05	02/09/24 14:53	0 - 2'
890-6152-16	SW 07	Solid	02/09/24 13:11	02/09/24 14:53	0 - 2'
890-6152-17	SW 08	Solid	02/09/24 13:14	02/09/24 14:53	0 - 2'
890-6152-18	SW 11	Solid	02/09/24 13:02	02/09/24 14:53	0 - 2'

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



Houston, TX (281) 340-4200 Dallas TX (214) 902-0300
Midland, TX (432) 704-5440 San Antonio, TX (210) 506-3334
El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1295
Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No. _____

www.yenico.com Page 1 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	
Company Name:	Ensolium	Company Name:	
Address:	601 N Marlenfeld St # 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	337-257-8307	Email:	

Project Name:	Desert Eagle Frac Line	Turn Around	
Project Number:	03C2284002	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	
Project Location:	32 59779, -104.12049	Due Date:	
Sampler's Name:	Kaoru Shimada	TAT starts the day received by the lab, if received by 4:30pm	
PO #:		Wet Ice:	Yes No

SAMPLE RECEIPT	Temp Blank:	Yes No	Thermometer ID:	Wet Ice:	Yes No
Samples Received In/Out:	Yes No	N/A	Correction Factor:		
Cooler Custody Seals:	Yes No	N/A	Temperature Reading:		
Sample Custody Seals:	Yes No	N/A	Temperature Reading:		
Total Containers:			Corrected Temperature:		

Parameters	CHLORIDES (EPA: 3000.0)		
	TPH (8015)		
	BTEX (8021)		



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab Comp	# of Cont	CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)
FS 119	Soil	2/9/19	9:28	2'		1	X	X	X
FS 120			9:29			1	X	X	X
FS 122			9:26			1	X	X	X
FS 128			9:49			1	X	X	X
FS 129			9:50			1	X	X	X
FS 130			9:52			1	X	X	X
FS 131			9:53			1	X	X	X
FS 132			9:54			1	X	X	X
FS 133			10:54			1	X	X	X
FS 134	Soil	2/9/19	4:50	2'	C	1	X	X	X

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and analysis. Assume any responsibility for any losses or damages incurred by the client or such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$35.00 will be applied to each project and a charge of \$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
<i>[Signature]</i>	<i>[Signature]</i>	1453			



Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
 Midland, TX (432) 704-5444, San Antonio, TX (210) 509-5334
 El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3198

Chain of Custody

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Tacoma Morrissey	Bill To: (if different)	
Company Name:	Ersolum	Company Name:	
Address:	601 N Mainfield St # 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	337-257-8307	Email:	

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:	Desert Eagle Frac Line	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03C2284002	Due Date:		CHLORIDES (EPA: 3000.0)	
Project Location:	32.59779, -104.12049	TAT starts the day received by the lab; if received by 4:30pm		TPH (8015)	
Sampler's Name:	Kaoru Shimada	Wet Ice:	Yes No	BTEX (8021)	
PO #:		Thermometer ID:			
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Correction Factor:			
Samples Received In-lab:	Yes No	Temperature Reading:			
Cooler Custody Seals:	Yes No	Corrected Temperature:			
Sample Custody Seals:	Yes No				
Total Containers:					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (ft)	Grav # of Comp	ANALYSIS REQUEST	Preservative Codes	Sample Comments
K 002	Soil	2/9/14	1122	2.5	1	X X X	DI Water: H ₂ O	Incident ID:
B 079			1150				Cool: Cool	Cost Center:
B 089			1053	2.5			HCL HC	AFC:
SX 55194			1205	0-2'			H ₂ SO ₄ : H ₂	
FC 135			1311				H ₃ PO ₄ : HP	
SW 06			1302	0-2'			NAHSO ₄ : NABIS	
SW 09							Na ₂ S ₂ O ₅ : NASO ₅	
SW 08							Zn Acetate+NaOH: Zn	
SW 11							NaOH+Ascorbic Acid: SAPC	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag 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 sample and shall not assume any responsibility for any losses or damages incurred by the client. Each holder is deemed to have agreed to the terms and conditions of service. A minimum charge of \$85.00 will be applied to each project and a charge of \$4 for each sample submitted to Eurofins Xenco. Our terms and conditions apply to all services provided. Please refer to our website for more information.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	14:55	<i>[Signature]</i>	<i>[Signature]</i>	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6152-1

SDG Number: 03C2284002

Login Number: 6152

List Source: Eurofins Carlsbad

List Number: 1

Creator: Bruns, Shannon

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6152-1

SDG Number: 03C2284002

Login Number: 6152

List Number: 2

Creator: Wheeler, Jazmine

List Source: Eurofins Midland

List Creation: 02/13/24 11:26 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	

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



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 28, 2024

TACOMA MORRISSEY
ENSOLUM, LLC
705 W WADLEY AVE.
MIDLAND, TX 79705

RE: DESERT EAGLE FRAC LINE

Enclosed are the results of analyses for samples received by the laboratory on 02/23/24 11:26.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 005 @ 1.25' (H240902-01)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.21	110	2.00	3.09	
Toluene*	<0.050	0.050	02/26/2024	ND	2.07	104	2.00	3.99	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.09	104	2.00	5.62	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.06	101	6.00	6.27	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 79.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 012 @ 1.25' (H240902-02)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.21	110	2.00	3.09	
Toluene*	<0.050	0.050	02/26/2024	ND	2.07	104	2.00	3.99	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.09	104	2.00	5.62	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.06	101	6.00	6.27	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 73.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 014 @ 1.25' (H240902-03)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 79.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 065 @ 2.25' (H240902-04)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 070 @ 1.25' (H240902-05)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 83.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 074 @ 1.25' (H240902-06)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 79.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 121 @ 2.25' (H240902-07)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 79.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 124 @ 2.25' (H240902-08)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 76.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 127 @ 2.25' (H240902-09)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 87.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 117 @ 2.25' (H240902-10)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 89.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 100 @ 1.25' (H240902-11)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99		
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28		
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13		
Total BTEX	<0.300	0.300	02/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	02/27/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	217	109	200	1.79		
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	217	109	200	0.619		
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND						

Surrogate: 1-Chlorooctane 66.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 61.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 099 @ 1.25' (H240902-12)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 64.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.9 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 098 @ 1.25' (H240902-13)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 72.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 097 @ 1.25' (H240902-14)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99		
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28		
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41		
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13		
Total BTEX	<0.300	0.300	02/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/27/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 74.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 096 @ 1.25' (H240902-15)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 75.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 73.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 053 @ 1.25' (H240902-16)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 69.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 091 @ 1.25' (H240902-17)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/27/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 69.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 092 @ 2.25' (H240902-18)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 77.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 057 @ 1.25' (H240902-19)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 78.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 058 @ 1.25' (H240902-20)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 78.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 060 @ 1.25' (H240902-21)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 62.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 60.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 062 @ 1.25' (H240902-22)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.17	108	2.00	1.99	
Toluene*	<0.050	0.050	02/26/2024	ND	2.17	109	2.00	2.28	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.15	108	2.00	2.41	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.51	108	6.00	2.13	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 70.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 68.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 086 @ 1.25' (H240902-23)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/26/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 68.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 66.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/21/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 090 @ 1.25' (H240902-24)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 77.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 043 @ 2' (H240902-25)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 76.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 048 @ 2' (H240902-26)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31		
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/27/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 63.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 050 @ 2' (H240902-27)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31		
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/27/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 75.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 74.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 051 @ 2' (H240902-28)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 63.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 052 @ 2' (H240902-29)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31		
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	02/27/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 72.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 026 @ 2' (H240902-30)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 60.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 60.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 05 @ 0 - 1.25' (H240902-31)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	192	96.0	200	1.28	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	178	88.8	200	0.510	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 54.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 53.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 09 @ 0 - 2' (H240902-32)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31		
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/27/2024	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 10 @ 0 - 2.25' (H240902-33)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 83.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 03 @ 0 - 2.5' (H240902-34)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 04 @ 0 - 2.25' (H240902-35)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 82.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 12 @ 0 - 2.25' (H240902-36)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 82.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 13 @ 0 - 2.25' (H240902-37)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/27/2024	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 91.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 02 @ 0 - 2' (H240902-38)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31		
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	02/27/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.5 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 14 @ 0 - 2' (H240902-39)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31		
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	02/27/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 93.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 01 @ 0 - 2.5' (H240902-40)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31		
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35		
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58		
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60		
Total BTEX	<0.300	0.300	02/27/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	02/27/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 84.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.0 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 049 @ 2' (H240902-41)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/27/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 72.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 69.4 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 16 @ 0 - 2.25' (H240902-42)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/27/2024	ND	2.05	103	2.00	7.31	
Toluene*	<0.050	0.050	02/27/2024	ND	2.04	102	2.00	7.35	
Ethylbenzene*	<0.050	0.050	02/27/2024	ND	2.02	101	2.00	7.58	
Total Xylenes*	<0.150	0.150	02/27/2024	ND	6.17	103	6.00	6.60	
Total BTEX	<0.300	0.300	02/27/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/27/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 84.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.1 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 17 @ 0 - 2' (H240902-43)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2024	ND	1.92	96.0	2.00	3.00		
Toluene*	<0.050	0.050	02/26/2024	ND	1.99	99.7	2.00	0.934		
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	1.99	99.4	2.00	0.940		
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.05	101	6.00	0.475		
Total BTEX	<0.300	0.300	02/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/27/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 82.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 08 @ 0 - 2.5' (H240902-44)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2024	ND	1.92	96.0	2.00	3.00		
Toluene*	<0.050	0.050	02/26/2024	ND	1.99	99.7	2.00	0.934		
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	1.99	99.4	2.00	0.940		
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.05	101	6.00	0.475		
Total BTEX	<0.300	0.300	02/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/27/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 67.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.7 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 131 @ 2.25' (H240902-45)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	1.92	96.0	2.00	3.00	
Toluene*	<0.050	0.050	02/26/2024	ND	1.99	99.7	2.00	0.934	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	1.99	99.4	2.00	0.940	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.05	101	6.00	0.475	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/27/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND					

Surrogate: 1-Chlorooctane 82.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 119 @ 2.25' (H240902-46)

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2024	ND	1.92	96.0	2.00	3.00	
Toluene*	<0.050	0.050	02/26/2024	ND	1.99	99.7	2.00	0.934	
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	1.99	99.4	2.00	0.940	
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.05	101	6.00	0.475	
Total BTEX	<0.300	0.300	02/26/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/27/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/27/2024	ND	202	101	200	3.07	
DRO >C10-C28*	<10.0	10.0	02/27/2024	ND	199	99.7	200	2.76	
EXT DRO >C28-C36	<10.0	10.0	02/27/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: SW 15 @ 0 - 2.5' (H240902-47)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2024	ND	1.92	96.0	2.00	3.00		
Toluene*	<0.050	0.050	02/26/2024	ND	1.99	99.7	2.00	0.934		
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	1.99	99.4	2.00	0.940		
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.05	101	6.00	0.475		
Total BTEX	<0.300	0.300	02/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/27/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 74.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 70.6 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
 TACOMA MORRISSEY
 705 W WADLEY AVE.
 MIDLAND TX, 79705
 Fax To:

Received:	02/23/2024	Sampling Date:	02/22/2024
Reported:	02/28/2024	Sampling Type:	Soil
Project Name:	DESERT EAGLE FRAC LINE	Sampling Condition:	Cool & Intact
Project Number:	03C22845002	Sample Received By:	Dionica Hinojos
Project Location:	32.59779- 104.12049		

Sample ID: FS 120 @ 2.25' (H240902-48)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2024	ND	1.92	96.0	2.00	3.00		
Toluene*	<0.050	0.050	02/26/2024	ND	1.99	99.7	2.00	0.934		
Ethylbenzene*	<0.050	0.050	02/26/2024	ND	1.99	99.4	2.00	0.940		
Total Xylenes*	<0.150	0.150	02/26/2024	ND	6.05	101	6.00	0.475		
Total BTEX	<0.300	0.300	02/26/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/27/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	02/26/2024	ND	202	101	200	3.07		
DRO >C10-C28*	<10.0	10.0	02/26/2024	ND	199	99.7	200	2.76		
EXT DRO >C28-C36	<10.0	10.0	02/26/2024	ND						

Surrogate: 1-Chlorooctane 78.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.3 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: ENSOLUM, LLC
Project Manager: Tacoma Morrissey
Address: Midland

City: 4001 N Mahanfield St #400 State: TX Zip: 79701
Phone #: (337) 257-8307 Fax #:

Project #: 03C 2284002 Project Owner:
Project Name: Desert Eagle Frac Line

Project Location: 32.59779, -104.12049
Sampler Name: Manaha O'Dell

FOR USE ONLY

Lab I.D. #445902
Sample I.D. * 207 5 269

Company Name: ENSOLUM, LLC
Address: 4001 N Mahanfield St #400
City: Midland State: TX Zip: 79701
Phone #: (337) 257-8307 Fax #:

Sample I.D.	Time	Matrix	Preserv	Date	Time	ANALYSIS REQUEST		
						Chlorides	TPH	BTEX
FS0005	@ 1.25'	(G)RAB OR (C)OMP	✓	2/21/24	9:50	X	X	X
FS0112	@ 1.25'							
FS0114	@ 1.25'							
FS0105	@ 2.25'							
FS070	@ 1.25'							
FS074	@ 1.25'							
FS121	@ 2.25'							
FS124	@ 2.25'							
FS127	@ 2.25'							
FS117	@ 2.25'							

RELEASE NOTE: Lab ID and Sample ID are required for all samples. Samples must be returned to the provider paid for by the client. All samples, including those for analysis and any other special requests, shall be returned to the provider within 30 days of completion of the analysis. All samples must be returned to the provider within 30 days of completion of the analysis. All samples must be returned to the provider within 30 days of completion of the analysis.

Delivered By: (Circle One)
Sampler - UPS - Bus - Other
Corrected Temp. °C

Observed Temp. °C 3.1
Corrected Temp. °C
Sample Condition
Cool Intact
Yes No

CHECKED BY: (Initials)
Date: 2/23/24
Received By: [Signature]

Verbal Result: Yes No
All Results are emailed. Please provide Email address:
tmorrissey@ensolum.com, modelle@ensolum.com

REMARKS:
Incident # NAPP2402220359
Customer requested ID changes to class at turnaround time: 5 days
Thermometer ID #140
Correction Factor °C
Bacteria (only) Sample Condition
Cool Intact
Yes No

↑ Cardinal cannot accept verbal changes. Please email changes to celej.keene@cardinallabsnm.com



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: ENSOLUUM, LLC

Project Manager: TACOMA MORRISSEY

Address: 001 N Mahanfeld St # 400

City: Midland

State: TX Zip: 79701

Phone #: (537) 257-8307 Fax #:

Project #: 0362284002 Project Owner:

Project Name: Desert Eagle Frac Line

Project Location: 32 59 TTG - 104-12049

Sampler Name: Marihana O'Dell

FOR LAB USE ONLY

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: ENSOLUUM, LLC

Attn: TACOMA MORRISSEY

Address: 001 N MAHANFELD ST

City: Midland

State: TX Zip: 79701

Phone #: (537) 257-8307

Fax #:

HA09902
Lab I.D.

Sample I.D.

Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX	PRESERV	SAMPLING	DATE	TIME	Chlorides	TPH	BTEX
ES100 @ 1.25'	C	1	SOIL	X		12:24	12:25	X	X	X
FS099 @ 1.25'			GROUNDWATER			12:24	12:25	X	X	X
FS098 @ 1.25'			WASTEWATER			12:24	12:25	X	X	X
FS097 @ 1.25'			SOIL			12:24	12:30	X	X	X
FS094 @ 1.25'			SOIL			12:24	12:35	X	X	X
FS053 @ 1.25'			SOIL			12:24	12:40	X	X	X
FS091 @ 1.25'			SOIL			12:24	12:45	X	X	X
FS092 @ 1.25'			SOIL			12:24	13:05	X	X	X
FS057 @ 1.25'			SOIL			12:24	13:15	X	X	X
FS058 @ 1.25'			SOIL			12:24	13:20	X	X	X
			SOIL			12:24	13:55	X	X	X

LEASE NOTE: Unclassified and Designated Substances... (G)RAB OR (C)OMP... MATRIX... PRESERV... SAMPLING... DATE... TIME... Chlorides... TPH... BTEX

Relinquished By: [Signature] Date: 2/23/24 Time: 11:26

Received By: [Signature]

Delivered By: (Circle One) Observed Temp. °C: 3.1pc Corrected Temp. °C: [blank]

Printer - UPS - Bus - Other: Sample Condition: Cool Intact Yes No Checked By: [Signature]

Turnaround Time: 5 days Standard KUSTI Bacteria (only) Sample Condition: Cool Intact Yes No Observed Temp. °C: [blank] Corrected Temp. °C: [blank]



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: ENSOLUM, LLC

Project Manager: TACOMA MORRISSEY

Address: 001 N Marientfield St #400

City: Midland

State: TX Zip: 79701

Phone #: (337) 257-8307

Project #: 03C2284002

Project Name: Desert Eagle Frac Line

Project Location: 32.59779 - 104.12049

Sampler Name: Maraha D Dell

BILL TO

Company: ENSOLUM, LLC

Attn: Tacoma Morrissey

Address: 001 N Marientfield St #400

City: Midland

State: TX Zip: 79701

Phone #: (337) 257-8307

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX							PRESERV	SAMPLING	DATE	TIME	ANALYSIS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE					
H40902	FS0000 @ 1.25'	1	1	X	X	X	X	X	X	X	1	2/22/24	14:00	X	Chlorides
	FS0002 @ 1.25'			X	X	X	X	X	X	X	1	2/22/24	14:05	X	TPH
	FS0800 @ 1.25'			X	X	X	X	X	X	X	1	2/22/24	14:10	X	BTEX
	FS0090 @ 1.25'			X	X	X	X	X	X	X	1	2/22/24	13:45		
	FS0400 @ 2.1'			X	X	X	X	X	X	X	1	2/22/24	9:20		
	FS0408 @ 2.1'			X	X	X	X	X	X	X	1	2/22/24	9:30		
	FS0500 @ 2.1'			X	X	X	X	X	X	X	1	2/22/24	9:35		
	FS0501 @ 2.1'			X	X	X	X	X	X	X	1	2/22/24	9:40		
	FS0502 @ 2.1'			X	X	X	X	X	X	X	1	2/22/24	10:00		
	FS0200 @ 2.1'			X	X	X	X	X	X	X	1	2/22/24	10:10		

PLEASE NOTE: Laboratory personnel will collect and analyze samples for any other string number listed on the label by the amount paid by the client for the analysis. All labels including those for emergency spill response shall be obtained through the client. Samples must be analyzed by Cardinal within 30 days after completion of the analysis. By the client's signature below, the client certifies that the samples were collected and analyzed in accordance with the Chain of Custody and Analysis Request form and that the results are accurate and reliable. The client also certifies that the samples were collected and analyzed in accordance with the Chain of Custody and Analysis Request form and that the results are accurate and reliable. The client also certifies that the samples were collected and analyzed in accordance with the Chain of Custody and Analysis Request form and that the results are accurate and reliable.

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other
 Corrected Temp. °C

Observed Temp. °C
 Corrected Temp. °C
 Sample Condition
 Cool Intact
 Yes No

Checked By: (Initials)
 Received By: (Signature)
 Date: 2/23/24
 Time: 11:20

Remarks: **Customer requested Sample ID changes. See 2/23/24**
 Incident #: NADDP2402220359
 Turnaround Time: 5 days
 Technician ID: #140
 Correction Factor: 0°C

Verbal Results: Yes No
 Add'l Phone #: _____
 All Results are emailed. Please provide Email address: tmorrissey@ensolum.com, modell@ensolum.com
 Bacteria (only) Sample Condition: Cool Intact Observed Temp. °C



101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

Company: ENSOLUUM, LLC
 Attn: TACOMA MORRISSEY
 Address: 101 N Marland St #400
 City: Midland
 State: TX Zip: 79701
 Phone #: 351-257-8307
 Fax #:

ANALYSIS REQUEST

Sample I.D.	Depth	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX	PRESERV	SAMPLING	DATE	TIME	Chlorides	TPH	BTEX
31	SW05 @ 0-1.25'	C	1	SOIL	ICE COOL	Y	2/22/24	10:15	X	X	X
32	SW09 @ 0-2'	C	1	SOIL	ICE COOL	Y	2/22/24	10:20	X	X	X
33	SW10 @ 0-2.25'	C	1	SOIL	ICE COOL	Y	2/22/24	10:25	X	X	X
34	SW03 @ 0-2.5'	C	1	SOIL	ICE COOL	Y	2/22/24	10:45	X	X	X
35	SW04 @ 0-2.25'	C	1	SOIL	ICE COOL	Y	2/22/24	10:50	X	X	X
36	SW12 @ 0-2.25'	C	1	SOIL	ICE COOL	Y	2/22/24	10:55	X	X	X
37	SW13 @ 0-2.25'	C	1	SOIL	ICE COOL	Y	2/22/24	11:00	X	X	X
38	SW02 @ 0-2'	C	1	SOIL	ICE COOL	Y	2/22/24	11:15	X	X	X
39	SW14 @ 0-2'	C	1	SOIL	ICE COOL	Y	2/22/24	11:20	X	X	X
40	SW01 @ 0-2.5'	C	1	SOIL	ICE COOL	Y	2/22/24	11:25	X	X	X

PLEASE NOTE: Lability and Damages: Cardinal's liability and client's respective remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits, incurred by client, its subsidiaries, affiliates or successors arising out of or in connection with the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the foregoing stated reasons or otherwise.

Received By: [Signature]

Date: 2/23/24
Time: 11:20

Received By: [Signature]

Date: [Blank]
Time: [Blank]

Relinquished By: [Signature]
 Delivered By: (Circle One)
 amples - UPS - Bus - Other: [Blank]

Observed Temp. °C: 3.1
 Corrected Temp. °C: [Blank]

Sample Condition:
 Cool Intact: Yes [X] No []
 Bacteria (only) Sample Condition: Cool Intact: Yes [] No []

CHECKED BY: [Signature]

Turnaround Time: 5 days

Standard: [X] Standard
KUSH

Bacteria (only) Sample Condition: Cool Intact: Yes [] No []

REMARKS: Incident #: NAPP 240222 0359
 Verbal Result: [] Yes [] No [] Add'l Phone #: [Blank]
 All Results are emailed. Please provide Email address: tmorrissey@ensolum.com, model@ensolum.com



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Company Name: ENSOLUM, LLC
 Project Manager: TACOMA MORRISSEY
 Address: 001 N. Marientfeld St # 400
 City: Midland State: TX Zip: 79701
 Phone #: (337) 257-8307 Fax #: _____
 Project #: 03C2284002 Project Owner: _____
 Project Name: DESERT Eagle Frac Line
 Project Location: 32.59779, -104.12049
 Sampler Name: MARIANA O'DELL
 P.O. #: _____
 Company: ENSOLUM, LLC
 Attn: TACOMA MORRISSEY
 Address: 001 N Marientfeld St # 400
 City: Midland State: TX Zip: 79701
 Phone #: (337) 257-8307 Fax #: _____

Sample I.D.	FOR LAB USE ONLY	(G)RAB OR (C)OMP.	MATRIX							DATE	TIME	ANALYSIS	REMARKS
			# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :				
41	FS049 @ 2'	C											
42	SW110 @ 0-2.25'	X							2/22/24	9:25	X	X	Chlorides
43	SW110 @ 0-2'	X								11:45	X	X	TPH
44	SM08 @ 0-2.5'	X								12:40	X	X	BTEX
45	FS131 @ 2.25'	X								12:45	X	X	
46	FS119 @ 2.25'	X								12:50	X	X	
47	SW15 @ 0-2.5'	X								13:45	X	X	
48	FS120 @ 2.25'	X								13:45	X	X	

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. It is no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: MORRISSEY Date: 2/23/24 Time: 11:20
 Received By: [Signature] Date: _____ Time: _____
 Delivered By: (Circle One) Observed Temp. °C: 3.1 Corrected Temp. °C: _____
 Sampler - UPS - Bus - Other: _____
 Sample Condition: Cool Intact Yes No Yes No
 CHECKED BY: (Initials) [Signature]
 Verbal Result: Yes No Add'l Phone #: _____
 All Results are emailed. Please provide Email address: tmorrissey@ensolum.com, modelle@ensolum.com
 REMARKS: Incident #: NAPP2402220359
 *Customer requested Sample ID Changes
 Turnaround Time: _____ Standard Rush
 Thermometer ID #113 Bacteria (only) Sample Condition: Cool Intact Yes No Yes No
 Correction Factor -0.5°C Corrected Temp. °C: _____

† Cardinal cannot accept verbal changes. Please email changes to celestia.keene@cardinallabsnm.com



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/31/2024 12:33:49 PM

JOB DESCRIPTION

Desert Eagle Fracline
03C2284002

JOB NUMBER

890-5981-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
1/31/2024 12:33:49 PM

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

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

Client: Ensolum
Project/Site: Desert Eagle Fracline

Laboratory Job ID: 890-5981-1
SDG: 03C2284002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	19
Lab Chronicle	22
Certification Summary	25
Method Summary	26
Sample Summary	27
Chain of Custody	28
Receipt Checklists	29

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: Desert Eagle Fracline

Job ID: 890-5981-1

Job ID: 890-5981-1

Eurofins Carlsbad

Job Narrative 890-5981-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/17/2024 3:08 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 -1.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS 01 (890-5981-1), SS 02 (890-5981-2), SS 03 (890-5981-3), SS 04 (890-5981-4), SS 05 (890-5981-5), SS 06 (890-5981-6) and SS 07 (890-5981-7).

GC VOA

Method 8021B: The laboratory control sample (LCS) for preparation batch 880-71537 and analytical batch 880-71915 recovered outside control limits for the following analytes: m-Xylene & p-Xylene. Since only an acceptable LCS or LCSD is required per the method, the LCSD shows recovery for the batch therefore the data has been qualified and reported.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-71537 and analytical batch 880-71915 was outside the control limits.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-71537 and analytical batch 880-71915 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample duplicate (LCSD) 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 sample was outside control limits: (LCS 880-71307/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-71450 and analytical batch 880-71766 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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.

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Client Sample ID: SS 01

Lab Sample ID: 890-5981-1

Date Collected: 01/17/24 11:47

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 11:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 11:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 11:08	1
m-Xylene & p-Xylene	<0.00398	U F1 *+	0.00398	mg/Kg		01/24/24 15:35	01/30/24 11:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 11:08	1
Xylenes, Total	<0.00398	U F1	0.00398	mg/Kg		01/24/24 15:35	01/30/24 11:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	01/24/24 15:35	01/30/24 11:08	1
1,4-Difluorobenzene (Surr)	89		70 - 130	01/24/24 15:35	01/30/24 11:08	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/30/24 11:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			01/29/24 22:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U *1	50.2	mg/Kg		01/23/24 13:07	01/29/24 22:18	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		01/23/24 13:07	01/29/24 22:18	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		01/23/24 13:07	01/29/24 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	01/23/24 13:07	01/29/24 22:18	1
o-Terphenyl	91		70 - 130	01/23/24 13:07	01/29/24 22:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3130		25.2	mg/Kg			01/22/24 19:17	5

Client Sample ID: SS 02

Lab Sample ID: 890-5981-2

Date Collected: 01/17/24 11:45

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 11:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 11:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 11:28	1
m-Xylene & p-Xylene	<0.00399	U *+	0.00399	mg/Kg		01/24/24 15:35	01/30/24 11:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 11:28	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/24/24 15:35	01/30/24 11:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	01/24/24 15:35	01/30/24 11:28	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Client Sample ID: SS 02

Lab Sample ID: 890-5981-2

Date Collected: 01/17/24 11:45

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130	01/24/24 15:35	01/30/24 11:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/30/24 11:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			01/29/24 22:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U *1	50.5	mg/Kg		01/23/24 13:07	01/29/24 22:40	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		01/23/24 13:07	01/29/24 22:40	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		01/23/24 13:07	01/29/24 22:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130	01/23/24 13:07	01/29/24 22:40	1
o-Terphenyl	101		70 - 130	01/23/24 13:07	01/29/24 22:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	485		5.05	mg/Kg			01/22/24 19:38	1

Client Sample ID: SS 03

Lab Sample ID: 890-5981-3

Date Collected: 01/17/24 11:42

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/24/24 15:35	01/30/24 11:49	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/24/24 15:35	01/30/24 11:49	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/24/24 15:35	01/30/24 11:49	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402	mg/Kg		01/24/24 15:35	01/30/24 11:49	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/24/24 15:35	01/30/24 11:49	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/24/24 15:35	01/30/24 11:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	01/24/24 15:35	01/30/24 11:49	1
1,4-Difluorobenzene (Surr)	70		70 - 130	01/24/24 15:35	01/30/24 11:49	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/30/24 11:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/29/24 23:01	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
 SDG: 03C2284002

Client Sample ID: SS 03

Lab Sample ID: 890-5981-3

Date Collected: 01/17/24 11:42

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8	mg/Kg		01/23/24 13:07	01/29/24 23:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		01/23/24 13:07	01/29/24 23:01	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/23/24 13:07	01/29/24 23:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130			01/23/24 13:07	01/29/24 23:01	1
o-Terphenyl	95		70 - 130			01/23/24 13:07	01/29/24 23:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8700		50.1	mg/Kg			01/23/24 12:17	10

Client Sample ID: SS 04

Lab Sample ID: 890-5981-4

Date Collected: 01/17/24 11:26

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:09	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:09	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:09	1
m-Xylene & p-Xylene	<0.00398	U *	0.00398	mg/Kg		01/24/24 15:35	01/30/24 12:09	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:09	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/24/24 15:35	01/30/24 12:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130			01/24/24 15:35	01/30/24 12:09	1
1,4-Difluorobenzene (Surr)	84		70 - 130			01/24/24 15:35	01/30/24 12:09	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/30/24 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			01/29/24 23:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U *1	49.6	mg/Kg		01/23/24 13:07	01/29/24 23:23	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		01/23/24 13:07	01/29/24 23:23	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		01/23/24 13:07	01/29/24 23:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			01/23/24 13:07	01/29/24 23:23	1
o-Terphenyl	90		70 - 130			01/23/24 13:07	01/29/24 23:23	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Client Sample ID: SS 04

Lab Sample ID: 890-5981-4

Date Collected: 01/17/24 11:26
Date Received: 01/17/24 15:08
Sample Depth: 0.25'

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3340		24.9	mg/Kg			01/23/24 12:24	5

Client Sample ID: SS 05

Lab Sample ID: 890-5981-5

Date Collected: 01/17/24 11:31
Date Received: 01/17/24 15:08
Sample Depth: 0.25'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00708		0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:30	1
Toluene	0.0503		0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:30	1
Ethylbenzene	0.0290		0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:30	1
m-Xylene & p-Xylene	0.120	*+	0.00398	mg/Kg		01/24/24 15:35	01/30/24 12:30	1
o-Xylene	0.0429		0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:30	1
Xylenes, Total	0.163		0.00398	mg/Kg		01/24/24 15:35	01/30/24 12:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			01/24/24 15:35	01/30/24 12:30	1
1,4-Difluorobenzene (Surr)	107		70 - 130			01/24/24 15:35	01/30/24 12:30	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.249		0.00398	mg/Kg			01/30/24 12:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	70.6		50.0	mg/Kg			01/22/24 17:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/22/24 09:16	01/22/24 17:06	1
Diesel Range Organics (Over C10-C28)	70.6		50.0	mg/Kg		01/22/24 09:16	01/22/24 17:06	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/22/24 09:16	01/22/24 17:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130			01/22/24 09:16	01/22/24 17:06	1
o-Terphenyl	75		70 - 130			01/22/24 09:16	01/22/24 17:06	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7620		49.7	mg/Kg			01/22/24 19:58	10

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Client Sample ID: SS 06

Lab Sample ID: 890-5981-6

Date Collected: 01/17/24 11:21

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:50	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:50	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:50	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398	mg/Kg		01/24/24 15:35	01/30/24 12:50	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/24/24 15:35	01/30/24 12:50	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/24/24 15:35	01/30/24 12:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	01/24/24 15:35	01/30/24 12:50	1
1,4-Difluorobenzene (Surr)	84		70 - 130	01/24/24 15:35	01/30/24 12:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/30/24 12:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/22/24 17:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/22/24 09:16	01/22/24 17:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/22/24 09:16	01/22/24 17:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/22/24 09:16	01/22/24 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	01/22/24 09:16	01/22/24 17:28	1
o-Terphenyl	82		70 - 130	01/22/24 09:16	01/22/24 17:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13500		99.4	mg/Kg			01/22/24 20:18	20

Client Sample ID: SS 07

Lab Sample ID: 890-5981-7

Date Collected: 01/17/24 11:13

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 13:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 13:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 13:11	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399	mg/Kg		01/24/24 15:35	01/30/24 13:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 13:11	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/24/24 15:35	01/30/24 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	01/24/24 15:35	01/30/24 13:11	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
 SDG: 03C2284002

Client Sample ID: SS 07

Lab Sample ID: 890-5981-7

Date Collected: 01/17/24 11:13

Matrix: Solid

Date Received: 01/17/24 15:08

Sample Depth: 0.25'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	80		70 - 130	01/24/24 15:35	01/30/24 13:11	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/30/24 13:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	186		49.8	mg/Kg			01/22/24 17:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		01/22/24 09:16	01/22/24 17:51	1
Diesel Range Organics (Over C10-C28)	186		49.8	mg/Kg		01/22/24 09:16	01/22/24 17:51	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		01/22/24 09:16	01/22/24 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130	01/22/24 09:16	01/22/24 17:51	1
o-Terphenyl	72		70 - 130	01/22/24 09:16	01/22/24 17:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13700		99.8	mg/Kg			01/22/24 20:25	20

Surrogate Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-5981-1	SS 01	74	89
890-5981-1 MS	SS 01	109	104
890-5981-1 MSD	SS 01	115	104
890-5981-2	SS 02	82	89
890-5981-3	SS 03	87	70
890-5981-4	SS 04	82	84
890-5981-5	SS 05	120	107
890-5981-6	SS 06	93	84
890-5981-7	SS 07	99	80
LCS 880-71537/1-A	Lab Control Sample	111	102
LCSD 880-71537/2-A	Lab Control Sample Dup	109	101
MB 880-71537/5-A	Method Blank	67 S1-	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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-38169-A-1-F MS	Matrix Spike	114	83
880-38169-A-1-G MSD	Matrix Spike Duplicate	123	95
880-38206-A-81-H MS	Matrix Spike	75	70
880-38206-A-81-I MSD	Matrix Spike Duplicate	79	72
890-5981-1	SS 01	112	91
890-5981-2	SS 02	124	101
890-5981-3	SS 03	118	95
890-5981-4	SS 04	110	90
890-5981-5	SS 05	75	75
890-5981-6	SS 06	77	82
890-5981-7	SS 07	70	72
LCS 880-71307/2-A	Lab Control Sample	109	135 S1+
LCS 880-71450/2-A	Lab Control Sample	80	71
LCSD 880-71307/3-A	Lab Control Sample Dup	96	117
LCSD 880-71450/3-A	Lab Control Sample Dup	90	93
MB 880-71307/1-A - RA2	Method Blank	82	85
MB 880-71450/1-A	Method Blank	124	105

Surrogate Legend
1CO = 1-Chlorooctane
OTPH = o-Terphenyl

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-71537/5-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71537

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 10:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/24/24 15:35	01/30/24 10:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/24/24 15:35	01/30/24 10:46	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/24/24 15:35	01/30/24 10:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130	01/24/24 15:35	01/30/24 10:46	1
1,4-Difluorobenzene (Surr)	88		70 - 130	01/24/24 15:35	01/30/24 10:46	1

Lab Sample ID: LCS 880-71537/1-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1118		mg/Kg		112	70 - 130
Toluene	0.100	0.1124		mg/Kg		112	70 - 130
Ethylbenzene	0.100	0.1262		mg/Kg		126	70 - 130
m-Xylene & p-Xylene	0.200	0.2642	*+	mg/Kg		132	70 - 130
o-Xylene	0.100	0.1256		mg/Kg		126	70 - 130

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

Lab Sample ID: LCSD 880-71537/2-A
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71537

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1041		mg/Kg		104	70 - 130	7	35
Toluene	0.100	0.1056		mg/Kg		106	70 - 130	6	35
Ethylbenzene	0.100	0.1153		mg/Kg		115	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2440		mg/Kg		122	70 - 130	8	35
o-Xylene	0.100	0.1157		mg/Kg		116	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 890-5981-1 MS
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: SS 01
Prep Type: Total/NA
Prep Batch: 71537

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0996	0.09687		mg/Kg		97	70 - 130
Toluene	<0.00199	U	0.0996	0.09463		mg/Kg		94	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

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

Lab Sample ID: 890-5981-1 MS
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: SS 01
Prep Type: Total/NA
Prep Batch: 71537

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0996	0.1029		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1 *+	0.199	0.2163		mg/Kg		109	70 - 130
o-Xylene	<0.00199	U	0.0996	0.1044		mg/Kg		105	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-5981-1 MSD
Matrix: Solid
Analysis Batch: 71915

Client Sample ID: SS 01
Prep Type: Total/NA
Prep Batch: 71537

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.1214		mg/Kg		123	70 - 130	22	35
Toluene	<0.00199	U	0.0990	0.1155		mg/Kg		116	70 - 130	20	35
Ethylbenzene	<0.00199	U	0.0990	0.1272		mg/Kg		128	70 - 130	21	35
m-Xylene & p-Xylene	<0.00398	U F1 *+	0.198	0.2662	F1	mg/Kg		134	70 - 130	21	35
o-Xylene	<0.00199	U	0.0990	0.1272		mg/Kg		128	70 - 130	20	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

Lab Sample ID: LCS 880-71307/2-A
Matrix: Solid
Analysis Batch: 71295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71307

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1034		mg/Kg		103	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1048		mg/Kg		105	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	135	S1+	70 - 130

Lab Sample ID: LCSD 880-71307/3-A
Matrix: Solid
Analysis Batch: 71295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71307

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	954.6		mg/Kg		95	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	983.3		mg/Kg		98	70 - 130	6	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

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

Lab Sample ID: LCSD 880-71307/3-A
Matrix: Solid
Analysis Batch: 71295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71307

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	96		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: 880-38206-A-81-H MS
Matrix: Solid
Analysis Batch: 71295

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71307

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec	Limits
	Result	Qualifier		Result	Qualifier					
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	998	735.7		mg/Kg		74		70 - 130
Diesel Range Organics (Over C10-C28)	<49.7	U	998	756.7		mg/Kg		76		70 - 130

Surrogate	MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	75		70 - 130
o-Terphenyl	70		70 - 130

Lab Sample ID: 880-38206-A-81-I MSD
Matrix: Solid
Analysis Batch: 71295

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71307

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec	Limits	RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	998	762.2		mg/Kg		76		70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.7	U	998	853.4		mg/Kg		86		70 - 130	12	20

Surrogate	MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	79		70 - 130
o-Terphenyl	72		70 - 130

Lab Sample ID: MB 880-71450/1-A
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71450

Analyte	MB		RL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier								
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/23/24 13:07	01/29/24 19:05			1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/23/24 13:07	01/29/24 19:05			1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/23/24 13:07	01/29/24 19:05			1

Surrogate	MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	124		70 - 130	01/23/24 13:07		01/29/24 19:05		1
o-Terphenyl	105		70 - 130	01/23/24 13:07		01/29/24 19:05		1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

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

Lab Sample ID: LCS 880-71450/2-A
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71450

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1170		mg/Kg		117	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	963.2		mg/Kg		96	70 - 130	
		LCS	LCS					
Surrogate		%Recovery	Qualifier	Limits				
1-Chlorooctane		80		70 - 130				
o-Terphenyl		71		70 - 130				

Lab Sample ID: LCSD 880-71450/3-A
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71450

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	918.4	*1	mg/Kg		92	70 - 130	24	20
Diesel Range Organics (Over C10-C28)	1000	1051		mg/Kg		105	70 - 130	9	20
		LCSD	LCSD						
Surrogate		%Recovery	Qualifier	Limits					
1-Chlorooctane		90		70 - 130					
o-Terphenyl		93		70 - 130					

Lab Sample ID: 880-38169-A-1-F MS
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71450

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.5	U *1	999	1202		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)	<50.5	U	999	900.0		mg/Kg		88	70 - 130
		MS	MS						
Surrogate		%Recovery	Qualifier	Limits					
1-Chlorooctane		114		70 - 130					
o-Terphenyl		83		70 - 130					

Lab Sample ID: 880-38169-A-1-G MSD
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71450

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	<50.5	U *1	999	1248		mg/Kg		122	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.5	U	999	1031		mg/Kg		101	70 - 130	14	20
		MSD	MSD								
Surrogate		%Recovery	Qualifier	Limits							
1-Chlorooctane		123		70 - 130							

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

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

Lab Sample ID: 880-38169-A-1-G MSD
Matrix: Solid
Analysis Batch: 71766

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 71450

Surrogate	MSD %Recovery	MSD Qualifier	Limits
<i>o</i> -Terphenyl	95		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-71307/1-A
Matrix: Solid
Analysis Batch: 71295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71307

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0	mg/Kg		01/22/24 07:00	01/22/24 07:17	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0	mg/Kg		01/22/24 07:00	01/22/24 07:17	1
Oil Range Organics (Over C28-C36) - RA2	<50.0	U	50.0	mg/Kg		01/22/24 07:00	01/22/24 07:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane - RA2	82		70 - 130	01/22/24 07:00	01/22/24 07:17	1
<i>o</i> -Terphenyl - RA2	85		70 - 130	01/22/24 07:00	01/22/24 07:17	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71219/1-A
Matrix: Solid
Analysis Batch: 71364

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/22/24 18:57	1

Lab Sample ID: LCS 880-71219/2-A
Matrix: Solid
Analysis Batch: 71364

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	269.5		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-71219/3-A
Matrix: Solid
Analysis Batch: 71364

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	267.9		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 890-5981-1 MS
Matrix: Solid
Analysis Batch: 71364

Client Sample ID: SS 01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3130		1260	4489		mg/Kg		108	90 - 110

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-5981-1 MSD
Matrix: Solid
Analysis Batch: 71364

Client Sample ID: SS 01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3130		1260	4496		mg/Kg		108	90 - 110	0	20

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

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
 SDG: 03C2284002

GC VOA

Prep Batch: 71537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-1	SS 01	Total/NA	Solid	5035	
890-5981-2	SS 02	Total/NA	Solid	5035	
890-5981-3	SS 03	Total/NA	Solid	5035	
890-5981-4	SS 04	Total/NA	Solid	5035	
890-5981-5	SS 05	Total/NA	Solid	5035	
890-5981-6	SS 06	Total/NA	Solid	5035	
890-5981-7	SS 07	Total/NA	Solid	5035	
MB 880-71537/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71537/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71537/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5981-1 MS	SS 01	Total/NA	Solid	5035	
890-5981-1 MSD	SS 01	Total/NA	Solid	5035	

Analysis Batch: 71915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-1	SS 01	Total/NA	Solid	8021B	71537
890-5981-2	SS 02	Total/NA	Solid	8021B	71537
890-5981-3	SS 03	Total/NA	Solid	8021B	71537
890-5981-4	SS 04	Total/NA	Solid	8021B	71537
890-5981-5	SS 05	Total/NA	Solid	8021B	71537
890-5981-6	SS 06	Total/NA	Solid	8021B	71537
890-5981-7	SS 07	Total/NA	Solid	8021B	71537
MB 880-71537/5-A	Method Blank	Total/NA	Solid	8021B	71537
LCS 880-71537/1-A	Lab Control Sample	Total/NA	Solid	8021B	71537
LCSD 880-71537/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71537
890-5981-1 MS	SS 01	Total/NA	Solid	8021B	71537
890-5981-1 MSD	SS 01	Total/NA	Solid	8021B	71537

Analysis Batch: 72052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-1	SS 01	Total/NA	Solid	Total BTEX	
890-5981-2	SS 02	Total/NA	Solid	Total BTEX	
890-5981-3	SS 03	Total/NA	Solid	Total BTEX	
890-5981-4	SS 04	Total/NA	Solid	Total BTEX	
890-5981-5	SS 05	Total/NA	Solid	Total BTEX	
890-5981-6	SS 06	Total/NA	Solid	Total BTEX	
890-5981-7	SS 07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 71295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-5	SS 05	Total/NA	Solid	8015B NM	71307
890-5981-6	SS 06	Total/NA	Solid	8015B NM	71307
890-5981-7	SS 07	Total/NA	Solid	8015B NM	71307
MB 880-71307/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	71307
LCS 880-71307/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71307
LCSD 880-71307/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71307
880-38206-A-81-H MS	Matrix Spike	Total/NA	Solid	8015B NM	71307
880-38206-A-81-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	71307

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
 SDG: 03C2284002

GC Semi VOA

Prep Batch: 71307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-5	SS 05	Total/NA	Solid	8015NM Prep	
890-5981-6	SS 06	Total/NA	Solid	8015NM Prep	
890-5981-7	SS 07	Total/NA	Solid	8015NM Prep	
MB 880-71307/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71307/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71307/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-38206-A-81-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-38206-A-81-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-1	SS 01	Total/NA	Solid	8015 NM	
890-5981-2	SS 02	Total/NA	Solid	8015 NM	
890-5981-3	SS 03	Total/NA	Solid	8015 NM	
890-5981-4	SS 04	Total/NA	Solid	8015 NM	
890-5981-5	SS 05	Total/NA	Solid	8015 NM	
890-5981-6	SS 06	Total/NA	Solid	8015 NM	
890-5981-7	SS 07	Total/NA	Solid	8015 NM	

Prep Batch: 71450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-1	SS 01	Total/NA	Solid	8015NM Prep	
890-5981-2	SS 02	Total/NA	Solid	8015NM Prep	
890-5981-3	SS 03	Total/NA	Solid	8015NM Prep	
890-5981-4	SS 04	Total/NA	Solid	8015NM Prep	
MB 880-71450/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71450/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71450/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-38169-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-38169-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-1	SS 01	Total/NA	Solid	8015B NM	71450
890-5981-2	SS 02	Total/NA	Solid	8015B NM	71450
890-5981-3	SS 03	Total/NA	Solid	8015B NM	71450
890-5981-4	SS 04	Total/NA	Solid	8015B NM	71450
MB 880-71450/1-A	Method Blank	Total/NA	Solid	8015B NM	71450
LCS 880-71450/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71450
LCSD 880-71450/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71450
880-38169-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	71450
880-38169-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	71450

HPLC/IC

Leach Batch: 71219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-1	SS 01	Soluble	Solid	DI Leach	
890-5981-2	SS 02	Soluble	Solid	DI Leach	
890-5981-3	SS 03	Soluble	Solid	DI Leach	
890-5981-4	SS 04	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
 SDG: 03C2284002

HPLC/IC (Continued)

Leach Batch: 71219 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-5	SS 05	Soluble	Solid	DI Leach	
890-5981-6	SS 06	Soluble	Solid	DI Leach	
890-5981-7	SS 07	Soluble	Solid	DI Leach	
MB 880-71219/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71219/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71219/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5981-1 MS	SS 01	Soluble	Solid	DI Leach	
890-5981-1 MSD	SS 01	Soluble	Solid	DI Leach	

Analysis Batch: 71364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5981-1	SS 01	Soluble	Solid	300.0	71219
890-5981-2	SS 02	Soluble	Solid	300.0	71219
890-5981-3	SS 03	Soluble	Solid	300.0	71219
890-5981-4	SS 04	Soluble	Solid	300.0	71219
890-5981-5	SS 05	Soluble	Solid	300.0	71219
890-5981-6	SS 06	Soluble	Solid	300.0	71219
890-5981-7	SS 07	Soluble	Solid	300.0	71219
MB 880-71219/1-A	Method Blank	Soluble	Solid	300.0	71219
LCS 880-71219/2-A	Lab Control Sample	Soluble	Solid	300.0	71219
LCSD 880-71219/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71219
890-5981-1 MS	SS 01	Soluble	Solid	300.0	71219
890-5981-1 MSD	SS 01	Soluble	Solid	300.0	71219

Lab Chronicle

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Client Sample ID: SS 01

Lab Sample ID: 890-5981-1

Date Collected: 01/17/24 11:47

Matrix: Solid

Date Received: 01/17/24 15:08

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	71537	01/24/24 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 11:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72052	01/30/24 11:08	SM	EET MID
Total/NA	Analysis	8015 NM		1			71438	01/29/24 22:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	71450	01/23/24 13:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 22:18	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71364	01/22/24 19:17	SMC	EET MID

Client Sample ID: SS 02

Lab Sample ID: 890-5981-2

Date Collected: 01/17/24 11:45

Matrix: Solid

Date Received: 01/17/24 15:08

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	71537	01/24/24 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 11:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72052	01/30/24 11:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			71438	01/29/24 22:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	71450	01/23/24 13:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 22:40	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71364	01/22/24 19:38	SMC	EET MID

Client Sample ID: SS 03

Lab Sample ID: 890-5981-3

Date Collected: 01/17/24 11:42

Matrix: Solid

Date Received: 01/17/24 15:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	71537	01/24/24 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 11:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72052	01/30/24 11:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			71438	01/29/24 23:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	71450	01/23/24 13:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 23:01	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	71364	01/23/24 12:17	SMC	EET MID

Client Sample ID: SS 04

Lab Sample ID: 890-5981-4

Date Collected: 01/17/24 11:26

Matrix: Solid

Date Received: 01/17/24 15:08

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	71537	01/24/24 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 12:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72052	01/30/24 12:09	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
 SDG: 03C2284002

Client Sample ID: SS 04
 Date Collected: 01/17/24 11:26
 Date Received: 01/17/24 15:08

Lab Sample ID: 890-5981-4
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			71438	01/29/24 23:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71450	01/23/24 13:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71766	01/29/24 23:23	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	71364	01/23/24 12:24	SMC	EET MID

Client Sample ID: SS 05
 Date Collected: 01/17/24 11:31
 Date Received: 01/17/24 15:08

Lab Sample ID: 890-5981-5
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	71537	01/24/24 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 12:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72052	01/30/24 12:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			71438	01/22/24 17:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	71307	01/22/24 09:16	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 17:06	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	71364	01/22/24 19:58	SMC	EET MID

Client Sample ID: SS 06
 Date Collected: 01/17/24 11:21
 Date Received: 01/17/24 15:08

Lab Sample ID: 890-5981-6
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	71537	01/24/24 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 12:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72052	01/30/24 12:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			71438	01/22/24 17:28	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	71307	01/22/24 09:16	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 17:28	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	71364	01/22/24 20:18	SMC	EET MID

Client Sample ID: SS 07
 Date Collected: 01/17/24 11:13
 Date Received: 01/17/24 15:08

Lab Sample ID: 890-5981-7
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	71537	01/24/24 15:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71915	01/30/24 13:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72052	01/30/24 13:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			71438	01/22/24 17:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	71307	01/22/24 09:16	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71295	01/22/24 17:51	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Client Sample ID: SS 07

Lab Sample ID: 890-5981-7

Date Collected: 01/17/24 11:13

Matrix: Solid

Date Received: 01/17/24 15:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	71219	01/19/24 14:36	SA	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	71364	01/22/24 20:25	SMC	EET MID

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

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	T104704400-23-26	06-30-24

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

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

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline

Job ID: 890-5981-1
SDG: 03C2284002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5981-1	SS 01	Solid	01/17/24 11:47	01/17/24 15:08	0.25'
890-5981-2	SS 02	Solid	01/17/24 11:45	01/17/24 15:08	0.25'
890-5981-3	SS 03	Solid	01/17/24 11:42	01/17/24 15:08	0.25'
890-5981-4	SS 04	Solid	01/17/24 11:26	01/17/24 15:08	0.25'
890-5981-5	SS 05	Solid	01/17/24 11:31	01/17/24 15:08	0.25'
890-5981-6	SS 06	Solid	01/17/24 11:21	01/17/24 15:08	0.25'
890-5981-7	SS 07	Solid	01/17/24 11:13	01/17/24 15:08	0.25'

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

Loc: 890
5981

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



690-5981 Chain of Custody

Chain of Custody

Houston, TX (281) 241-4200 Dallas, TX (214) 662-0300
 Midland, TX (432) 764-5400 San Antonio, TX (210) 568-3334
 EL PASO, TX (915) 585-5663 Lubbock, TX (806) 794-1066
 HOOPER, MN (578) 399-7590 Carlisle, MN (757) 696-3199

Environment Testing
 XenoCo



www.xenoco.com Page 1 of 1

Work Order Comments

Program: UST/PST RPP Inven/Fields RRC Superfund

State of Project: Level II Level III RST/UST TRAP Level IV

Deliverables: EDO ADAPT Other:

Project Manager: Tacoma Morrissey (fill in if different)

Company Name: Enso/Env LLC

Address: 601 N Maricopa Blvd

City, State ZIP: Midland, TX 79701

Phone: (371) 257-8307 Email: _____

Turn Around: 24 hours Rush

Project Number: QR 228 4002 DUE Date: July 22

Project Location: Acorn Shingles

Sampler's Name: _____ TAT starts the day received by the lab, if received by 4:00pm

Sample ID	SAMPLE RECEIPT				Date Sampled	Time Sampled	Depth	# of Cont	Preservative Codes	Sample Comments
	Sealed Blank	Yes/No	Thermometer C	Correction Factor						
5501	Yes	Yes	11.47	0.25	1			None - NO Dist Water: H ₂ O		
5502	Yes	Yes	11.45		1			Coat Cont HCL: HCl H ₂ SO ₄ : H ₂		
5503	Yes	Yes	11.42		1			H ₂ PO ₄ : HP H ₂ SO ₄ : H ₂		
5504	Yes	Yes	11.26		1			NaHSO ₄ : NABS Na ₂ S ₂ O ₈ : NASSO		
5505	Yes	Yes	11.31		1			Zn Acetate: MeOH, Zn NaOH: Ascorbic Acid: SAPC		
5506	Yes	Yes	11.21		1					
5507	Yes	Yes	11.13		1					

Total 2007/6010 260.8 / 6020: BRCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni X Se Ag SiO₂ Na Sr Ti Sn U V Zn

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

Relinquished by: (Signature) Burns Date/Time 11/17/14 15:03

Received by: (Signature) _____ Date/Time _____

Relinquished by: (Signature) _____ Date/Time _____

Received by: (Signature) _____ Date/Time _____

Enso/Env WPS022 Rev. 002.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5981-1

SDG Number: 03C2284002

Login Number: 5981

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5981-1

SDG Number: 03C2284002

Login Number: 5981

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/19/24 03:48 PM

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

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/29/2024 4:58:34 PM

JOB DESCRIPTION

Desert Eagle Frac Line (002)
03C2284002

JOB NUMBER

890-6020-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
1/29/2024 4:58:34 PM

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

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

Client: Ensolum
Project/Site: Desert Eagle Frac Line (002)

Laboratory Job ID: 890-6020-1
SDG: 03C2284002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	21
Lab Chronicle	24
Certification Summary	27
Method Summary	28
Sample Summary	29
Chain of Custody	30
Receipt Checklists	32

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
SDG: 03C2284002

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (002)

Job ID: 890-6020-1

Job ID: 890-6020-1

Eurofins Carlsbad

Job Narrative 890-6020-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/23/2024 4:45 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 1.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-6020-1), SS02 (890-6020-2), SS02 (890-6020-3), SS03 (890-6020-4), SS04 (890-6020-5), SS05 (890-6020-6), SS05 (890-6020-7), SS06 (890-6020-8) and SS07 (890-6020-9).

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-71562 recovered above the upper control limit for <AffectedAnalytes>. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-71562/33).

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-71516 and analytical batch 880-71562 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: SS06 (890-6020-8). 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: (CCV 880-71559/20). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS05 (890-6020-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-71535 and analytical batch 880-71621 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS01

Lab Sample ID: 890-6020-1

Date Collected: 01/23/24 11:39

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/25/24 13:01	01/25/24 20:37	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/25/24 13:01	01/25/24 20:37	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/25/24 13:01	01/25/24 20:37	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/25/24 13:01	01/25/24 20:37	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/25/24 13:01	01/25/24 20:37	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/25/24 13:01	01/25/24 20:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	01/25/24 13:01	01/25/24 20:37	1
1,4-Difluorobenzene (Surr)	116		70 - 130	01/25/24 13:01	01/25/24 20:37	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/25/24 20:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/26/24 09:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		01/25/24 16:32	01/26/24 09:44	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/25/24 16:32	01/26/24 09:44	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/25/24 16:32	01/26/24 09:44	1
Total TPH	<50.5	U	50.5		mg/Kg		01/25/24 16:32	01/26/24 09:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	01/25/24 16:32	01/26/24 09:44	1
o-Terphenyl	122		70 - 130	01/25/24 16:32	01/26/24 09:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	523	F1	4.97		mg/Kg			01/25/24 18:57	1

Client Sample ID: SS02

Lab Sample ID: 890-6020-2

Date Collected: 01/23/24 11:55

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 20:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 20:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 20:58	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/25/24 13:01	01/25/24 20:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 20:58	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/25/24 13:01	01/25/24 20:58	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS02

Lab Sample ID: 890-6020-2

Date Collected: 01/23/24 11:55

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	01/25/24 13:01	01/25/24 20:58	1
1,4-Difluorobenzene (Surr)	112		70 - 130	01/25/24 13:01	01/25/24 20:58	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/25/24 20:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/26/24 10:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		01/25/24 16:32	01/26/24 10:50	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/25/24 16:32	01/26/24 10:50	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/25/24 16:32	01/26/24 10:50	1
Total TPH	<49.8	U	49.8		mg/Kg		01/25/24 16:32	01/26/24 10:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	01/25/24 16:32	01/26/24 10:50	1
o-Terphenyl	122		70 - 130	01/25/24 16:32	01/26/24 10:50	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	514		4.98		mg/Kg			01/25/24 19:18	1

Client Sample ID: SS02

Lab Sample ID: 890-6020-3

Date Collected: 01/23/24 11:57

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/25/24 13:01	01/25/24 21:18	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/25/24 13:01	01/25/24 21:18	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/25/24 13:01	01/25/24 21:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/25/24 13:01	01/25/24 21:18	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/25/24 13:01	01/25/24 21:18	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/25/24 13:01	01/25/24 21:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	01/25/24 13:01	01/25/24 21:18	1
1,4-Difluorobenzene (Surr)	111		70 - 130	01/25/24 13:01	01/25/24 21:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/25/24 21:18	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS02

Lab Sample ID: 890-6020-3

Date Collected: 01/23/24 11:57

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			01/26/24 11:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		01/25/24 16:32	01/26/24 11:12	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/25/24 16:32	01/26/24 11:12	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/25/24 16:32	01/26/24 11:12	1
Total TPH	<49.6	U	49.6		mg/Kg		01/25/24 16:32	01/26/24 11:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	01/25/24 16:32	01/26/24 11:12	1
o-Terphenyl	125		70 - 130	01/25/24 16:32	01/26/24 11:12	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95.9		4.96		mg/Kg			01/25/24 19:24	1

Client Sample ID: SS03

Lab Sample ID: 890-6020-4

Date Collected: 01/23/24 12:55

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/24/24 13:01	01/25/24 21:38	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/24/24 13:01	01/25/24 21:38	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/24/24 13:01	01/25/24 21:38	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/24/24 13:01	01/25/24 21:38	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/24/24 13:01	01/25/24 21:38	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/24/24 13:01	01/25/24 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	01/24/24 13:01	01/25/24 21:38	1
1,4-Difluorobenzene (Surr)	114		70 - 130	01/24/24 13:01	01/25/24 21:38	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/25/24 21:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			01/26/24 11:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		01/25/24 16:32	01/26/24 11:34	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		01/25/24 16:32	01/26/24 11:34	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		01/25/24 16:32	01/26/24 11:34	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS03

Lab Sample ID: 890-6020-4

Date Collected: 01/23/24 12:55

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg		01/25/24 16:32	01/26/24 11:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				01/25/24 16:32	01/26/24 11:34	1
o-Terphenyl	120		70 - 130				01/25/24 16:32	01/26/24 11:34	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	367		5.02		mg/Kg			01/25/24 19:31	1

Client Sample ID: SS04

Lab Sample ID: 890-6020-5

Date Collected: 01/23/24 13:32

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 21:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 21:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 21:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/25/24 13:01	01/25/24 21:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 21:59	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/25/24 13:01	01/25/24 21:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130				01/25/24 13:01	01/25/24 21:59	1
1,4-Difluorobenzene (Surr)	112		70 - 130				01/25/24 13:01	01/25/24 21:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/25/24 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			01/26/24 11:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		01/25/24 16:32	01/26/24 11:56	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		01/25/24 16:32	01/26/24 11:56	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		01/25/24 16:32	01/26/24 11:56	1
Total TPH	<50.2	U	50.2		mg/Kg		01/25/24 16:32	01/26/24 11:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				01/25/24 16:32	01/26/24 11:56	1
o-Terphenyl	124		70 - 130				01/25/24 16:32	01/26/24 11:56	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS04

Lab Sample ID: 890-6020-5

Date Collected: 01/23/24 13:32
 Date Received: 01/23/24 16:45
 Sample Depth: 1'

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.7		5.03		mg/Kg			01/25/24 19:38	1

Client Sample ID: SS05

Lab Sample ID: 890-6020-6

Date Collected: 01/23/24 13:55
 Date Received: 01/23/24 16:45
 Sample Depth: 1'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 22:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 22:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 22:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/25/24 13:01	01/25/24 22:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/25/24 13:01	01/25/24 22:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/25/24 13:01	01/25/24 22:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130				01/25/24 13:01	01/25/24 22:19	1
1,4-Difluorobenzene (Surr)	115		70 - 130				01/25/24 13:01	01/25/24 22:19	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			01/25/24 22:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			01/26/24 12:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		01/25/24 16:32	01/26/24 12:18	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		01/25/24 16:32	01/26/24 12:18	1
Oll Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		01/25/24 16:32	01/26/24 12:18	1
Total TPH	<50.4	U	50.4		mg/Kg		01/25/24 16:32	01/26/24 12:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				01/25/24 16:32	01/26/24 12:18	1
o-Terphenyl	133	S1+	70 - 130				01/25/24 16:32	01/26/24 12:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	362		5.00		mg/Kg			01/25/24 20:19	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS05

Lab Sample ID: 890-6020-7

Date Collected: 01/23/24 13:57

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/25/24 13:01	01/25/24 22:40	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/25/24 13:01	01/25/24 22:40	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/25/24 13:01	01/25/24 22:40	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/25/24 13:01	01/25/24 22:40	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/25/24 13:01	01/25/24 22:40	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/25/24 13:01	01/25/24 22:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	01/25/24 13:01	01/25/24 22:40	1
1,4-Difluorobenzene (Surr)	110		70 - 130	01/25/24 13:01	01/25/24 22:40	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/25/24 22:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			01/26/24 12:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		01/25/24 16:32	01/26/24 12:40	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		01/25/24 16:32	01/26/24 12:40	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		01/25/24 16:32	01/26/24 12:40	1
Total TPH	<50.5	U	50.5		mg/Kg		01/25/24 16:32	01/26/24 12:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	01/25/24 16:32	01/26/24 12:40	1
o-Terphenyl	120		70 - 130	01/25/24 16:32	01/26/24 12:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.9		5.01		mg/Kg			01/25/24 20:26	1

Client Sample ID: SS06

Lab Sample ID: 890-6020-8

Date Collected: 01/23/24 14:10

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/25/24 13:01	01/25/24 23:00	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 13:01	01/25/24 23:00	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/25/24 13:01	01/25/24 23:00	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/25/24 13:01	01/25/24 23:00	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/25/24 13:01	01/25/24 23:00	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/25/24 13:01	01/25/24 23:00	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS06

Lab Sample ID: 890-6020-8

Date Collected: 01/23/24 14:10

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	01/25/24 13:01	01/25/24 23:00	1
1,4-Difluorobenzene (Surr)	116		70 - 130	01/25/24 13:01	01/25/24 23:00	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/25/24 23:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/26/24 13:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		01/25/24 16:32	01/26/24 13:04	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/25/24 16:32	01/26/24 13:04	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/25/24 16:32	01/26/24 13:04	1
Total TPH	<49.7	U	49.7		mg/Kg		01/25/24 16:32	01/26/24 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	01/25/24 16:32	01/26/24 13:04	1
o-Terphenyl	124		70 - 130	01/25/24 16:32	01/26/24 13:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	424		5.04		mg/Kg			01/25/24 20:33	1

Client Sample ID: SS07

Lab Sample ID: 890-6020-9

Date Collected: 01/23/24 14:41

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/25/24 14:04	01/26/24 02:03	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/25/24 14:04	01/26/24 02:03	1
Ethylbenzene	<0.00201	U **	0.00201		mg/Kg		01/25/24 14:04	01/26/24 02:03	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402		mg/Kg		01/25/24 14:04	01/26/24 02:03	1
o-Xylene	<0.00201	U **	0.00201		mg/Kg		01/25/24 14:04	01/26/24 02:03	1
Xylenes, Total	<0.00402	U **	0.00402		mg/Kg		01/25/24 14:04	01/26/24 02:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	01/25/24 14:04	01/26/24 02:03	1
1,4-Difluorobenzene (Surr)	75		70 - 130	01/25/24 14:04	01/26/24 02:03	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/26/24 02:03	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS07

Lab Sample ID: 890-6020-9

Date Collected: 01/23/24 14:41

Matrix: Solid

Date Received: 01/23/24 16:45

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/26/24 13:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		01/25/24 16:32	01/26/24 13:29	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/25/24 16:32	01/26/24 13:29	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/25/24 16:32	01/26/24 13:29	1
Total TPH	<49.8	U	49.8		mg/Kg		01/25/24 16:32	01/26/24 13:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	01/25/24 16:32	01/26/24 13:29	1
o-Terphenyl	123		70 - 130	01/25/24 16:32	01/26/24 13:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	253		4.99		mg/Kg			01/25/24 20:39	1

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

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)
880-38325-A-1-E MS	Matrix Spike	122	107
880-38325-A-1-F MSD	Matrix Spike Duplicate	110	107
880-38380-A-4-A MS	Matrix Spike	116	95
880-38380-A-4-B MSD	Matrix Spike Duplicate	112	125
890-6020-1	SS01	121	116
890-6020-2	SS02	119	112
890-6020-3	SS02	113	111
890-6020-4	SS03	116	114
890-6020-5	SS04	130	112
890-6020-6	SS05	132 S1+	115
890-6020-7	SS05	121	110
890-6020-8	SS06	133 S1+	116
890-6020-9	SS07	91	75
LCS 880-71516/1-A	Lab Control Sample	101	87
LCS 880-71517/1-A	Lab Control Sample	118	113
LCSD 880-71516/2-A	Lab Control Sample Dup	98	95
LCSD 880-71517/2-A	Lab Control Sample Dup	114	110
MB 880-71461/5-A	Method Blank	74	93
MB 880-71516/5-A	Method Blank	134 S1+	131 S1+
MB 880-71517/5-A	Method Blank	74	87

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-6020-1	SS01	101	122
890-6020-1 MS	SS01	116	119
890-6020-1 MSD	SS01	114	117
890-6020-2	SS02	99	122
890-6020-3	SS02	103	125
890-6020-4	SS03	101	120
890-6020-5	SS04	99	124
890-6020-6	SS05	107	133 S1+
890-6020-7	SS05	100	120
890-6020-8	SS06	104	124
890-6020-9	SS07	105	123
LCS 880-71622/2-A	Lab Control Sample	86	109
LCSD 880-71622/3-A	Lab Control Sample Dup	75	92
MB 880-71622/1-A	Method Blank	108	129

Surrogate Legend

1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-71461/5-A
 Matrix: Solid
 Analysis Batch: 71559

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 71461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/23/24 15:23	01/25/24 11:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/23/24 15:23	01/25/24 11:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/23/24 15:23	01/25/24 11:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/23/24 15:23	01/25/24 11:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/23/24 15:23	01/25/24 11:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/23/24 15:23	01/25/24 11:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	01/23/24 15:23	01/25/24 11:40	1
1,4-Difluorobenzene (Surr)	93		70 - 130	01/23/24 15:23	01/25/24 11:40	1

Lab Sample ID: MB 880-71516/5-A
 Matrix: Solid
 Analysis Batch: 71562

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 71516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/24 13:01	01/25/24 13:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/24 13:01	01/25/24 13:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/24 13:01	01/25/24 13:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/24 13:01	01/25/24 13:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/24 13:01	01/25/24 13:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/24 13:01	01/25/24 13:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130	01/24/24 13:01	01/25/24 13:31	1
1,4-Difluorobenzene (Surr)	131	S1+	70 - 130	01/24/24 13:01	01/25/24 13:31	1

Lab Sample ID: LCS 880-71516/1-A
 Matrix: Solid
 Analysis Batch: 71562

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 71516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1156		mg/Kg		116	70 - 130
Toluene	0.100	0.09267		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.1061		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2378		mg/Kg		119	70 - 130
o-Xylene	0.100	0.1196		mg/Kg		120	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: LCSD 880-71516/2-A
 Matrix: Solid
 Analysis Batch: 71562

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 71516

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1221		mg/Kg		122	70 - 130	5	35

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

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

Lab Sample ID: LCSD 880-71516/2-A
 Matrix: Solid
 Analysis Batch: 71562

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 71516

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.1022		mg/Kg		102	70 - 130	10		35
Ethylbenzene	0.100	0.1048		mg/Kg		105	70 - 130	1		35
m-Xylene & p-Xylene	0.200	0.2418		mg/Kg		121	70 - 130	2		35
o-Xylene	0.100	0.1208		mg/Kg		121	70 - 130	1		35

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

Lab Sample ID: 880-38325-A-1-E MS
 Matrix: Solid
 Analysis Batch: 71562

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 71516

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Benzene	<0.00198	U	0.100	0.1224		mg/Kg		122	70 - 130			
Toluene	<0.00198	U	0.100	0.1070		mg/Kg		106	70 - 130			
Ethylbenzene	<0.00198	U	0.100	0.1071		mg/Kg		107	70 - 130			
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2524		mg/Kg		126	70 - 130			
o-Xylene	<0.00198	U	0.100	0.1263		mg/Kg		125	70 - 130			

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

Lab Sample ID: 880-38325-A-1-F MSD
 Matrix: Solid
 Analysis Batch: 71562

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 71516

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Benzene	<0.00198	U	0.101	0.1283		mg/Kg		127	70 - 130	5		35
Toluene	<0.00198	U	0.101	0.1014		mg/Kg		100	70 - 130	5		35
Ethylbenzene	<0.00198	U	0.101	0.1015		mg/Kg		101	70 - 130	5		35
m-Xylene & p-Xylene	<0.00396	U	0.202	0.2246		mg/Kg		111	70 - 130	12		35
o-Xylene	<0.00198	U	0.101	0.1130		mg/Kg		112	70 - 130	11		35

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

Lab Sample ID: MB 880-71517/5-A
 Matrix: Solid
 Analysis Batch: 71559

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 71517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg	01/24/24 14:04	01/26/24 00:20	1	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	01/24/24 14:04	01/26/24 00:20	1	
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg	01/24/24 14:04	01/26/24 00:20	1	

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

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

Lab Sample ID: MB 880-71517/5-A
Matrix: Solid
Analysis Batch: 71559

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 71517

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/24 14:04	01/26/24 00:20	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/24/24 14:04	01/26/24 00:20	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	74		70 - 130	01/24/24 14:04	01/26/24 00:20	1
1,4-Difluorobenzene (Surr)	87		70 - 130	01/24/24 14:04	01/26/24 00:20	1

Lab Sample ID: LCS 880-71517/1-A
Matrix: Solid
Analysis Batch: 71559

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 71517

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	0.100	0.1218		mg/Kg		122	70 - 130
Toluene	0.100	0.1126		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1341	*+	mg/Kg		134	70 - 130
m-Xylene & p-Xylene	0.200	0.2659	*+	mg/Kg		133	70 - 130
o-Xylene	0.100	0.1481	*+	mg/Kg		148	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: LCSD 880-71517/2-A
Matrix: Solid
Analysis Batch: 71559

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 71517

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
		Result	Qualifier						
Benzene	0.100	0.1153		mg/Kg		115	70 - 130	5	35
Toluene	0.100	0.1052		mg/Kg		105	70 - 130	7	35
Ethylbenzene	0.100	0.1168		mg/Kg		117	70 - 130	14	35
m-Xylene & p-Xylene	0.200	0.2334		mg/Kg		117	70 - 130	13	35
o-Xylene	0.100	0.1213		mg/Kg		121	70 - 130	20	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 880-38380-A-4-A MS
Matrix: Solid
Analysis Batch: 71559

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 71517

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Benzene	<0.00201	U	0.0996	0.09654		mg/Kg		97	70 - 130
Toluene	<0.00201	U	0.0996	0.08790		mg/Kg		88	70 - 130
Ethylbenzene	<0.00201	U *	0.0996	0.09146		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	<0.00402	U *	0.199	0.1768		mg/Kg		89	70 - 130
o-Xylene	<0.00201	U *	0.0996	0.08824		mg/Kg		89	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

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

Lab Sample ID: 880-38380-A-4-A MS
 Matrix: Solid
 Analysis Batch: 71559

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 71517

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

Lab Sample ID: 880-38380-A-4-B MSD
 Matrix: Solid
 Analysis Batch: 71559

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 71517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0994	0.1087		mg/Kg		109	70 - 130	12	35
Toluene	<0.00201	U	0.0994	0.09197		mg/Kg		92	70 - 130	5	35
Ethylbenzene	<0.00201	U *	0.0994	0.09820		mg/Kg		99	70 - 130	7	35
m-Xylene & p-Xylene	<0.00402	U *	0.199	0.1906		mg/Kg		96	70 - 130	8	35
o-Xylene	<0.00201	U *	0.0994	0.09673		mg/Kg		97	70 - 130	9	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	125		70 - 130

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

Lab Sample ID: MB 880-71622/1-A
 Matrix: Solid
 Analysis Batch: 71655

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 71622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/25/24 16:31	01/26/24 07:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/25/24 16:31	01/26/24 07:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/25/24 16:31	01/26/24 07:06	1
Total TPH	<50.0	U	50.0		mg/Kg		01/25/24 16:31	01/26/24 07:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	01/25/24 16:31	01/26/24 07:06	1
o-Terphenyl	129		70 - 130	01/25/24 16:31	01/26/24 07:06	1

Lab Sample ID: LCS 880-71622/2-A
 Matrix: Solid
 Analysis Batch: 71655

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 71622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	928.7		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	932.5		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	109		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

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

Lab Sample ID: LCSD 880-71622/3-A
 Matrix: Solid
 Analysis Batch: 71655

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 71622

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit	
										RPD
Gasoline Range Organics (GRO)-C6-C10	1000	878.9		mg/Kg		88	70 - 130	6	20	
Diesel Range Organics (Over C10-C28)	1000	863.5		mg/Kg		86	70 - 130	8	20	
		LCSD	LCSD							
Surrogate		%Recovery	Qualifier	Limits						
1-Chlorooctane		75		70 - 130						
o-Terphenyl		92		70 - 130						

Lab Sample ID: 890-6020-1 MS
 Matrix: Solid
 Analysis Batch: 71655

Client Sample ID: SS01
 Prep Type: Total/NA
 Prep Batch: 71622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
										RPD
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	1010	929.4		mg/Kg		88	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.5	U	1010	1269		mg/Kg		124	70 - 130	
		MS	MS							
Surrogate		%Recovery	Qualifier	Limits						
1-Chlorooctane		116		70 - 130						
o-Terphenyl		119		70 - 130						

Lab Sample ID: 890-6020-1 MSD
 Matrix: Solid
 Analysis Batch: 71655

Client Sample ID: SS01
 Prep Type: Total/NA
 Prep Batch: 71622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	1010	960.4		mg/Kg		91	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<50.5	U	1010	1262		mg/Kg		123	70 - 130	1	20
		MSD	MSD								
Surrogate		%Recovery	Qualifier	Limits							
1-Chlorooctane		114		70 - 130							
o-Terphenyl		117		70 - 130							

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71535/1-A
 Matrix: Solid
 Analysis Batch: 71621

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/25/24 18:37	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-71535/2-A
 Matrix: Solid
 Analysis Batch: 71621

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254.3		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-71535/3-A
 Matrix: Solid
 Analysis Batch: 71621

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	251.9		mg/Kg		101	90 - 110	1	20

Lab Sample ID: 890-6020-1 MS
 Matrix: Solid
 Analysis Batch: 71621

Client Sample ID: SS01
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	523	F1	249	739.3	F1	mg/Kg		87	90 - 110

Lab Sample ID: 890-6020-1 MSD
 Matrix: Solid
 Analysis Batch: 71621

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	523	F1	249	758.5		mg/Kg		95	90 - 110	3	20

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

GC VOA

Prep Batch: 71461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-71461/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 71516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-1	SS01	Total/NA	Solid	5035	
890-6020-2	SS02	Total/NA	Solid	5035	
890-6020-3	SS02	Total/NA	Solid	5035	
890-6020-4	SS03	Total/NA	Solid	5035	
890-6020-5	SS04	Total/NA	Solid	5035	
890-6020-6	SS05	Total/NA	Solid	5035	
890-6020-7	SS05	Total/NA	Solid	5035	
890-6020-8	SS06	Total/NA	Solid	5035	
MB 880-71516/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71516/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71516/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-38325-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-38325-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 71517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-9	SS07	Total/NA	Solid	5035	
MB 880-71517/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71517/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71517/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-38380-A-4-A MS	Matrix Spike	Total/NA	Solid	5035	
880-38380-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 71559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-9	SS07	Total/NA	Solid	8021B	71517
MB 880-71461/5-A	Method Blank	Total/NA	Solid	8021B	71461
MB 880-71517/5-A	Method Blank	Total/NA	Solid	8021B	71517
LCS 880-71517/1-A	Lab Control Sample	Total/NA	Solid	8021B	71517
LCSD 880-71517/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71517
880-38380-A-4-A MS	Matrix Spike	Total/NA	Solid	8021B	71517
880-38380-A-4-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71517

Analysis Batch: 71562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-1	SS01	Total/NA	Solid	8021B	71516
890-6020-2	SS02	Total/NA	Solid	8021B	71516
890-6020-3	SS02	Total/NA	Solid	8021B	71516
890-6020-4	SS03	Total/NA	Solid	8021B	71516
890-6020-5	SS04	Total/NA	Solid	8021B	71516
890-6020-6	SS05	Total/NA	Solid	8021B	71516
890-6020-7	SS05	Total/NA	Solid	8021B	71516
890-6020-8	SS06	Total/NA	Solid	8021B	71516
MB 880-71516/5-A	Method Blank	Total/NA	Solid	8021B	71516
LCS 880-71516/1-A	Lab Control Sample	Total/NA	Solid	8021B	71516
LCSD 880-71516/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71516
880-38325-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	71516

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

GC VOA (Continued)

Analysis Batch: 71562 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38325-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71516

Analysis Batch: 71712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-1	SS01	Total/NA	Solid	Total BTEX	
890-6020-2	SS02	Total/NA	Solid	Total BTEX	
890-6020-3	SS02	Total/NA	Solid	Total BTEX	
890-6020-4	SS03	Total/NA	Solid	Total BTEX	
890-6020-5	SS04	Total/NA	Solid	Total BTEX	
890-6020-6	SS05	Total/NA	Solid	Total BTEX	
890-6020-7	SS05	Total/NA	Solid	Total BTEX	
890-6020-8	SS06	Total/NA	Solid	Total BTEX	
890-6020-9	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 71622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-1	SS01	Total/NA	Solid	8015NM Prep	
890-6020-2	SS02	Total/NA	Solid	8015NM Prep	
890-6020-3	SS02	Total/NA	Solid	8015NM Prep	
890-6020-4	SS03	Total/NA	Solid	8015NM Prep	
890-6020-5	SS04	Total/NA	Solid	8015NM Prep	
890-6020-6	SS05	Total/NA	Solid	8015NM Prep	
890-6020-7	SS05	Total/NA	Solid	8015NM Prep	
890-6020-8	SS06	Total/NA	Solid	8015NM Prep	
890-6020-9	SS07	Total/NA	Solid	8015NM Prep	
MB 880-71622/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71622/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6020-1 MS	SS01	Total/NA	Solid	8015NM Prep	
890-6020-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-1	SS01	Total/NA	Solid	8015B NM	71622
890-6020-2	SS02	Total/NA	Solid	8015B NM	71622
890-6020-3	SS02	Total/NA	Solid	8015B NM	71622
890-6020-4	SS03	Total/NA	Solid	8015B NM	71622
890-6020-5	SS04	Total/NA	Solid	8015B NM	71622
890-6020-6	SS05	Total/NA	Solid	8015B NM	71622
890-6020-7	SS05	Total/NA	Solid	8015B NM	71622
890-6020-8	SS06	Total/NA	Solid	8015B NM	71622
890-6020-9	SS07	Total/NA	Solid	8015B NM	71622
MB 880-71622/1-A	Method Blank	Total/NA	Solid	8015B NM	71622
LCS 880-71622/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71622
LCSD 880-71622/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71622
890-6020-1 MS	SS01	Total/NA	Solid	8015B NM	71622
890-6020-1 MSD	SS01	Total/NA	Solid	8015B NM	71622

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

GC Semi VOA

Analysis Batch: 71884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-1	SS01	Total/NA	Solid	8015 NM	
890-6020-2	SS02	Total/NA	Solid	8015 NM	
890-6020-3	SS02	Total/NA	Solid	8015 NM	
890-6020-4	SS03	Total/NA	Solid	8015 NM	
890-6020-5	SS04	Total/NA	Solid	8015 NM	
890-6020-6	SS05	Total/NA	Solid	8015 NM	
890-6020-7	SS05	Total/NA	Solid	8015 NM	
890-6020-8	SS06	Total/NA	Solid	8015 NM	
890-6020-9	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 71535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-1	SS01	Soluble	Solid	DI Leach	
890-6020-2	SS02	Soluble	Solid	DI Leach	
890-6020-3	SS02	Soluble	Solid	DI Leach	
890-6020-4	SS03	Soluble	Solid	DI Leach	
890-6020-5	SS04	Soluble	Solid	DI Leach	
890-6020-6	SS05	Soluble	Solid	DI Leach	
890-6020-7	SS05	Soluble	Solid	DI Leach	
890-6020-8	SS06	Soluble	Solid	DI Leach	
890-6020-9	SS07	Soluble	Solid	DI Leach	
MB 880-71535/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71535/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71535/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6020-1 MS	SS01	Soluble	Solid	DI Leach	
890-6020-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 71621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6020-1	SS01	Soluble	Solid	300.0	71535
890-6020-2	SS02	Soluble	Solid	300.0	71535
890-6020-3	SS02	Soluble	Solid	300.0	71535
890-6020-4	SS03	Soluble	Solid	300.0	71535
890-6020-5	SS04	Soluble	Solid	300.0	71535
890-6020-6	SS05	Soluble	Solid	300.0	71535
890-6020-7	SS05	Soluble	Solid	300.0	71535
890-6020-8	SS06	Soluble	Solid	300.0	71535
890-6020-9	SS07	Soluble	Solid	300.0	71535
MB 880-71535/1-A	Method Blank	Soluble	Solid	300.0	71535
LCS 880-71535/2-A	Lab Control Sample	Soluble	Solid	300.0	71535
LCSD 880-71535/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71535
890-6020-1 MS	SS01	Soluble	Solid	300.0	71535
890-6020-1 MSD	SS01	Soluble	Solid	300.0	71535

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS01

Lab Sample ID: 890-6020-1

Date Collected: 01/23/24 11:39

Matrix: Solid

Date Received: 01/23/24 16:45

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	71516	01/25/24 13:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71562	01/25/24 20:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/25/24 20:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			71884	01/26/24 09:44	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 09:44	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 18:57	CH	EET MID

Client Sample ID: SS02

Lab Sample ID: 890-6020-2

Date Collected: 01/23/24 11:55

Matrix: Solid

Date Received: 01/23/24 16:45

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	71516	01/25/24 13:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71562	01/25/24 20:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/25/24 20:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			71884	01/26/24 10:50	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 10:50	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 19:18	CH	EET MID

Client Sample ID: SS02

Lab Sample ID: 890-6020-3

Date Collected: 01/23/24 11:57

Matrix: Solid

Date Received: 01/23/24 16:45

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	71516	01/25/24 13:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71562	01/25/24 21:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/25/24 21:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			71884	01/26/24 11:12	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 11:12	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 19:24	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-6020-4

Date Collected: 01/23/24 12:55

Matrix: Solid

Date Received: 01/23/24 16:45

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	71516	01/24/24 13:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71562	01/25/24 21:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/25/24 21:38	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS03

Lab Sample ID: 890-6020-4

Date Collected: 01/23/24 12:55

Matrix: Solid

Date Received: 01/23/24 16:45

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			71884	01/26/24 11:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 11:34	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 19:31	CH	EET MID

Client Sample ID: SS04

Lab Sample ID: 890-6020-5

Date Collected: 01/23/24 13:32

Matrix: Solid

Date Received: 01/23/24 16:45

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	71516	01/25/24 13:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71562	01/25/24 21:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/25/24 21:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			71884	01/26/24 11:56	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 11:56	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 19:38	CH	EET MID

Client Sample ID: SS05

Lab Sample ID: 890-6020-6

Date Collected: 01/23/24 13:55

Matrix: Solid

Date Received: 01/23/24 16:45

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	71516	01/25/24 13:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71562	01/25/24 22:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/25/24 22:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			71884	01/26/24 12:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 12:18	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 20:19	CH	EET MID

Client Sample ID: SS05

Lab Sample ID: 890-6020-7

Date Collected: 01/23/24 13:57

Matrix: Solid

Date Received: 01/23/24 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	71516	01/25/24 13:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71562	01/25/24 22:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/25/24 22:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			71884	01/26/24 12:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 12:40	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
 SDG: 03C2284002

Client Sample ID: SS05

Lab Sample ID: 890-6020-7

Date Collected: 01/23/24 13:57

Matrix: Solid

Date Received: 01/23/24 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 20:26	CH	EET MID

Client Sample ID: SS06

Lab Sample ID: 890-6020-8

Date Collected: 01/23/24 14:10

Matrix: Solid

Date Received: 01/23/24 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	71516	01/25/24 13:01	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71562	01/25/24 23:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/25/24 23:00	AJ	EET MID
Total/NA	Analysis	8015 NM		1			71884	01/26/24 13:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 13:04	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 20:33	CH	EET MID

Client Sample ID: SS07

Lab Sample ID: 890-6020-9

Date Collected: 01/23/24 14:41

Matrix: Solid

Date Received: 01/23/24 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	71517	01/25/24 14:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71559	01/26/24 02:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71712	01/26/24 02:03	AJ	EET MID
Total/NA	Analysis	8015 NM		1			71884	01/26/24 13:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	71622	01/25/24 16:32	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71655	01/26/24 13:29	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71535	01/25/24 15:32	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	71621	01/25/24 20:39	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
SDG: 03C2284002

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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
SDG: 03C2284002

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

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (002)

Job ID: 890-6020-1
SDG: 03C2284002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6020-1	SS01	Solid	01/23/24 11:39	01/23/24 16:45	1'
890-6020-2	SS02	Solid	01/23/24 11:55	01/23/24 16:45	1'
890-6020-3	SS02	Solid	01/23/24 11:57	01/23/24 16:45	2'
890-6020-4	SS03	Solid	01/23/24 12:55	01/23/24 16:45	1'
890-6020-5	SS04	Solid	01/23/24 13:32	01/23/24 16:45	1'
890-6020-6	SS05	Solid	01/23/24 13:55	01/23/24 16:45	1'
890-6020-7	SS05	Solid	01/23/24 13:57	01/23/24 16:45	2'
890-6020-8	SS06	Solid	01/23/24 14:10	01/23/24 16:45	1'
890-6020-9	SS07	Solid	01/23/24 14:41	01/23/24 16:45	1'

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

Loc: 890
6020

Chain of Custody

Houston, TX (281) 240-4230, Dallas, TX (214) 502-0000
Midland, TX (432) 704-8460, San Antonio, TX (214) 509-3334
El Paso, TX (916) 686-3463, Lubbock, TX (806) 794-1288
Hobbs, NM (575) 382-7500, Cincinnati, OH (513) 685-3199
Little Rock, AR (501) 224-8020

Environment Testing

550-6020 Chain of Custody

Page 1 of 1

Work Order Comments

Program: UST/PST PRE Brownfields PRC Superfund

Status of Project: Reporting: Level II Level III PST/UST TRP Level IV

Deliverables: EDO ADAPT Other:

Project Manager: Taranna Morrison

Company Name: ENVIRON

Address: 3122 National Parks Hwy

City, State ZIP: Lubbock, NM 88300

Phone: 337-257-8307 Email: taranna@enviro.com

Bill to: (if different)

Company Name:

Address:

City, State ZIP:

Project Name: DOSECTHANE (see table) Turn Around

Project Number: 0362284002 Routine Rush

Project Location: 32.54279, -104.18049 Due Date: 24.1.1

Sampler's Name: MARCO SACKS YAT starts the day received by this lab, if received by 4:30pm

PO #:

Temp Blank: Yes No

Temp Blank: Yes No

Thermometer ID: 104007

Correction Factor: 0.3

Temperature Reading: 1.2

Corrected Temperature: 1.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	# of Comp	Parameters	
						Envl	Cont
5501	S	1/23/24	11:39	1'	6	✓	✓
5502	S	1/23/24	11:55	1'	6	✓	✓
5503	S	1/23/24	11:57	2'	6	✓	✓
5504	S	1/23/24	12:55	1'	6	✓	✓
5505	S	1/23/24	13:30	1'	6	✓	✓
5505	S	1/23/24	13:55	1'	6	✓	✓
5506	S	1/23/24	13:57	2'	6	✓	✓
5507	S	1/23/24	14:10	1'	6	✓	✓
5507	S	1/23/24	14:41	1'	6	✓	✓
TEMP BLANK							

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

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

Notice: Signature of this document and reimbursement of sampler 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) Marco Sacks Date/Time: 1/23/24 16:42 Received by: (Signature) _____ Date/Time: _____

ANALYSIS REQUEST

Preservative Codes	None: MD	DI Water: H ₂ O
	Coat: Cool	MeOH: Me
	HCL-HS	H ₂ SO ₄
	H ₂ SO ₄ : H ₂	NaOH: Na
	H ₂ PO ₄ : H ₂ P	
	NaHSO ₄ : NaHS	
	Na ₂ S ₂ O ₅ : NaSO ₃	
	Cr Ascorbic Acid: ZH	
	NaOH/Ascorbic Acid: SAPP	
	Sample Comments	

Printed Date: 01/23/2024 16:42

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



Environment Testing

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440 San Antonio, TX (210) 509-9334
El Paso, TX (915) 686-3443 Lubbock, TX (806) 794-1288
Hobbs, NM (575) 592-7550 Carlsbad, NM (575) 986-5189
Little Rock, AR (501) 224-5080

Chain of Custody

Work Order No: 6020

Page 1 of 1

Project Manager: Taloma Morrison Bill to: (if different)

Company Name: ENSOLVM, LLC Company Name:

Address: 3102 NATIONAL PARKS HWY Address:

City, State Zip: CARLSBAD, NM 88580 City, State Zip:

Phone: 337-257-8307 Email: TMORRISON@ENSOLVM.COM

Project Name: POST-Emerge Facility (2) Turn Around

Project Number: 03/2384002 Routine Rush

Project Location: 32.54279, -104.18049 Due Date: 24-4

Sampler's Name: MARCO SANCHEZ TAT starts the day received by the lab. If received by 4:30pm

PO #: _____

SAMPLE RECEIPT

Samples Received In tact: Yes No Wet Ice: Yes No

Cooler Custody Seals: Yes No Correction Factor: 1.0

Sample Custody Seals: Yes No Temperature Reading: 12

Total Containers: _____ Corrected Temperature: 10

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab Comp	# of Cont	Parameters		ANALYSIS REQUEST		Preservative Codes
							ABTEX	JPA	Chlorides		
5501	S	1/3/24	11:39	1'	G	1					
5502	S	1/3/24	11:55	1'	G	1					
5503	S	1/3/24	11:57	2'	G	1					
5504	S	1/3/24	12:55	1'	G	1					
5505	S	1/3/24	13:32	1'	G	1					
5505	S	1/3/24	13:55	1'	G	1					
5506	S	1/3/24	13:57	2'	G	1					
5506	S	1/3/24	14:10	1'	G	1					
5507	S	1/3/24	14:41	1'	G	1					
Temp Blank											

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

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245 / 7470 / 7471

Relinquished by: (Signature) MARCO S. Received by: (Signature) Abel Date/Time 1/3/24 16:45 Relinquished by: (Signature) LCVY Received by: (Signature) 1/25 Date/Time

890-6020 Chain of Custody

Note: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client. If such losses are due to circumstances beyond the control of Eurofins Xeno, a maximum charge of \$25.00 will be applied to each project and a charge of \$25 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Revised Date: 08/25/2020 Rev: 2010.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6020-1

SDG Number: 03C2284002

Login Number: 6020

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6020-1

SDG Number: 03C2284002

Login Number: 6020

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 01/25/24 02:48 PM

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

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/1/2024 12:46:18 PM

JOB DESCRIPTION

DESERT EAGLE FRACTION 002
03C2284002

JOB NUMBER

890-6039-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



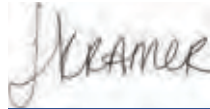
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/1/2024 12:46:18 PM

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

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Laboratory Job ID: 890-6039-1
SDG: 03C2284002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	10
QC Sample Results	11
QC Association Summary	16
Lab Chronicle	19
Certification Summary	21
Method Summary	22
Sample Summary	23
Chain of Custody	24
Receipt Checklists	26

Definitions/Glossary

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1

Job ID: 890-6039-1

Eurofins Carlsbad

Job Narrative 890-6039-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/25/2024 4:21 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 5.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS001 (890-6039-1), FS004 (890-6039-2), FS006 (890-6039-3) and FS008 (890-6039-4).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS006 (890-6039-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-71764 recovered under the lower control limit for Benzene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-71343 and analytical batch 880-71764 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-71764 recovered above the upper control limit for Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-71764/51).

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-71893 and analytical batch 880-71993 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS001 (890-6039-1) and FS006 (890-6039-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

Client Sample ID: FS001

Lab Sample ID: 890-6039-1

Date Collected: 01/25/24 11:36

Matrix: Solid

Date Received: 01/25/24 16:21

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/29/24 11:30	01/29/24 12:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/29/24 11:30	01/29/24 12:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/29/24 11:30	01/29/24 12:58	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/29/24 11:30	01/29/24 12:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/29/24 11:30	01/29/24 12:58	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/29/24 11:30	01/29/24 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	01/29/24 11:30	01/29/24 12:58	1
1,4-Difluorobenzene (Surr)	87		70 - 130	01/29/24 11:30	01/29/24 12:58	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/29/24 12:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			01/31/24 20:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		01/29/24 17:13	01/31/24 20:27	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		01/29/24 17:13	01/31/24 20:27	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		01/29/24 17:13	01/31/24 20:27	1
Total TPH	<50.3	U	50.3		mg/Kg		01/29/24 17:13	01/31/24 20:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130	01/29/24 17:13	01/31/24 20:27	1
o-Terphenyl	119		70 - 130	01/29/24 17:13	01/31/24 20:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	201		4.97		mg/Kg			01/30/24 10:17	1

Client Sample ID: FS004

Lab Sample ID: 890-6039-2

Date Collected: 01/25/24 12:08

Matrix: Solid

Date Received: 01/25/24 16:21

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/29/24 11:30	01/29/24 13:19	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/29/24 11:30	01/29/24 13:19	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/29/24 11:30	01/29/24 13:19	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		01/29/24 11:30	01/29/24 13:19	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/29/24 11:30	01/29/24 13:19	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		01/29/24 11:30	01/29/24 13:19	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

Client Sample ID: FS004

Lab Sample ID: 890-6039-2

Date Collected: 01/25/24 12:08

Matrix: Solid

Date Received: 01/25/24 16:21

Sample Depth: 0.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	01/29/24 11:30	01/29/24 13:19	1
1,4-Difluorobenzene (Surr)	86		70 - 130	01/29/24 11:30	01/29/24 13:19	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			01/29/24 13:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/31/24 21:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/29/24 17:13	01/31/24 21:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/29/24 17:13	01/31/24 21:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/29/24 17:13	01/31/24 21:29	1
Total TPH	<49.9	U	49.9		mg/Kg		01/29/24 17:13	01/31/24 21:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130	01/29/24 17:13	01/31/24 21:29	1
o-Terphenyl	100		70 - 130	01/29/24 17:13	01/31/24 21:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.7		4.96		mg/Kg			01/30/24 10:24	1

Client Sample ID: FS006

Lab Sample ID: 890-6039-3

Date Collected: 01/25/24 12:16

Matrix: Solid

Date Received: 01/25/24 16:21

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/29/24 11:30	01/29/24 13:39	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/29/24 11:30	01/29/24 13:39	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/29/24 11:30	01/29/24 13:39	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		01/29/24 11:30	01/29/24 13:39	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/29/24 11:30	01/29/24 13:39	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		01/29/24 11:30	01/29/24 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	01/29/24 11:30	01/29/24 13:39	1
1,4-Difluorobenzene (Surr)	64	S1-	70 - 130	01/29/24 11:30	01/29/24 13:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			01/29/24 13:39	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

Client Sample ID: FS006

Lab Sample ID: 890-6039-3

Date Collected: 01/25/24 12:16

Matrix: Solid

Date Received: 01/25/24 16:21

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/31/24 21:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		01/29/24 17:13	01/31/24 21:49	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/29/24 17:13	01/31/24 21:49	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/29/24 17:13	01/31/24 21:49	1
Total TPH	<49.7	U	49.7		mg/Kg		01/29/24 17:13	01/31/24 21:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130	01/29/24 17:13	01/31/24 21:49	1
o-Terphenyl	106		70 - 130	01/29/24 17:13	01/31/24 21:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.0		5.00		mg/Kg			01/30/24 10:30	1

Client Sample ID: FS008

Lab Sample ID: 890-6039-4

Date Collected: 01/25/24 12:26

Matrix: Solid

Date Received: 01/25/24 16:21

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/29/24 11:30	01/29/24 14:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/29/24 11:30	01/29/24 14:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/29/24 11:30	01/29/24 14:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/29/24 11:30	01/29/24 14:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/29/24 11:30	01/29/24 14:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/29/24 11:30	01/29/24 14:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	01/29/24 11:30	01/29/24 14:32	1
1,4-Difluorobenzene (Surr)	78		70 - 130	01/29/24 11:30	01/29/24 14:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/29/24 14:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			01/31/24 22:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		01/29/24 17:13	01/31/24 22:10	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		01/29/24 17:13	01/31/24 22:10	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		01/29/24 17:13	01/31/24 22:10	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

Client Sample ID: FS008

Lab Sample ID: 890-6039-4

Date Collected: 01/25/24 12:26

Matrix: Solid

Date Received: 01/25/24 16:21

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg		01/29/24 17:13	01/31/24 22:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130	01/29/24 17:13	01/31/24 22:10	1
o-Terphenyl	91		70 - 130	01/29/24 17:13	01/31/24 22:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	93.0		5.04		mg/Kg			01/30/24 08:59	1

Surrogate Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-38189-A-1-B MS	Matrix Spike	119	102
880-38189-A-1-C MSD	Matrix Spike Duplicate	118	99
890-6039-1	FS001	87	87
890-6039-2	FS004	84	86
890-6039-3	FS006	87	64 S1-
890-6039-4	FS008	81	78
LCS 880-71343/1-A	Lab Control Sample	118	102
LCSD 880-71343/2-A	Lab Control Sample Dup	128	106
MB 880-71343/5-A	Method Blank	71	84
MB 880-71690/5-A	Method Blank	76	79

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-6039-1	FS001	141 S1+	119
890-6039-1 MS	FS001	117	87
890-6039-1 MSD	FS001	130	93
890-6039-2	FS004	124	100
890-6039-3	FS006	132 S1+	106
890-6039-4	FS008	113	91
LCS 880-71893/2-A	Lab Control Sample	96	83
LCSD 880-71893/3-A	Lab Control Sample Dup	94	90
MB 880-71893/1-A	Method Blank	138 S1+	113

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-71343/5-A
 Matrix: Solid
 Analysis Batch: 71764

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 71343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/22/24 14:55	01/29/24 10:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/22/24 14:55	01/29/24 10:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	01/22/24 14:55	01/29/24 10:33	1
1,4-Difluorobenzene (Surr)	84		70 - 130	01/22/24 14:55	01/29/24 10:33	1

Lab Sample ID: LCS 880-71343/1-A
 Matrix: Solid
 Analysis Batch: 71764

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 71343

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1109		mg/Kg		111	70 - 130
Toluene	0.100	0.1084		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1235		mg/Kg		124	70 - 130
m-Xylene & p-Xylene	0.200	0.2589		mg/Kg		129	70 - 130
o-Xylene	0.100	0.1258		mg/Kg		126	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-71343/2-A
 Matrix: Solid
 Analysis Batch: 71764

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 71343

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.09840		mg/Kg		98	70 - 130	12	35
Toluene	0.100	0.1009		mg/Kg		101	70 - 130	7	35
Ethylbenzene	0.100	0.1248		mg/Kg		125	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2595		mg/Kg		130	70 - 130	0	35
o-Xylene	0.100	0.1260		mg/Kg		126	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-38189-A-1-B MS
 Matrix: Solid
 Analysis Batch: 71764

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 71343

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.0996	0.09967		mg/Kg		100	70 - 130
Toluene	<0.00198	U	0.0996	0.1048		mg/Kg		105	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

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

Lab Sample ID: 880-38189-A-1-B MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 71764

Prep Batch: 71343

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00198	U F1	0.0996	0.1245		mg/Kg		125	70 - 130
m-Xylene & p-Xylene	<0.00396	U F1	0.199	0.2478		mg/Kg		124	70 - 130
o-Xylene	<0.00198	U F1	0.0996	0.1177		mg/Kg		118	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-38189-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 71764

Prep Batch: 71343

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00198	U	0.100	0.1113		mg/Kg		111	70 - 130	11	35
Toluene	<0.00198	U	0.100	0.1202		mg/Kg		119	70 - 130	14	35
Ethylbenzene	<0.00198	U F1	0.100	0.1365	F1	mg/Kg		136	70 - 130	9	35
m-Xylene & p-Xylene	<0.00396	U F1	0.201	0.2816	F1	mg/Kg		140	70 - 130	13	35
o-Xylene	<0.00198	U F1	0.100	0.1336	F1	mg/Kg		133	70 - 130	13	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: MB 880-71690/5-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 71764

Prep Batch: 71690

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:23	01/28/24 23:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:23	01/28/24 23:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:23	01/28/24 23:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/26/24 11:23	01/28/24 23:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/26/24 11:23	01/28/24 23:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/26/24 11:23	01/28/24 23:01	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	76		70 - 130	01/26/24 11:23	01/28/24 23:01	1
1,4-Difluorobenzene (Surr)	79		70 - 130	01/26/24 11:23	01/28/24 23:01	1

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

Lab Sample ID: MB 880-71893/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 71993

Prep Batch: 71893

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/29/24 17:13	01/31/24 19:25	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

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

Lab Sample ID: MB 880-71893/1-A
 Matrix: Solid
 Analysis Batch: 71993

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 71893

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/29/24 17:13	01/31/24 19:25	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/29/24 17:13	01/31/24 19:25	1
Total TPH	<50.0	U	50.0		mg/Kg		01/29/24 17:13	01/31/24 19:25	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	138	S1+	70 - 130	01/29/24 17:13	01/31/24 19:25	1
o-Terphenyl	113		70 - 130	01/29/24 17:13	01/31/24 19:25	1

Lab Sample ID: LCS 880-71893/2-A
 Matrix: Solid
 Analysis Batch: 71993

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 71893

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	1001		mg/Kg		100	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	96		70 - 130
o-Terphenyl	83		70 - 130

Lab Sample ID: LCSD 880-71893/3-A
 Matrix: Solid
 Analysis Batch: 71993

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 71893

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	892.3		mg/Kg		89	70 - 130	11	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	94		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 890-6039-1 MS
 Matrix: Solid
 Analysis Batch: 71993

Client Sample ID: FS001
 Prep Type: Total/NA
 Prep Batch: 71893

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	<50.3	U	1010	1062		mg/Kg		103	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	117		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

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

Lab Sample ID: 890-6039-1 MS
 Matrix: Solid
 Analysis Batch: 71993

Client Sample ID: FS001
 Prep Type: Total/NA
 Prep Batch: 71893

Surrogate	%Recovery	MS MS Qualifier	Limits
<i>o</i> -Terphenyl	87		70 - 130

Lab Sample ID: 890-6039-1 MSD
 Matrix: Solid
 Analysis Batch: 71993

Client Sample ID: FS001
 Prep Type: Total/NA
 Prep Batch: 71893

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	1010	942.9		mg/Kg		91	70 - 130	0	20	
Diesel Range Organics (Over C10-C28)	<50.3	U	1010	1160		mg/Kg		113	70 - 130	9	20	

Surrogate	%Recovery	MSD MSD Qualifier	Limits
1-Chlorooctane	130		70 - 130
<i>o</i> -Terphenyl	93		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71740/1-A
 Matrix: Solid
 Analysis Batch: 71807

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/29/24 12:43	1

Lab Sample ID: LCS 880-71740/2-A
 Matrix: Solid
 Analysis Batch: 71807

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	238.2		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-71740/3-A
 Matrix: Solid
 Analysis Batch: 71807

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	250	240.0		mg/Kg		96	90 - 110	1	20

Lab Sample ID: 880-38557-A-11-B MS
 Matrix: Solid
 Analysis Batch: 71807

Client Sample ID: Matrix Spike
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1360		1250	2691		mg/Kg		106	90 - 110

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-38557-A-11-C MSD
 Matrix: Solid
 Analysis Batch: 71807

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1360		1250	2662		mg/Kg		104	90 - 110	1	20

Lab Sample ID: MB 880-71774/1-A
 Matrix: Solid
 Analysis Batch: 71819

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/29/24 19:01	1

Lab Sample ID: LCS 880-71774/2-A
 Matrix: Solid
 Analysis Batch: 71819

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.5		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-71774/3-A
 Matrix: Solid
 Analysis Batch: 71819

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	256.8		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 890-6037-A-11-B MS
 Matrix: Solid
 Analysis Batch: 71819

Client Sample ID: Matrix Spike
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	34.6		252	287.6		mg/Kg		100	90 - 110

Lab Sample ID: 890-6037-A-11-C MSD
 Matrix: Solid
 Analysis Batch: 71819

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	34.6		252	288.1		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

GC VOA

Prep Batch: 71343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-1	FS001	Total/NA	Solid	5035	
890-6039-2	FS004	Total/NA	Solid	5035	
890-6039-3	FS006	Total/NA	Solid	5035	
890-6039-4	FS008	Total/NA	Solid	5035	
MB 880-71343/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-71343/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-71343/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-38189-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-38189-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 71690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-71690/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 71764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-1	FS001	Total/NA	Solid	8021B	71343
890-6039-2	FS004	Total/NA	Solid	8021B	71343
890-6039-3	FS006	Total/NA	Solid	8021B	71343
890-6039-4	FS008	Total/NA	Solid	8021B	71343
MB 880-71343/5-A	Method Blank	Total/NA	Solid	8021B	71343
MB 880-71690/5-A	Method Blank	Total/NA	Solid	8021B	71690
LCS 880-71343/1-A	Lab Control Sample	Total/NA	Solid	8021B	71343
LCSD 880-71343/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	71343
880-38189-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	71343
880-38189-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	71343

Analysis Batch: 71903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-1	FS001	Total/NA	Solid	Total BTEX	
890-6039-2	FS004	Total/NA	Solid	Total BTEX	
890-6039-3	FS006	Total/NA	Solid	Total BTEX	
890-6039-4	FS008	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 71893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-1	FS001	Total/NA	Solid	8015NM Prep	
890-6039-2	FS004	Total/NA	Solid	8015NM Prep	
890-6039-3	FS006	Total/NA	Solid	8015NM Prep	
890-6039-4	FS008	Total/NA	Solid	8015NM Prep	
MB 880-71893/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-71893/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-71893/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6039-1 MS	FS001	Total/NA	Solid	8015NM Prep	
890-6039-1 MSD	FS001	Total/NA	Solid	8015NM Prep	

Analysis Batch: 71993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-1	FS001	Total/NA	Solid	8015B NM	71893

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

GC Semi VOA (Continued)

Analysis Batch: 71993 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-2	FS004	Total/NA	Solid	8015B NM	71893
890-6039-3	FS006	Total/NA	Solid	8015B NM	71893
890-6039-4	FS008	Total/NA	Solid	8015B NM	71893
MB 880-71893/1-A	Method Blank	Total/NA	Solid	8015B NM	71893
LCS 880-71893/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	71893
LCSD 880-71893/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	71893
890-6039-1 MS	FS001	Total/NA	Solid	8015B NM	71893
890-6039-1 MSD	FS001	Total/NA	Solid	8015B NM	71893

Analysis Batch: 72148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-1	FS001	Total/NA	Solid	8015 NM	
890-6039-2	FS004	Total/NA	Solid	8015 NM	
890-6039-3	FS006	Total/NA	Solid	8015 NM	
890-6039-4	FS008	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 71740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-4	FS008	Soluble	Solid	DI Leach	
MB 880-71740/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71740/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71740/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38557-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-38557-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 71774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-1	FS001	Soluble	Solid	DI Leach	
890-6039-2	FS004	Soluble	Solid	DI Leach	
890-6039-3	FS006	Soluble	Solid	DI Leach	
MB 880-71774/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71774/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71774/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6037-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-6037-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 71807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-4	FS008	Soluble	Solid	300.0	71740
MB 880-71740/1-A	Method Blank	Soluble	Solid	300.0	71740
LCS 880-71740/2-A	Lab Control Sample	Soluble	Solid	300.0	71740
LCSD 880-71740/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71740
880-38557-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	71740
880-38557-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	71740

Analysis Batch: 71819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-1	FS001	Soluble	Solid	300.0	71774
890-6039-2	FS004	Soluble	Solid	300.0	71774

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

HPLC/IC (Continued)

Analysis Batch: 71819 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6039-3	FS006	Soluble	Solid	300.0	71774
MB 880-71774/1-A	Method Blank	Soluble	Solid	300.0	71774
LCS 880-71774/2-A	Lab Control Sample	Soluble	Solid	300.0	71774
LCSD 880-71774/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71774
890-6037-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	71774
890-6037-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	71774

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

Lab Chronicle

Client: Ensolum
 Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
 SDG: 03C2284002

Client Sample ID: FS001

Lab Sample ID: 890-6039-1

Date Collected: 01/25/24 11:36

Matrix: Solid

Date Received: 01/25/24 16:21

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	71343	01/29/24 11:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 12:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71903	01/29/24 12:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			72148	01/31/24 20:27	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	71893	01/29/24 17:13	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 20:27	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71774	01/29/24 09:33	SA	EET MID
Soluble	Analysis	300.0		1			71819	01/30/24 10:17	CH	EET MID

Client Sample ID: FS004

Lab Sample ID: 890-6039-2

Date Collected: 01/25/24 12:08

Matrix: Solid

Date Received: 01/25/24 16:21

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	71343	01/29/24 11:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 13:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71903	01/29/24 13:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			72148	01/31/24 21:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	71893	01/29/24 17:13	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 21:29	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	71774	01/29/24 09:33	SA	EET MID
Soluble	Analysis	300.0		1			71819	01/30/24 10:24	CH	EET MID

Client Sample ID: FS006

Lab Sample ID: 890-6039-3

Date Collected: 01/25/24 12:16

Matrix: Solid

Date Received: 01/25/24 16:21

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	71343	01/29/24 11:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 13:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71903	01/29/24 13:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			72148	01/31/24 21:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	71893	01/29/24 17:13	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 21:49	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	71774	01/29/24 09:33	SA	EET MID
Soluble	Analysis	300.0		1			71819	01/30/24 10:30	CH	EET MID

Client Sample ID: FS008

Lab Sample ID: 890-6039-4

Date Collected: 01/25/24 12:26

Matrix: Solid

Date Received: 01/25/24 16:21

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	71343	01/29/24 11:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	71764	01/29/24 14:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			71903	01/29/24 14:32	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

Client Sample ID: FS008

Lab Sample ID: 890-6039-4

Date Collected: 01/25/24 12:26

Matrix: Solid

Date Received: 01/25/24 16:21

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			72148	01/31/24 22:10	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	71893	01/29/24 17:13	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	71993	01/31/24 22:10	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71740	01/29/24 11:00	CH	EET MID
Soluble	Analysis	300.0		1			71807	01/30/24 08:59	CH	EET MID

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

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

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRACLINE 002

Job ID: 890-6039-1
SDG: 03C2284002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6039-1	FS001	Solid	01/25/24 11:36	01/25/24 16:21	0.5
890-6039-2	FS004	Solid	01/25/24 12:08	01/25/24 16:21	0.5
890-6039-3	FS006	Solid	01/25/24 12:16	01/25/24 16:21	0.5
890-6039-4	FS008	Solid	01/25/24 12:26	01/25/24 16:21	0.5

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

Chain of Custody

Houston, TX (281) 249-4200, Dallas, TX (214) 902-0300
 Midland, TX (432) 704-5460, San Antonio, TX (210) 500-3334
 EL Paso, TX (915) 585-3943, Lubbock, TX (806) 794-1396
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 886-3199

Environment Testing
 Xenco



Work Order No: _____

6039

www.xenco.com Page _____ of _____

Work Order Comments

Program: UST/PST PRP Brownfields RRC Superfund

State of Project: _____

Reporting: Level II Level III PST/UST TRRP Level IV

Deliverables: EDD ADAPT Other: _____

ANALYSIS REQUEST		Preservative Codes
None: NO	DI Water: H ₂ O	
Cool: Cool	MeOH: Me	
HCL: HCl	HNO ₃ : HN	
H ₂ SO ₄ : H ₂	NO ₂ : NO	
H ₃ PO ₄ : HP		
NaHSO ₄ : NABS		
Na ₂ S ₂ O ₈ : NaSO ₈		
Zn Acetate: NaOAc: Zn		
NaOH: Acetic Acid: SAMP		
		Sample Comments

Total 2007 / 6010 200.B / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

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

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be assessed 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) *Mario S.* Date/Time: *1/25/24 16:30*

Received by: (Signature) _____ Date/Time: _____



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

Eurofins Carlsbad

Chain of Custody Record

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



environment testing

Client Information (Sub Contract Lab)	Sampler	Lab PM	COC No:
Client Contact:	Phone	Kramer Jessica	890-2340-1
Shipping/Receiving		Email: Jessica.Kramer@atl.eurofins.com	Page: Page 1 of 1
Company: Eurofins Environment Testing South Cent		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas	Job #:
Address: 121 W Florida Ave	Due Date Requested		890-6039-1
City: Midland	TAT Requested (days)		
State Zip: TX, 79701			
Phone: 432-704-5440(Te)	PO #:		
Email:	WFO #:		
Project Name: DESERT EAGLE FRACTURE 002	Project #:		
Site:	SSOW#:		

Analysis Requested	Special Instructions/Note:																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> </tr> <tr> <td>TX_1006/TX_1006_S_Prep TX 1006</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>300_ORGFM_28/DI_LEACH Chloride</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>TX_1006_Calc</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Total_BTEX_GCV</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>8021B/6036FP_Calc BTEX</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Total Number of Containers:</td> <td></td> </tr> </table>	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TX_1006/TX_1006_S_Prep TX 1006	<input checked="" type="checkbox"/>	300_ORGFM_28/DI_LEACH Chloride	<input checked="" type="checkbox"/>	TX_1006_Calc	<input checked="" type="checkbox"/>	Total_BTEX_GCV	<input checked="" type="checkbox"/>	8021B/6036FP_Calc BTEX	<input checked="" type="checkbox"/>	Total Number of Containers:		<p>Other: _____</p> <p>Preservation Codes:</p> <table border="0"> <tr><td>A - HCL</td><td>M Hexane</td></tr> <tr><td>B NaOH</td><td>N None</td></tr> <tr><td>C - Zn Acetate</td><td>O AsN2O2</td></tr> <tr><td>D Nitric Acid</td><td>P Na2O4S</td></tr> <tr><td>E NaHSO4</td><td>Q Na2SO3</td></tr> <tr><td>F MeOH</td><td>R Na2S2O3</td></tr> <tr><td>G Anchlor</td><td>S H2SO4</td></tr> <tr><td>H Acetic Acid</td><td>T TSP Dodecahydrate</td></tr> <tr><td>I Ice</td><td>U Acetone</td></tr> <tr><td>J DI Water</td><td>V MCAA</td></tr> <tr><td>K EDTA</td><td>W pH 4-5</td></tr> <tr><td>L EDA</td><td>X Trazna</td></tr> <tr><td>Z other (specify)</td><td></td></tr> </table>	A - HCL	M Hexane	B NaOH	N None	C - Zn Acetate	O AsN2O2	D Nitric Acid	P Na2O4S	E NaHSO4	Q Na2SO3	F MeOH	R Na2S2O3	G Anchlor	S H2SO4	H Acetic Acid	T TSP Dodecahydrate	I Ice	U Acetone	J DI Water	V MCAA	K EDTA	W pH 4-5	L EDA	X Trazna	Z other (specify)	
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)																																								
TX_1006/TX_1006_S_Prep TX 1006	<input checked="" type="checkbox"/>																																								
300_ORGFM_28/DI_LEACH Chloride	<input checked="" type="checkbox"/>																																								
TX_1006_Calc	<input checked="" type="checkbox"/>																																								
Total_BTEX_GCV	<input checked="" type="checkbox"/>																																								
8021B/6036FP_Calc BTEX	<input checked="" type="checkbox"/>																																								
Total Number of Containers:																																									
A - HCL	M Hexane																																								
B NaOH	N None																																								
C - Zn Acetate	O AsN2O2																																								
D Nitric Acid	P Na2O4S																																								
E NaHSO4	Q Na2SO3																																								
F MeOH	R Na2S2O3																																								
G Anchlor	S H2SO4																																								
H Acetic Acid	T TSP Dodecahydrate																																								
I Ice	U Acetone																																								
J DI Water	V MCAA																																								
K EDTA	W pH 4-5																																								
L EDA	X Trazna																																								
Z other (specify)																																									

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=overhead, B=brine, A=Air)	Preservation Code:	Special Instructions/Note:	
						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
FS001 (890-6039-1)	1/25/24	11:36	Central	Solid		<input checked="" type="checkbox"/>	
FS004 (890-6039-2)	1/25/24	12:08	Central	Solid		<input checked="" type="checkbox"/>	
FS006 (890-6039-3)	1/25/24	12:16	Central	Solid		<input checked="" type="checkbox"/>	
FS008 (890-6039-4)	1/25/24	12:26	Central	Solid		<input checked="" type="checkbox"/>	

Possible Hazard Identification
Unconfirmed
Deliverable Requested I II III IV Other (specify) _____ Primary Deliverable Rank: 2
Special Instructions/QC Requirements _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Empty Kit Relinquished by _____ Date/Time _____ Method of Shipment: _____
 Relinquished by _____ Date/Time _____ Company _____
 Relinquished by _____ Date/Time _____ Company _____
 Relinquished by _____ Date/Time _____ Company _____

Custody Seals Intact: _____ Custody Seal No _____
 Cooler Temperature(s) °C and Other Remarks _____
 Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6039-1

SDG Number: 03C2284002

Login Number: 6039

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6039-1

SDG Number: 03C2284002

Login Number: 6039

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 01/29/24 08:46 AM

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

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/12/2024 6:37:09 PM

JOB DESCRIPTION

Desert Eagle Fracline (200)
03C2884002

JOB NUMBER

890-6057-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Euofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/12/2024 6:37:09 PM

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

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

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Laboratory Job ID: 890-6057-1
SDG: 03C2884002

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	24
QC Sample Results	26
QC Association Summary	34
Lab Chronicle	40
Certification Summary	47
Method Summary	48
Sample Summary	49
Chain of Custody	50
Receipt Checklists	53

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

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
SDG: 03C2884002

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: Desert Eagle Fracline (200)

Job ID: 890-6057-1

Job ID: 890-6057-1

Eurofins Carlsbad

Job Narrative 890-6057-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/29/2024 3:47 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 0.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS023 (890-6057-1), FS024 (890-6057-2), FS025 (890-6057-3), FS027 (890-6057-4), FS028 (890-6057-5), FS029 (890-6057-6), FS030 (890-6057-7), FS031 (890-6057-8), FS033 (890-6057-9), FS034 (890-6057-10), FS035 (890-6057-11), FS036 (890-6057-12), FS038 (890-6057-13), FS039 (890-6057-14), FS040 (890-6057-15), FS045 (890-6057-16), FS046 (890-6057-17), FS049 (890-6057-18), FS051 (890-6057-19), FS054 (890-6057-20), FS055 (890-6057-21) and FS056 (890-6057-22).

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-72706 recovered above the upper control limit for Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-72706/82).

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS030 (890-6057-7), FS031 (890-6057-8), FS033 (890-6057-9), FS036 (890-6057-12), FS038 (890-6057-13) and FS046 (890-6057-17). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS028 (890-6057-5) and FS056 (890-6057-22). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-72700 and analytical batch 880-72706 recovered outside control limits for the following analytes: Ethylbenzene and m-Xylene & p-Xylene. Since only an acceptable LCS is required per the method, the data has been qualified and reported.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-72502 and analytical batch 880-72706 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72342 and 880-72343 and analytical batch 880-72615 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-6077-A-1-B) and (890-6077-A-1-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS056 (890-6057-22). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS025 (890-6057-3), FS027

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project: Desert Eagle Fracline (200)

Job ID: 890-6057-1

Job ID: 890-6057-1 (Continued)

Eurofins Carlsbad

(890-6057-4), FS028 (890-6057-5), FS030 (890-6057-7), FS031 (890-6057-8), FS034 (890-6057-10) and (890-6057-A-1-E MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS035 (890-6057-11), FS038 (890-6057-13), FS045 (890-6057-16) and FS046 (890-6057-17). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-72343 and analytical batch 880-72615 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-72343 and analytical batch 880-72615. The associated laboratory control sample (LCS) met acceptance criteria.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72072 and analytical batch 880-72094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72072 and analytical batch 880-72094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

General Chemistry

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS023

Lab Sample ID: 890-6057-1

Date Collected: 01/29/24 09:36

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 09:22	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 09:22	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 09:22	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 09:22	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 09:22	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 09:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	02/06/24 13:27	02/10/24 09:22	1
1,4-Difluorobenzene (Surr)	84		70 - 130	02/06/24 13:27	02/10/24 09:22	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/10/24 09:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/08/24 20:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 20:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 20:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 20:10	1
Total TPH	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	02/05/24 10:11	02/08/24 20:10	1
o-Terphenyl	108		70 - 130	02/05/24 10:11	02/08/24 20:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	209		5.04		mg/Kg			02/04/24 12:51	1

Client Sample ID: FS024

Lab Sample ID: 890-6057-2

Date Collected: 01/29/24 09:38

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/06/24 13:27	02/10/24 09:42	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/06/24 13:27	02/10/24 09:42	1
Ethylbenzene	<0.00198	U **	0.00198		mg/Kg		02/06/24 13:27	02/10/24 09:42	1
m-Xylene & p-Xylene	<0.00396	U **	0.00396		mg/Kg		02/06/24 13:27	02/10/24 09:42	1
o-Xylene	<0.00198	U **	0.00198		mg/Kg		02/06/24 13:27	02/10/24 09:42	1
Xylenes, Total	<0.00396	U **	0.00396		mg/Kg		02/06/24 13:27	02/10/24 09:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	02/06/24 13:27	02/10/24 09:42	1
1,4-Difluorobenzene (Surr)	86		70 - 130	02/06/24 13:27	02/10/24 09:42	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS024

Lab Sample ID: 890-6057-2

Date Collected: 01/29/24 09:38

Matrix: Solid

Date Received: 01/29/24 15:47

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/10/24 09:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/08/24 21:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/05/24 10:11	02/08/24 21:15	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/05/24 10:11	02/08/24 21:15	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/05/24 10:11	02/08/24 21:15	1
Total TPH	<50.5	U	50.5		mg/Kg		02/05/24 10:11	02/08/24 21:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130	02/05/24 10:11	02/08/24 21:15	1
o-Terphenyl	108		70 - 130	02/05/24 10:11	02/08/24 21:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	208		5.05		mg/Kg			02/04/24 13:06	1

Client Sample ID: FS025

Lab Sample ID: 890-6057-3

Date Collected: 01/29/24 09:42

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/06/24 13:27	02/10/24 10:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/06/24 13:27	02/10/24 10:02	1
Ethylbenzene	<0.00201	U **	0.00201		mg/Kg		02/06/24 13:27	02/10/24 10:02	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402		mg/Kg		02/06/24 13:27	02/10/24 10:02	1
o-Xylene	<0.00201	U **	0.00201		mg/Kg		02/06/24 13:27	02/10/24 10:02	1
Xylenes, Total	<0.00402	U **	0.00402		mg/Kg		02/06/24 13:27	02/10/24 10:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130	02/06/24 13:27	02/10/24 10:02	1
1,4-Difluorobenzene (Surr)	84		70 - 130	02/06/24 13:27	02/10/24 10:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/10/24 10:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/08/24 21:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/08/24 21:37	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolium
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS025

Lab Sample ID: 890-6057-3

Date Collected: 01/29/24 09:42

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/08/24 21:37	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/08/24 21:37	1
Total TPH	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/08/24 21:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	143	S1+	70 - 130				02/05/24 10:11	02/08/24 21:37	1
o-Terphenyl	119		70 - 130				02/05/24 10:11	02/08/24 21:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		5.02		mg/Kg			02/04/24 13:11	1

Client Sample ID: FS027

Lab Sample ID: 890-6057-4

Date Collected: 01/29/24 09:48

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/06/24 13:27	02/10/24 10:23	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/06/24 13:27	02/10/24 10:23	1
Ethylbenzene	<0.00202	U **	0.00202		mg/Kg		02/06/24 13:27	02/10/24 10:23	1
m-Xylene & p-Xylene	<0.00404	U **	0.00404		mg/Kg		02/06/24 13:27	02/10/24 10:23	1
o-Xylene	<0.00202	U **	0.00202		mg/Kg		02/06/24 13:27	02/10/24 10:23	1
Xylenes, Total	<0.00404	U **	0.00404		mg/Kg		02/06/24 13:27	02/10/24 10:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130				02/06/24 13:27	02/10/24 10:23	1
1,4-Difluorobenzene (Surr)	82		70 - 130				02/06/24 13:27	02/10/24 10:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/10/24 10:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/08/24 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/05/24 10:11	02/08/24 21:59	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/05/24 10:11	02/08/24 21:59	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/05/24 10:11	02/08/24 21:59	1
Total TPH	<49.7	U	49.7		mg/Kg		02/05/24 10:11	02/08/24 21:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	161	S1+	70 - 130				02/05/24 10:11	02/08/24 21:59	1
o-Terphenyl	137	S1+	70 - 130				02/05/24 10:11	02/08/24 21:59	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS027

Lab Sample ID: 890-6057-4

Date Collected: 01/29/24 09:48

Matrix: Solid

Date Received: 01/29/24 15:47

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	143		4.99		mg/Kg			02/04/24 13:16	1

Client Sample ID: FS028

Lab Sample ID: 890-6057-5

Date Collected: 01/29/24 09:53

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 10:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 10:44	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		02/06/24 13:27	02/10/24 10:44	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399		mg/Kg		02/06/24 13:27	02/10/24 10:44	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		02/06/24 13:27	02/10/24 10:44	1
Xylenes, Total	<0.00399	U **	0.00399		mg/Kg		02/06/24 13:27	02/10/24 10:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	02/06/24 13:27	02/10/24 10:44	1
1,4-Difluorobenzene (Surr)	61	S1-	70 - 130	02/06/24 13:27	02/10/24 10:44	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/10/24 10:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/08/24 22:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 22:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 22:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 22:21	1
Total TPH	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 22:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	139	S1+	70 - 130	02/05/24 10:11	02/08/24 22:21	1
o-Terphenyl	117		70 - 130	02/05/24 10:11	02/08/24 22:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	78.8		4.96		mg/Kg			02/04/24 13:21	1

Client Sample ID: FS029

Lab Sample ID: 890-6057-6

Date Collected: 01/29/24 09:58

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/06/24 13:27	02/10/24 11:05	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/06/24 13:27	02/10/24 11:05	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS029

Lab Sample ID: 890-6057-6

Date Collected: 01/29/24 09:58

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00198	U **	0.00198		mg/Kg		02/06/24 13:27	02/10/24 11:05	1
m-Xylene & p-Xylene	<0.00396	U **	0.00396		mg/Kg		02/06/24 13:27	02/10/24 11:05	1
o-Xylene	<0.00198	U **	0.00198		mg/Kg		02/06/24 13:27	02/10/24 11:05	1
Xylenes, Total	<0.00396	U **	0.00396		mg/Kg		02/06/24 13:27	02/10/24 11:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				02/06/24 13:27	02/10/24 11:05	1
1,4-Difluorobenzene (Surr)	78		70 - 130				02/06/24 13:27	02/10/24 11:05	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/10/24 11:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/08/24 22:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/05/24 10:11	02/08/24 22:43	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/05/24 10:11	02/08/24 22:43	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/05/24 10:11	02/08/24 22:43	1
Total TPH	<49.8	U	49.8		mg/Kg		02/05/24 10:11	02/08/24 22:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130				02/05/24 10:11	02/08/24 22:43	1
o-Terphenyl	107		70 - 130				02/05/24 10:11	02/08/24 22:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	102		4.97		mg/Kg			02/04/24 13:36	1

Client Sample ID: FS030

Lab Sample ID: 890-6057-7

Date Collected: 01/29/24 10:00

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 11:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 11:25	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		02/06/24 13:27	02/10/24 11:25	1
m-Xylene & p-Xylene	<0.00401	U **	0.00401		mg/Kg		02/06/24 13:27	02/10/24 11:25	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		02/06/24 13:27	02/10/24 11:25	1
Xylenes, Total	<0.00401	U **	0.00401		mg/Kg		02/06/24 13:27	02/10/24 11:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				02/06/24 13:27	02/10/24 11:25	1
1,4-Difluorobenzene (Surr)	61	S1-	70 - 130				02/06/24 13:27	02/10/24 11:25	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS030

Lab Sample ID: 890-6057-7

Date Collected: 01/29/24 10:00

Matrix: Solid

Date Received: 01/29/24 15:47

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/10/24 11:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/08/24 23:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/05/24 10:11	02/08/24 23:04	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/05/24 10:11	02/08/24 23:04	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/05/24 10:11	02/08/24 23:04	1
Total TPH	<50.1	U	50.1		mg/Kg		02/05/24 10:11	02/08/24 23:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130	02/05/24 10:11	02/08/24 23:04	1
o-Terphenyl	112		70 - 130	02/05/24 10:11	02/08/24 23:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	197		4.95		mg/Kg			02/04/24 13:40	1

Client Sample ID: FS031

Lab Sample ID: 890-6057-8

Date Collected: 01/29/24 10:07

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 11:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 11:46	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 11:46	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 11:46	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 11:46	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 11:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	02/06/24 13:27	02/10/24 11:46	1
1,4-Difluorobenzene (Surr)	58	S1-	70 - 130	02/06/24 13:27	02/10/24 11:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/10/24 11:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/08/24 23:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/05/24 10:11	02/08/24 23:26	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolium
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS031

Lab Sample ID: 890-6057-8

Date Collected: 01/29/24 10:07

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/05/24 10:11	02/08/24 23:26	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/05/24 10:11	02/08/24 23:26	1
Total TPH	<50.4	U	50.4		mg/Kg		02/05/24 10:11	02/08/24 23:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130				02/05/24 10:11	02/08/24 23:26	1
o-Terphenyl	115		70 - 130				02/05/24 10:11	02/08/24 23:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		4.95		mg/Kg			02/04/24 13:45	1

Client Sample ID: FS033

Lab Sample ID: 890-6057-9

Date Collected: 01/29/24 10:12

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/06/24 13:27	02/10/24 12:06	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/06/24 13:27	02/10/24 12:06	1
Ethylbenzene	<0.00198	U **	0.00198		mg/Kg		02/06/24 13:27	02/10/24 12:06	1
m-Xylene & p-Xylene	<0.00397	U **	0.00397		mg/Kg		02/06/24 13:27	02/10/24 12:06	1
o-Xylene	<0.00198	U **	0.00198		mg/Kg		02/06/24 13:27	02/10/24 12:06	1
Xylenes, Total	<0.00397	U **	0.00397		mg/Kg		02/06/24 13:27	02/10/24 12:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				02/06/24 13:27	02/10/24 12:06	1
1,4-Difluorobenzene (Surr)	60	S1-	70 - 130				02/06/24 13:27	02/10/24 12:06	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/10/24 12:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/08/24 23:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/05/24 10:11	02/08/24 23:48	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/05/24 10:11	02/08/24 23:48	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/05/24 10:11	02/08/24 23:48	1
Total TPH	<49.7	U	49.7		mg/Kg		02/05/24 10:11	02/08/24 23:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130				02/05/24 10:11	02/08/24 23:48	1
o-Terphenyl	108		70 - 130				02/05/24 10:11	02/08/24 23:48	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS033

Lab Sample ID: 890-6057-9

Date Collected: 01/29/24 10:12

Matrix: Solid

Date Received: 01/29/24 15:47

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	144		5.03		mg/Kg			02/04/24 13:50	1

Client Sample ID: FS034

Lab Sample ID: 890-6057-10

Date Collected: 01/29/24 10:13

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 12:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 12:26	1
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		02/06/24 13:27	02/10/24 12:26	1
m-Xylene & p-Xylene	<0.00400	U **	0.00400		mg/Kg		02/06/24 13:27	02/10/24 12:26	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		02/06/24 13:27	02/10/24 12:26	1
Xylenes, Total	<0.00400	U **	0.00400		mg/Kg		02/06/24 13:27	02/10/24 12:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130	02/06/24 13:27	02/10/24 12:26	1
1,4-Difluorobenzene (Surr)	74		70 - 130	02/06/24 13:27	02/10/24 12:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/10/24 12:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/09/24 00:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 00:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 00:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 00:09	1
Total TPH	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130	02/05/24 10:11	02/09/24 00:09	1
o-Terphenyl	114		70 - 130	02/05/24 10:11	02/09/24 00:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		5.01		mg/Kg			02/04/24 13:55	1

Client Sample ID: FS035

Lab Sample ID: 890-6057-11

Date Collected: 01/29/24 10:14

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 13:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 13:49	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS035

Lab Sample ID: 890-6057-11

Date Collected: 01/29/24 10:14

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U **	0.00200		mg/Kg		02/06/24 13:27	02/10/24 13:49	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399		mg/Kg		02/06/24 13:27	02/10/24 13:49	1
o-Xylene	<0.00200	U **	0.00200		mg/Kg		02/06/24 13:27	02/10/24 13:49	1
Xylenes, Total	<0.00399	U **	0.00399		mg/Kg		02/06/24 13:27	02/10/24 13:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130				02/06/24 13:27	02/10/24 13:49	1
1,4-Difluorobenzene (Surr)	75		70 - 130				02/06/24 13:27	02/10/24 13:49	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/10/24 13:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/24 00:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 00:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 00:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 00:53	1
Total TPH	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 00:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	147	S1+	70 - 130				02/05/24 10:11	02/09/24 00:53	1
o-Terphenyl	123		70 - 130				02/05/24 10:11	02/09/24 00:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	222		4.98		mg/Kg			02/04/24 14:00	1

Client Sample ID: FS036

Lab Sample ID: 890-6057-12

Date Collected: 01/29/24 10:15

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/06/24 13:27	02/10/24 14:09	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/06/24 13:27	02/10/24 14:09	1
Ethylbenzene	<0.00201	U **	0.00201		mg/Kg		02/06/24 13:27	02/10/24 14:09	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402		mg/Kg		02/06/24 13:27	02/10/24 14:09	1
o-Xylene	<0.00201	U **	0.00201		mg/Kg		02/06/24 13:27	02/10/24 14:09	1
Xylenes, Total	<0.00402	U **	0.00402		mg/Kg		02/06/24 13:27	02/10/24 14:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130				02/06/24 13:27	02/10/24 14:09	1
1,4-Difluorobenzene (Surr)	66	S1-	70 - 130				02/06/24 13:27	02/10/24 14:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS036

Lab Sample ID: 890-6057-12

Date Collected: 01/29/24 10:15

Matrix: Solid

Date Received: 01/29/24 15:47

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/10/24 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/09/24 01:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/05/24 10:11	02/09/24 01:15	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/05/24 10:11	02/09/24 01:15	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/05/24 10:11	02/09/24 01:15	1
Total TPH	<49.8	U	49.8		mg/Kg		02/05/24 10:11	02/09/24 01:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130				02/05/24 10:11	02/09/24 01:15	1
o-Terphenyl	105		70 - 130				02/05/24 10:11	02/09/24 01:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	104		5.04		mg/Kg			02/04/24 14:15	1

Client Sample ID: FS038

Lab Sample ID: 890-6057-13

Date Collected: 01/29/24 10:17

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/06/24 13:27	02/10/24 14:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/06/24 13:27	02/10/24 14:30	1
Ethylbenzene	<0.00202	U **	0.00202		mg/Kg		02/06/24 13:27	02/10/24 14:30	1
m-Xylene & p-Xylene	<0.00404	U **	0.00404		mg/Kg		02/06/24 13:27	02/10/24 14:30	1
o-Xylene	<0.00202	U **	0.00202		mg/Kg		02/06/24 13:27	02/10/24 14:30	1
Xylenes, Total	<0.00404	U **	0.00404		mg/Kg		02/06/24 13:27	02/10/24 14:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				02/06/24 13:27	02/10/24 14:30	1
1,4-Difluorobenzene (Surr)	61	S1-	70 - 130				02/06/24 13:27	02/10/24 14:30	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/10/24 14:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/09/24 01:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/05/24 10:11	02/09/24 01:37	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolium
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS038

Lab Sample ID: 890-6057-13

Date Collected: 01/29/24 10:17

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/05/24 10:11	02/09/24 01:37	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/05/24 10:11	02/09/24 01:37	1
Total TPH	<50.4	U	50.4		mg/Kg		02/05/24 10:11	02/09/24 01:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	152	S1+	70 - 130				02/05/24 10:11	02/09/24 01:37	1
o-Terphenyl	123		70 - 130				02/05/24 10:11	02/09/24 01:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	203		5.05		mg/Kg			02/04/24 14:25	1

Client Sample ID: FS039

Lab Sample ID: 890-6057-14

Date Collected: 01/29/24 10:18

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/06/24 13:27	02/10/24 14:50	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/06/24 13:27	02/10/24 14:50	1
Ethylbenzene	<0.00202	U **	0.00202		mg/Kg		02/06/24 13:27	02/10/24 14:50	1
m-Xylene & p-Xylene	<0.00403	U **	0.00403		mg/Kg		02/06/24 13:27	02/10/24 14:50	1
o-Xylene	<0.00202	U **	0.00202		mg/Kg		02/06/24 13:27	02/10/24 14:50	1
Xylenes, Total	<0.00403	U **	0.00403		mg/Kg		02/06/24 13:27	02/10/24 14:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130				02/06/24 13:27	02/10/24 14:50	1
1,4-Difluorobenzene (Surr)	75		70 - 130				02/06/24 13:27	02/10/24 14:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/10/24 14:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/09/24 01:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/05/24 10:11	02/09/24 01:59	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/05/24 10:11	02/09/24 01:59	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/05/24 10:11	02/09/24 01:59	1
Total TPH	<50.5	U	50.5		mg/Kg		02/05/24 10:11	02/09/24 01:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130				02/05/24 10:11	02/09/24 01:59	1
o-Terphenyl	110		70 - 130				02/05/24 10:11	02/09/24 01:59	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS039

Lab Sample ID: 890-6057-14

Date Collected: 01/29/24 10:18

Matrix: Solid

Date Received: 01/29/24 15:47

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	178		5.02		mg/Kg			02/04/24 14:40	1

Client Sample ID: FS040

Lab Sample ID: 890-6057-15

Date Collected: 01/29/24 10:19

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 15:11	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 15:11	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 15:11	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 15:11	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 15:11	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/06/24 13:27	02/10/24 15:11	1
1,4-Difluorobenzene (Surr)	81		70 - 130	02/06/24 13:27	02/10/24 15:11	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/10/24 15:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/24 02:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 02:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 02:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 02:21	1
Total TPH	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 02:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130	02/05/24 10:11	02/09/24 02:21	1
o-Terphenyl	111		70 - 130	02/05/24 10:11	02/09/24 02:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	290		5.02		mg/Kg			02/04/24 14:45	1

Client Sample ID: FS045

Lab Sample ID: 890-6057-16

Date Collected: 01/29/24 10:23

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 15:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 15:31	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS045

Lab Sample ID: 890-6057-16

Date Collected: 01/29/24 10:23

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 15:31	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 15:31	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 15:31	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 15:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130				02/06/24 13:27	02/10/24 15:31	1
1,4-Difluorobenzene (Surr)	74		70 - 130				02/06/24 13:27	02/10/24 15:31	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/10/24 15:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/09/24 02:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 02:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 02:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 02:43	1
Total TPH	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 02:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130				02/05/24 10:11	02/09/24 02:43	1
o-Terphenyl	121		70 - 130				02/05/24 10:11	02/09/24 02:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67.6		5.00		mg/Kg			02/04/24 14:50	1

Client Sample ID: FS046

Lab Sample ID: 890-6057-17

Date Collected: 01/29/24 10:26

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/06/24 13:27	02/10/24 15:52	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/06/24 13:27	02/10/24 15:52	1
Ethylbenzene	<0.00201	U **	0.00201		mg/Kg		02/06/24 13:27	02/10/24 15:52	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402		mg/Kg		02/06/24 13:27	02/10/24 15:52	1
o-Xylene	<0.00201	U **	0.00201		mg/Kg		02/06/24 13:27	02/10/24 15:52	1
Xylenes, Total	<0.00402	U **	0.00402		mg/Kg		02/06/24 13:27	02/10/24 15:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130				02/06/24 13:27	02/10/24 15:52	1
1,4-Difluorobenzene (Surr)	58	S1-	70 - 130				02/06/24 13:27	02/10/24 15:52	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS046

Lab Sample ID: 890-6057-17

Date Collected: 01/29/24 10:26

Matrix: Solid

Date Received: 01/29/24 15:47

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/10/24 15:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/09/24 03:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 03:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 03:04	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 03:04	1
Total TPH	<49.9	U	49.9		mg/Kg		02/05/24 10:11	02/09/24 03:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	145	S1+	70 - 130				02/05/24 10:11	02/09/24 03:04	1
o-Terphenyl	124		70 - 130				02/05/24 10:11	02/09/24 03:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	526		4.97		mg/Kg			02/04/24 14:55	1

Client Sample ID: FS051

Lab Sample ID: 890-6057-19

Date Collected: 01/29/24 10:41

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/06/24 13:27	02/10/24 16:12	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/06/24 13:27	02/10/24 16:12	1
Ethylbenzene	<0.00202	U **	0.00202		mg/Kg		02/06/24 13:27	02/10/24 16:12	1
m-Xylene & p-Xylene	<0.00404	U **	0.00404		mg/Kg		02/06/24 13:27	02/10/24 16:12	1
o-Xylene	<0.00202	U **	0.00202		mg/Kg		02/06/24 13:27	02/10/24 16:12	1
Xylenes, Total	<0.00404	U **	0.00404		mg/Kg		02/06/24 13:27	02/10/24 16:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130				02/06/24 13:27	02/10/24 16:12	1
1,4-Difluorobenzene (Surr)	73		70 - 130				02/06/24 13:27	02/10/24 16:12	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/10/24 16:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/09/24 03:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 03:26	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolium
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS051

Lab Sample ID: 890-6057-19

Date Collected: 01/29/24 10:41

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 03:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 03:26	1
Total TPH	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/09/24 03:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130				02/05/24 10:11	02/09/24 03:26	1
o-Terphenyl	110		70 - 130				02/05/24 10:11	02/09/24 03:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	709		4.99		mg/Kg			02/04/24 14:59	1

Client Sample ID: FS054

Lab Sample ID: 890-6057-20

Date Collected: 01/29/24 10:43

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 16:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/06/24 13:27	02/10/24 16:33	1
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 16:33	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 16:33	1
o-Xylene	<0.00199	U **	0.00199		mg/Kg		02/06/24 13:27	02/10/24 16:33	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		02/06/24 13:27	02/10/24 16:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130				02/06/24 13:27	02/10/24 16:33	1
1,4-Difluorobenzene (Surr)	76		70 - 130				02/06/24 13:27	02/10/24 16:33	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/10/24 16:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/09/24 03:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/05/24 10:11	02/09/24 03:48	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/05/24 10:11	02/09/24 03:48	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/05/24 10:11	02/09/24 03:48	1
Total TPH	<50.1	U	50.1		mg/Kg		02/05/24 10:11	02/09/24 03:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				02/05/24 10:11	02/09/24 03:48	1
o-Terphenyl	108		70 - 130				02/05/24 10:11	02/09/24 03:48	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS054

Lab Sample ID: 890-6057-20

Date Collected: 01/29/24 10:43

Matrix: Solid

Date Received: 01/29/24 15:47

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	146		5.01		mg/Kg			02/04/24 15:04	1

Client Sample ID: FS055

Lab Sample ID: 890-6057-21

Date Collected: 01/29/24 10:44

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000198	U	0.000198		mg/Kg		02/06/24 13:27	02/10/24 16:53	1
Toluene	<0.000198	U	0.000198		mg/Kg		02/06/24 13:27	02/10/24 16:53	1
Ethylbenzene	<0.000198	U **	0.000198		mg/Kg		02/06/24 13:27	02/10/24 16:53	1
m-Xylene & p-Xylene	<0.000397	U **	0.000397		mg/Kg		02/06/24 13:27	02/10/24 16:53	1
o-Xylene	<0.000198	U **	0.000198		mg/Kg		02/06/24 13:27	02/10/24 16:53	1
Xylenes, Total	<0.000397	U **	0.000397		mg/Kg		02/06/24 13:27	02/10/24 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/06/24 13:27	02/10/24 16:53	1
1,4-Difluorobenzene (Surr)	76		70 - 130	02/06/24 13:27	02/10/24 16:53	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000397	U	0.000397		mg/Kg			02/10/24 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			02/09/24 04:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		02/05/24 10:11	02/09/24 04:10	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		02/05/24 10:11	02/09/24 04:10	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		02/05/24 10:11	02/09/24 04:10	1
Total TPH	<50.2	U	50.2		mg/Kg		02/05/24 10:11	02/09/24 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130	02/05/24 10:11	02/09/24 04:10	1
o-Terphenyl	106		70 - 130	02/05/24 10:11	02/09/24 04:10	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	357		4.96		mg/Kg			02/04/24 15:09	1

Client Sample ID: FS056

Lab Sample ID: 890-6057-22

Date Collected: 01/29/24 10:46

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/09/24 08:20	02/09/24 16:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/09/24 08:20	02/09/24 16:51	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS056

Lab Sample ID: 890-6057-22

Date Collected: 01/29/24 10:46

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00199	U **	0.00199		mg/Kg		02/09/24 08:20	02/09/24 16:51	1
m-Xylene & p-Xylene	<0.00398	U **	0.00398		mg/Kg		02/09/24 08:20	02/09/24 16:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/09/24 08:20	02/09/24 16:51	1
Xylenes, Total	<0.00398	U **	0.00398		mg/Kg		02/09/24 08:20	02/09/24 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130				02/09/24 08:20	02/09/24 16:51	1
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130				02/09/24 08:20	02/09/24 16:51	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/09/24 16:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/08/24 17:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/05/24 10:14	02/08/24 17:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/05/24 10:14	02/08/24 17:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/05/24 10:14	02/08/24 17:59	1
Total TPH	<50.0	U	50.0		mg/Kg		02/05/24 10:14	02/08/24 17:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130				02/05/24 10:14	02/08/24 17:59	1
o-Terphenyl	117		70 - 130				02/05/24 10:14	02/08/24 17:59	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	516		50.2		mg/Kg			02/01/24 09:44	10

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-6057-1	FS023	80	84
890-6057-1 MS	FS023	120	92
890-6057-1 MSD	FS023	113	99
890-6057-2	FS024	71	86
890-6057-3	FS025	72	84
890-6057-4	FS027	79	82
890-6057-5	FS028	92	61 S1-
890-6057-6	FS029	87	78
890-6057-7	FS030	87	61 S1-
890-6057-8	FS031	84	58 S1-
890-6057-9	FS033	87	60 S1-
890-6057-10	FS034	87	74
890-6057-11	FS035	84	75
890-6057-12	FS036	85	66 S1-
890-6057-13	FS038	87	61 S1-
890-6057-14	FS039	85	75
890-6057-15	FS040	85	81
890-6057-16	FS045	84	74
890-6057-17	FS046	85	58 S1-
890-6057-19	FS051	84	73
890-6057-20	FS054	82	76
890-6057-21	FS055	88	76
890-6057-22	FS056	84	68 S1-
LCS 880-72502/1-A	Lab Control Sample	115	104
LCS 880-72700/1-A	Lab Control Sample	119	94
LCS D 880-72502/2-A	Lab Control Sample Dup	124	94
LCS D 880-72700/2-A	Lab Control Sample Dup	121	91
MB 880-72502/5-A	Method Blank	73	83
MB 880-72700/5-A	Method Blank	73	78
MB 880-72735/5-A	Method Blank	74	81

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-6057-1	FS023	128	108
890-6057-1 MS	FS023	144 S1+	113
890-6057-1 MSD	FS023	129	103
890-6057-2	FS024	126	108
890-6057-3	FS025	143 S1+	119
890-6057-4	FS027	161 S1+	137 S1+
890-6057-5	FS028	139 S1+	117
890-6057-6	FS029	125	107
890-6057-7	FS030	131 S1+	112

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-6057-8	FS031	133 S1+	115
890-6057-9	FS033	125	108
890-6057-10	FS034	133 S1+	114
890-6057-11	FS035	147 S1+	123
890-6057-12	FS036	127	105
890-6057-13	FS038	152 S1+	123
890-6057-14	FS039	129	110
890-6057-15	FS040	130	111
890-6057-16	FS045	142 S1+	121
890-6057-17	FS046	145 S1+	124
890-6057-19	FS051	124	110
890-6057-20	FS054	126	108
890-6057-21	FS055	123	106
890-6057-22	FS056	137 S1+	117
890-6077-A-1-C MS	Matrix Spike	115	91
890-6077-A-1-D MSD	Matrix Spike Duplicate	146 S1+	122
LCS 880-72342/2-A	Lab Control Sample	94	94
LCS 880-72343/2-A	Lab Control Sample	97	95
LCSD 880-72342/3-A	Lab Control Sample Dup	91	91
LCSD 880-72343/3-A	Lab Control Sample Dup	96	95
MB 880-72342/1-A	Method Blank	159 S1+	143 S1+
MB 880-72343/1-A	Method Blank	161 S1+	141 S1+

Surrogate Legend

1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

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

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72502/5-A
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72502

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 09:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/06/24 13:27	02/10/24 09:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/06/24 13:27	02/10/24 09:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130	02/06/24 13:27	02/10/24 09:00	1
1,4-Difluorobenzene (Surr)	83		70 - 130	02/06/24 13:27	02/10/24 09:00	1

Lab Sample ID: LCS 880-72502/1-A
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72502

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1042		mg/Kg		104	70 - 130
Toluene	0.100	0.1055		mg/Kg		106	70 - 130
Ethylbenzene	0.100	0.1181		mg/Kg		118	70 - 130
m-Xylene & p-Xylene	0.200	0.2396		mg/Kg		120	70 - 130
o-Xylene	0.100	0.1180		mg/Kg		118	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-72502/2-A
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72502

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1158		mg/Kg		116	70 - 130	11	35
Toluene	0.100	0.1188		mg/Kg		119	70 - 130	12	35
Ethylbenzene	0.100	0.1374	*+	mg/Kg		137	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.2786	*+	mg/Kg		139	70 - 130	15	35
o-Xylene	0.100	0.1365	*+	mg/Kg		137	70 - 130	15	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-6057-1 MS
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: FS023
 Prep Type: Total/NA
 Prep Batch: 72502

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.101	0.09973		mg/Kg		99	70 - 130
Toluene	<0.00199	U	0.101	0.1061		mg/Kg		105	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6057-1 MS
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: FS023
Prep Type: Total/NA
Prep Batch: 72502

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U *	0.101	0.1136		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	<0.00398	U *	0.202	0.2252		mg/Kg		112	70 - 130
o-Xylene	<0.00199	U *	0.101	0.1100		mg/Kg		109	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 890-6057-1 MSD
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: FS023
Prep Type: Total/NA
Prep Batch: 72502

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	0.08935		mg/Kg		89	70 - 130	11	35
Toluene	<0.00199	U	0.100	0.09175		mg/Kg		91	70 - 130	14	35
Ethylbenzene	<0.00199	U *	0.100	0.09859		mg/Kg		98	70 - 130	14	35
m-Xylene & p-Xylene	<0.00398	U *	0.200	0.1900		mg/Kg		95	70 - 130	17	35
o-Xylene	<0.00199	U *	0.100	0.09257		mg/Kg		92	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: MB 880-72700/5-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72700

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/09/24 08:20	02/09/24 11:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/09/24 08:20	02/09/24 11:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/09/24 08:20	02/09/24 11:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/09/24 08:20	02/09/24 11:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/09/24 08:20	02/09/24 11:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/09/24 08:20	02/09/24 11:08	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130	02/09/24 08:20	02/09/24 11:08	1
1,4-Difluorobenzene (Surr)	78		70 - 130	02/09/24 08:20	02/09/24 11:08	1

Lab Sample ID: LCS 880-72700/1-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72700

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1059		mg/Kg		106	70 - 130
Toluene	0.100	0.1098		mg/Kg		110	70 - 130
Ethylbenzene	0.100	0.1224		mg/Kg		122	70 - 130
m-Xylene & p-Xylene	0.200	0.2501		mg/Kg		125	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
SDG: 03C2884002

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

Lab Sample ID: LCS 880-72700/1-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72700

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1194		mg/Kg		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-72700/2-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72700

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1098		mg/Kg		110	70 - 130	4	35
Toluene	0.100	0.1194		mg/Kg		119	70 - 130	8	35
Ethylbenzene	0.100	0.1366	*+	mg/Kg		137	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2705	*+	mg/Kg		135	70 - 130	8	35
o-Xylene	0.100	0.1290		mg/Kg		129	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: MB 880-72735/5-A
Matrix: Solid
Analysis Batch: 72706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/09/24 11:36	02/09/24 22:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/09/24 11:36	02/09/24 22:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/09/24 11:36	02/09/24 22:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/09/24 11:36	02/09/24 22:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/09/24 11:36	02/09/24 22:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/09/24 11:36	02/09/24 22:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	02/09/24 11:36	02/09/24 22:20	1
1,4-Difluorobenzene (Surr)	81		70 - 130	02/09/24 11:36	02/09/24 22:20	1

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

Lab Sample ID: MB 880-72342/1-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 19:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 19:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 19:04	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

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

Lab Sample ID: MB 880-72342/1-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg		02/05/24 10:11	02/08/24 19:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	159	S1+	70 - 130	02/05/24 10:11	02/08/24 19:04	1
o-Terphenyl	143	S1+	70 - 130	02/05/24 10:11	02/08/24 19:04	1

Lab Sample ID: LCS 880-72342/2-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1029		mg/Kg		103	70 - 130
Diesel Range Organics (Over C10-C28)	1000	854.8		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: LCSD 880-72342/3-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1006		mg/Kg		101	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	841.6		mg/Kg		84	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 890-6057-1 MS
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: FS023
Prep Type: Total/NA
Prep Batch: 72342

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	1035		mg/Kg		101	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1194		mg/Kg		119	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	144	S1+	70 - 130
o-Terphenyl	113		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6057-1 MSD
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: FS023
Prep Type: Total/NA
Prep Batch: 72342

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	934.0		mg/Kg		91	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1082		mg/Kg		108	70 - 130	10	20
Surrogate	MSD	MSD									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	129		70 - 130								
o-Terphenyl	103		70 - 130								

Lab Sample ID: MB 880-72343/1-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72343

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/05/24 10:14	02/08/24 07:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/05/24 10:14	02/08/24 07:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/05/24 10:14	02/08/24 07:47	1
Total TPH	<50.0	U	50.0		mg/Kg		02/05/24 10:14	02/08/24 07:47	1
Surrogate	MB	MB					Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	Limits						
1-Chlorooctane	161	S1+	70 - 130				02/05/24 10:14	02/08/24 07:47	1
o-Terphenyl	141	S1+	70 - 130				02/05/24 10:14	02/08/24 07:47	1

Lab Sample ID: LCS 880-72343/2-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72343

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
							Result
Gasoline Range Organics (GRO)-C6-C10	1000	811.1		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	872.0		mg/Kg		87	70 - 130
Surrogate	LCS	LCS					
	%Recovery	Qualifier	Limits				
1-Chlorooctane	97		70 - 130				
o-Terphenyl	95		70 - 130				

Lab Sample ID: LCSD 880-72343/3-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72343

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
							Result		
Gasoline Range Organics (GRO)-C6-C10	1000	848.3		mg/Kg		85	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	876.8		mg/Kg		88	70 - 130	1	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
SDG: 03C2884002

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

Lab Sample ID: LCSD 880-72343/3-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72343

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: 890-6077-A-1-C MS
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 72343

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	1190		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1 F2	999	920.2		mg/Kg		90	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 890-6077-A-1-D MSD
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 72343

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	<50.0	U F1 F2	mg/Kg		0.9	70 - 130	186	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1 F2	999	<50.0	U F1 F2	mg/Kg		0.3	70 - 130	191	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	146	S1+	70 - 130
o-Terphenyl	122		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72072/1-A
Matrix: Solid
Analysis Batch: 72094

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/01/24 08:25	1

Lab Sample ID: LCS 880-72072/2-A
Matrix: Solid
Analysis Batch: 72094

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	243.3		mg/Kg		97	90 - 110

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-72072/3-A
 Matrix: Solid
 Analysis Batch: 72094

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	241.5		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 890-6076-A-1-B MS
 Matrix: Solid
 Analysis Batch: 72094

Client Sample ID: Matrix Spike
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	732	F1	2490	3998	F1	mg/Kg		131	90 - 110

Lab Sample ID: 890-6076-A-1-C MSD
 Matrix: Solid
 Analysis Batch: 72094

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	732	F1	2530	4073	F1	mg/Kg		132	90 - 110	2	20

Lab Sample ID: MB 880-72009/1-A
 Matrix: Solid
 Analysis Batch: 72256

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/04/24 12:36	1

Lab Sample ID: LCS 880-72009/2-A
 Matrix: Solid
 Analysis Batch: 72256

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	239.0		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-72009/3-A
 Matrix: Solid
 Analysis Batch: 72256

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	240.2		mg/Kg		96	90 - 110	0	20

Lab Sample ID: 890-6057-1 MS
 Matrix: Solid
 Analysis Batch: 72256

Client Sample ID: FS023
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	209		252	451.1		mg/Kg		96	90 - 110

Lab Sample ID: 890-6057-1 MSD
 Matrix: Solid
 Analysis Batch: 72256

Client Sample ID: FS023
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	209		252	452.8		mg/Kg		97	90 - 110	0	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-6057-11 MS
Matrix: Solid
Analysis Batch: 72256

Client Sample ID: FS035
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	222		249	463.3		mg/Kg		97	90 - 110

Lab Sample ID: 890-6057-11 MSD
Matrix: Solid
Analysis Batch: 72256

Client Sample ID: FS035
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	222		249	464.8		mg/Kg		97	90 - 110	0	20

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

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

GC VOA

Prep Batch: 72502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-1	FS023	Total/NA	Solid	5035	
890-6057-2	FS024	Total/NA	Solid	5035	
890-6057-3	FS025	Total/NA	Solid	5035	
890-6057-4	FS027	Total/NA	Solid	5035	
890-6057-5	FS028	Total/NA	Solid	5035	
890-6057-6	FS029	Total/NA	Solid	5035	
890-6057-7	FS030	Total/NA	Solid	5035	
890-6057-8	FS031	Total/NA	Solid	5035	
890-6057-9	FS033	Total/NA	Solid	5035	
890-6057-10	FS034	Total/NA	Solid	5035	
890-6057-11	FS035	Total/NA	Solid	5035	
890-6057-12	FS036	Total/NA	Solid	5035	
890-6057-13	FS038	Total/NA	Solid	5035	
890-6057-14	FS039	Total/NA	Solid	5035	
890-6057-15	FS040	Total/NA	Solid	5035	
890-6057-16	FS045	Total/NA	Solid	5035	
890-6057-17	FS046	Total/NA	Solid	5035	
890-6057-19	FS051	Total/NA	Solid	5035	
890-6057-20	FS054	Total/NA	Solid	5035	
890-6057-21	FS055	Total/NA	Solid	5035	
MB 880-72502/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72502/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72502/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6057-1 MS	FS023	Total/NA	Solid	5035	
890-6057-1 MSD	FS023	Total/NA	Solid	5035	

Prep Batch: 72700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-22	FS056	Total/NA	Solid	5035	
MB 880-72700/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72700/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72700/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 72706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-1	FS023	Total/NA	Solid	8021B	72502
890-6057-2	FS024	Total/NA	Solid	8021B	72502
890-6057-3	FS025	Total/NA	Solid	8021B	72502
890-6057-4	FS027	Total/NA	Solid	8021B	72502
890-6057-5	FS028	Total/NA	Solid	8021B	72502
890-6057-6	FS029	Total/NA	Solid	8021B	72502
890-6057-7	FS030	Total/NA	Solid	8021B	72502
890-6057-8	FS031	Total/NA	Solid	8021B	72502
890-6057-9	FS033	Total/NA	Solid	8021B	72502
890-6057-10	FS034	Total/NA	Solid	8021B	72502
890-6057-11	FS035	Total/NA	Solid	8021B	72502
890-6057-12	FS036	Total/NA	Solid	8021B	72502
890-6057-13	FS038	Total/NA	Solid	8021B	72502
890-6057-14	FS039	Total/NA	Solid	8021B	72502
890-6057-15	FS040	Total/NA	Solid	8021B	72502
890-6057-16	FS045	Total/NA	Solid	8021B	72502

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

GC VOA (Continued)

Analysis Batch: 72706 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-17	FS046	Total/NA	Solid	8021B	72502
890-6057-19	FS051	Total/NA	Solid	8021B	72502
890-6057-20	FS054	Total/NA	Solid	8021B	72502
890-6057-21	FS055	Total/NA	Solid	8021B	72502
890-6057-22	FS056	Total/NA	Solid	8021B	72700
MB 880-72502/5-A	Method Blank	Total/NA	Solid	8021B	72502
MB 880-72700/5-A	Method Blank	Total/NA	Solid	8021B	72700
MB 880-72735/5-A	Method Blank	Total/NA	Solid	8021B	72735
LCS 880-72502/1-A	Lab Control Sample	Total/NA	Solid	8021B	72502
LCS 880-72700/1-A	Lab Control Sample	Total/NA	Solid	8021B	72700
LCS 880-72502/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72502
LCS 880-72700/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72700
890-6057-1 MS	FS023	Total/NA	Solid	8021B	72502
890-6057-1 MSD	FS023	Total/NA	Solid	8021B	72502

Prep Batch: 72735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-72735/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 72984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-1	FS023	Total/NA	Solid	Total BTEX	
890-6057-2	FS024	Total/NA	Solid	Total BTEX	
890-6057-3	FS025	Total/NA	Solid	Total BTEX	
890-6057-4	FS027	Total/NA	Solid	Total BTEX	
890-6057-5	FS028	Total/NA	Solid	Total BTEX	
890-6057-6	FS029	Total/NA	Solid	Total BTEX	
890-6057-7	FS030	Total/NA	Solid	Total BTEX	
890-6057-8	FS031	Total/NA	Solid	Total BTEX	
890-6057-9	FS033	Total/NA	Solid	Total BTEX	
890-6057-10	FS034	Total/NA	Solid	Total BTEX	
890-6057-11	FS035	Total/NA	Solid	Total BTEX	
890-6057-12	FS036	Total/NA	Solid	Total BTEX	
890-6057-13	FS038	Total/NA	Solid	Total BTEX	
890-6057-14	FS039	Total/NA	Solid	Total BTEX	
890-6057-15	FS040	Total/NA	Solid	Total BTEX	
890-6057-16	FS045	Total/NA	Solid	Total BTEX	
890-6057-17	FS046	Total/NA	Solid	Total BTEX	
890-6057-19	FS051	Total/NA	Solid	Total BTEX	
890-6057-20	FS054	Total/NA	Solid	Total BTEX	
890-6057-21	FS055	Total/NA	Solid	Total BTEX	
890-6057-22	FS056	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-1	FS023	Total/NA	Solid	8015NM Prep	
890-6057-2	FS024	Total/NA	Solid	8015NM Prep	
890-6057-3	FS025	Total/NA	Solid	8015NM Prep	
890-6057-4	FS027	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

GC Semi VOA (Continued)

Prep Batch: 72342 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-5	FS028	Total/NA	Solid	8015NM Prep	
890-6057-6	FS029	Total/NA	Solid	8015NM Prep	
890-6057-7	FS030	Total/NA	Solid	8015NM Prep	
890-6057-8	FS031	Total/NA	Solid	8015NM Prep	
890-6057-9	FS033	Total/NA	Solid	8015NM Prep	
890-6057-10	FS034	Total/NA	Solid	8015NM Prep	
890-6057-11	FS035	Total/NA	Solid	8015NM Prep	
890-6057-12	FS036	Total/NA	Solid	8015NM Prep	
890-6057-13	FS038	Total/NA	Solid	8015NM Prep	
890-6057-14	FS039	Total/NA	Solid	8015NM Prep	
890-6057-15	FS040	Total/NA	Solid	8015NM Prep	
890-6057-16	FS045	Total/NA	Solid	8015NM Prep	
890-6057-17	FS046	Total/NA	Solid	8015NM Prep	
890-6057-19	FS051	Total/NA	Solid	8015NM Prep	
890-6057-20	FS054	Total/NA	Solid	8015NM Prep	
890-6057-21	FS055	Total/NA	Solid	8015NM Prep	
MB 880-72342/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72342/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCS 880-72342/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6057-1 MS	FS023	Total/NA	Solid	8015NM Prep	
890-6057-1 MSD	FS023	Total/NA	Solid	8015NM Prep	

Prep Batch: 72343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-22	FS056	Total/NA	Solid	8015NM Prep	
MB 880-72343/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72343/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCS 880-72343/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6077-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6077-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-1	FS023	Total/NA	Solid	8015B NM	72342
890-6057-2	FS024	Total/NA	Solid	8015B NM	72342
890-6057-3	FS025	Total/NA	Solid	8015B NM	72342
890-6057-4	FS027	Total/NA	Solid	8015B NM	72342
890-6057-5	FS028	Total/NA	Solid	8015B NM	72342
890-6057-6	FS029	Total/NA	Solid	8015B NM	72342
890-6057-7	FS030	Total/NA	Solid	8015B NM	72342
890-6057-8	FS031	Total/NA	Solid	8015B NM	72342
890-6057-9	FS033	Total/NA	Solid	8015B NM	72342
890-6057-10	FS034	Total/NA	Solid	8015B NM	72342
890-6057-11	FS035	Total/NA	Solid	8015B NM	72342
890-6057-12	FS036	Total/NA	Solid	8015B NM	72342
890-6057-13	FS038	Total/NA	Solid	8015B NM	72342
890-6057-14	FS039	Total/NA	Solid	8015B NM	72342
890-6057-15	FS040	Total/NA	Solid	8015B NM	72342
890-6057-16	FS045	Total/NA	Solid	8015B NM	72342
890-6057-17	FS046	Total/NA	Solid	8015B NM	72342
890-6057-19	FS051	Total/NA	Solid	8015B NM	72342

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

GC Semi VOA (Continued)

Analysis Batch: 72615 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-20	FS054	Total/NA	Solid	8015B NM	72342
890-6057-21	FS055	Total/NA	Solid	8015B NM	72342
890-6057-22	FS056	Total/NA	Solid	8015B NM	72343
MB 880-72342/1-A	Method Blank	Total/NA	Solid	8015B NM	72342
MB 880-72343/1-A	Method Blank	Total/NA	Solid	8015B NM	72343
LCS 880-72342/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72342
LCS 880-72343/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72343
LCSD 880-72342/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72342
LCSD 880-72343/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72343
890-6057-1 MS	FS023	Total/NA	Solid	8015B NM	72342
890-6057-1 MSD	FS023	Total/NA	Solid	8015B NM	72342
890-6077-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	72343
890-6077-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	72343

Analysis Batch: 72768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-1	FS023	Total/NA	Solid	8015 NM	
890-6057-2	FS024	Total/NA	Solid	8015 NM	
890-6057-3	FS025	Total/NA	Solid	8015 NM	
890-6057-4	FS027	Total/NA	Solid	8015 NM	
890-6057-5	FS028	Total/NA	Solid	8015 NM	
890-6057-6	FS029	Total/NA	Solid	8015 NM	
890-6057-7	FS030	Total/NA	Solid	8015 NM	
890-6057-8	FS031	Total/NA	Solid	8015 NM	
890-6057-9	FS033	Total/NA	Solid	8015 NM	
890-6057-10	FS034	Total/NA	Solid	8015 NM	
890-6057-11	FS035	Total/NA	Solid	8015 NM	
890-6057-12	FS036	Total/NA	Solid	8015 NM	
890-6057-13	FS038	Total/NA	Solid	8015 NM	
890-6057-14	FS039	Total/NA	Solid	8015 NM	
890-6057-15	FS040	Total/NA	Solid	8015 NM	
890-6057-16	FS045	Total/NA	Solid	8015 NM	
890-6057-17	FS046	Total/NA	Solid	8015 NM	
890-6057-19	FS051	Total/NA	Solid	8015 NM	
890-6057-20	FS054	Total/NA	Solid	8015 NM	
890-6057-21	FS055	Total/NA	Solid	8015 NM	
890-6057-22	FS056	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 72009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-1	FS023	Soluble	Solid	DI Leach	
890-6057-2	FS024	Soluble	Solid	DI Leach	
890-6057-3	FS025	Soluble	Solid	DI Leach	
890-6057-4	FS027	Soluble	Solid	DI Leach	
890-6057-5	FS028	Soluble	Solid	DI Leach	
890-6057-6	FS029	Soluble	Solid	DI Leach	
890-6057-7	FS030	Soluble	Solid	DI Leach	
890-6057-8	FS031	Soluble	Solid	DI Leach	
890-6057-9	FS033	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
SDG: 03C2884002

HPLC/IC (Continued)

Leach Batch: 72009 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-10	FS034	Soluble	Solid	DI Leach	
890-6057-11	FS035	Soluble	Solid	DI Leach	
890-6057-12	FS036	Soluble	Solid	DI Leach	
890-6057-13	FS038	Soluble	Solid	DI Leach	
890-6057-14	FS039	Soluble	Solid	DI Leach	
890-6057-15	FS040	Soluble	Solid	DI Leach	
890-6057-16	FS045	Soluble	Solid	DI Leach	
890-6057-17	FS046	Soluble	Solid	DI Leach	
890-6057-19	FS051	Soluble	Solid	DI Leach	
890-6057-20	FS054	Soluble	Solid	DI Leach	
890-6057-21	FS055	Soluble	Solid	DI Leach	
MB 880-72009/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72009/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72009/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6057-1 MS	FS023	Soluble	Solid	DI Leach	
890-6057-1 MSD	FS023	Soluble	Solid	DI Leach	
890-6057-11 MS	FS035	Soluble	Solid	DI Leach	
890-6057-11 MSD	FS035	Soluble	Solid	DI Leach	

Leach Batch: 72072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-22	FS056	Soluble	Solid	DI Leach	
MB 880-72072/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72072/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72072/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6076-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-6076-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 72094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-22	FS056	Soluble	Solid	300.0	72072
MB 880-72072/1-A	Method Blank	Soluble	Solid	300.0	72072
LCS 880-72072/2-A	Lab Control Sample	Soluble	Solid	300.0	72072
LCSD 880-72072/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72072
890-6076-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	72072
890-6076-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	72072

Analysis Batch: 72256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-1	FS023	Soluble	Solid	300.0	72009
890-6057-2	FS024	Soluble	Solid	300.0	72009
890-6057-3	FS025	Soluble	Solid	300.0	72009
890-6057-4	FS027	Soluble	Solid	300.0	72009
890-6057-5	FS028	Soluble	Solid	300.0	72009
890-6057-6	FS029	Soluble	Solid	300.0	72009
890-6057-7	FS030	Soluble	Solid	300.0	72009
890-6057-8	FS031	Soluble	Solid	300.0	72009
890-6057-9	FS033	Soluble	Solid	300.0	72009
890-6057-10	FS034	Soluble	Solid	300.0	72009
890-6057-11	FS035	Soluble	Solid	300.0	72009
890-6057-12	FS036	Soluble	Solid	300.0	72009

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
SDG: 03C2884002

HPLC/IC (Continued)

Analysis Batch: 72256 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-13	FS038	Soluble	Solid	300.0	72009
890-6057-14	FS039	Soluble	Solid	300.0	72009
890-6057-15	FS040	Soluble	Solid	300.0	72009
890-6057-16	FS045	Soluble	Solid	300.0	72009
890-6057-17	FS046	Soluble	Solid	300.0	72009
890-6057-19	FS051	Soluble	Solid	300.0	72009
890-6057-20	FS054	Soluble	Solid	300.0	72009
890-6057-21	FS055	Soluble	Solid	300.0	72009
MB 880-72009/1-A	Method Blank	Soluble	Solid	300.0	72009
LCS 880-72009/2-A	Lab Control Sample	Soluble	Solid	300.0	72009
LCSD 880-72009/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72009
890-6057-1 MS	FS023	Soluble	Solid	300.0	72009
890-6057-1 MSD	FS023	Soluble	Solid	300.0	72009
890-6057-11 MS	FS035	Soluble	Solid	300.0	72009
890-6057-11 MSD	FS035	Soluble	Solid	300.0	72009

General Chemistry

Analysis Batch: 72008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6057-21	FS055	Total/NA	Solid	D2216	
MB 880-72008/1	Method Blank	Total/NA	Solid	D2216	
890-6057-21 DU	FS055	Total/NA	Solid	D2216	

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS023

Lab Sample ID: 890-6057-1

Date Collected: 01/29/24 09:36

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 09:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 09:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 20:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 20:10	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 12:51	CH	EET MID

Client Sample ID: FS024

Lab Sample ID: 890-6057-2

Date Collected: 01/29/24 09:38

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 09:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 21:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 21:15	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:06	CH	EET MID

Client Sample ID: FS025

Lab Sample ID: 890-6057-3

Date Collected: 01/29/24 09:42

Matrix: Solid

Date Received: 01/29/24 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 10:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 10:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 21:37	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 21:37	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:11	CH	EET MID

Client Sample ID: FS027

Lab Sample ID: 890-6057-4

Date Collected: 01/29/24 09:48

Matrix: Solid

Date Received: 01/29/24 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 10:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 10:23	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS027

Lab Sample ID: 890-6057-4

Date Collected: 01/29/24 09:48

Matrix: Solid

Date Received: 01/29/24 15:47

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			72768	02/08/24 21:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 21:59	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:16	CH	EET MID

Client Sample ID: FS028

Lab Sample ID: 890-6057-5

Date Collected: 01/29/24 09:53

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 10:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 10:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 22:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 22:21	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:21	CH	EET MID

Client Sample ID: FS029

Lab Sample ID: 890-6057-6

Date Collected: 01/29/24 09:58

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 11:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 11:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 22:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 22:43	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:36	CH	EET MID

Client Sample ID: FS030

Lab Sample ID: 890-6057-7

Date Collected: 01/29/24 10:00

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 11:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 23:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 23:04	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS030
 Date Collected: 01/29/24 10:00
 Date Received: 01/29/24 15:47

Lab Sample ID: 890-6057-7
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:40	CH	EET MID

Client Sample ID: FS031
 Date Collected: 01/29/24 10:07
 Date Received: 01/29/24 15:47

Lab Sample ID: 890-6057-8
 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			5.03 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 11:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 11:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 23:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 23:26	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:45	CH	EET MID

Client Sample ID: FS033
 Date Collected: 01/29/24 10:12
 Date Received: 01/29/24 15:47

Lab Sample ID: 890-6057-9
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 12:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 12:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 23:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 23:48	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:50	CH	EET MID

Client Sample ID: FS034
 Date Collected: 01/29/24 10:13
 Date Received: 01/29/24 15:47

Lab Sample ID: 890-6057-10
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 12:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 12:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 00:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 00:09	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 13:55	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS035

Lab Sample ID: 890-6057-11

Date Collected: 01/29/24 10:14

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 13:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 13:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 00:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 00:53	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 14:00	CH	EET MID

Client Sample ID: FS036

Lab Sample ID: 890-6057-12

Date Collected: 01/29/24 10:15

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 14:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 14:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 01:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 01:15	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 14:15	CH	EET MID

Client Sample ID: FS038

Lab Sample ID: 890-6057-13

Date Collected: 01/29/24 10:17

Matrix: Solid

Date Received: 01/29/24 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 14:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 14:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 01:37	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 01:37	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 14:25	CH	EET MID

Client Sample ID: FS039

Lab Sample ID: 890-6057-14

Date Collected: 01/29/24 10:18

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 14:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 14:50	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS039

Lab Sample ID: 890-6057-14

Date Collected: 01/29/24 10:18

Matrix: Solid

Date Received: 01/29/24 15:47

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			72768	02/09/24 01:59	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 01:59	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 14:40	CH	EET MID

Client Sample ID: FS040

Lab Sample ID: 890-6057-15

Date Collected: 01/29/24 10:19

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 15:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 15:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 02:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 02:21	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 14:45	CH	EET MID

Client Sample ID: FS045

Lab Sample ID: 890-6057-16

Date Collected: 01/29/24 10:23

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 15:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 15:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 02:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 02:43	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 14:50	CH	EET MID

Client Sample ID: FS046

Lab Sample ID: 890-6057-17

Date Collected: 01/29/24 10:26

Matrix: Solid

Date Received: 01/29/24 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 15:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 03:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 03:04	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS046

Lab Sample ID: 890-6057-17

Date Collected: 01/29/24 10:26

Matrix: Solid

Date Received: 01/29/24 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 14:55	CH	EET MID

Client Sample ID: FS051

Lab Sample ID: 890-6057-19

Date Collected: 01/29/24 10:41

Matrix: Solid

Date Received: 01/29/24 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 16:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 16:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 03:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 03:26	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 14:59	CH	EET MID

Client Sample ID: FS054

Lab Sample ID: 890-6057-20

Date Collected: 01/29/24 10:43

Matrix: Solid

Date Received: 01/29/24 15:47

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	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 16:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 16:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 03:48	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 03:48	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 15:04	CH	EET MID

Client Sample ID: FS055

Lab Sample ID: 890-6057-21

Date Collected: 01/29/24 10:44

Matrix: Solid

Date Received: 01/29/24 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			50.4 g	5 mL	72502	02/06/24 13:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 16:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/10/24 16:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/09/24 04:10	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72342	02/05/24 10:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/09/24 04:10	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72009	01/31/24 10:11	SMC	EET MID
Soluble	Analysis	300.0		1			72256	02/04/24 15:09	CH	EET MID
Total/NA	Analysis	D2216		1			72008	01/31/24 10:05	SMC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
 SDG: 03C2884002

Client Sample ID: FS056

Lab Sample ID: 890-6057-22

Date Collected: 01/29/24 10:46

Matrix: Solid

Date Received: 01/29/24 15:47

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	72700	02/09/24 08:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/09/24 16:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72984	02/09/24 16:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			72768	02/08/24 17:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 17:59	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72072	01/31/24 17:23	SMC	EET MID
Soluble	Analysis	300.0		10			72094	02/01/24 09:44	CH	EET MID

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
SDG: 03C2884002

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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
SDG: 03C2884002

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
D2216	Percent Moisture	ASTM	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Fracline (200)

Job ID: 890-6057-1
SDG: 03C2884002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6057-1	FS023	Solid	01/29/24 09:36	01/29/24 15:47
890-6057-2	FS024	Solid	01/29/24 09:38	01/29/24 15:47
890-6057-3	FS025	Solid	01/29/24 09:42	01/29/24 15:47
890-6057-4	FS027	Solid	01/29/24 09:48	01/29/24 15:47
890-6057-5	FS028	Solid	01/29/24 09:53	01/29/24 15:47
890-6057-6	FS029	Solid	01/29/24 09:58	01/29/24 15:47
890-6057-7	FS030	Solid	01/29/24 10:00	01/29/24 15:47
890-6057-8	FS031	Solid	01/29/24 10:07	01/29/24 15:47
890-6057-9	FS033	Solid	01/29/24 10:12	01/29/24 15:47
890-6057-10	FS034	Solid	01/29/24 10:13	01/29/24 15:47
890-6057-11	FS035	Solid	01/29/24 10:14	01/29/24 15:47
890-6057-12	FS036	Solid	01/29/24 10:15	01/29/24 15:47
890-6057-13	FS038	Solid	01/29/24 10:17	01/29/24 15:47
890-6057-14	FS039	Solid	01/29/24 10:18	01/29/24 15:47
890-6057-15	FS040	Solid	01/29/24 10:19	01/29/24 15:47
890-6057-16	FS045	Solid	01/29/24 10:23	01/29/24 15:47
890-6057-17	FS046	Solid	01/29/24 10:26	01/29/24 15:47
890-6057-19	FS051	Solid	01/29/24 10:41	01/29/24 15:47
890-6057-20	FS054	Solid	01/29/24 10:43	01/29/24 15:47
890-6057-21	FS055	Solid	01/29/24 10:44	01/29/24 15:47
890-6057-22	FS056	Solid	01/29/24 10:46	01/29/24 15:47

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



Environment Testing

Houston, TX (281) 240-2200, Dallas, TX (214) 902-0300
Atlanta, TX (432) 704-9440, San Antonio, TX (210) 508-3334
El Paso, TX (915) 565-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7590, Cleveland, NM (575) 953-1191
Little Rock, AR (501) 224-5050

Chain of Custody

Work Order No: 6057

Page 1 of 3

Project Manager: Tecoma Merrissey Bill to: (if different)

Company Name: Ensoform, LLC Company Name:

Address: 3122 National Parks HWY Address:

City, State ZIP: Walsbad, NM 88030 City, State ZIP:

Phone: 337-257-8307 Email: TMerrissey

Project Name: Desert Eagle Fuel Lab (Lab 3) Turn Around

Project Number: 03CASA84002 Routine Rush

Project Location: 32,5977th, July 18, 2018 Due Date: 5 Day

Sampler's Name: Mario Saucedo TAT returns the day received by the lab, if received by 4:30pm

PO #: Mario Saucedo

Program: USTPST PRP Brownfields RRC Superfund

State of Project:

Reporting Level: Level I Level II Level III PST/UST TRRP Level IV

Deliverables: EDD ADAPT Other

Work Order Comments:

SAMPLE RECEIPT

Temp Blank: Yes No

Thermometer ID: 110001

Wet Lab: Yes No

Sampler Custody Seals: Yes No

Temperature Reading: 0.4

Corrected Temperature: 0.2

Parameters

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grain Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes	Sample Comments
F5023	S	1/24/24	0936	1'	C	3		DI Water: H ₂ O	
F5024	S	1/24/24	0938	1'	C	2		Coor: Cool	Mach: Me
F5025	S	1/24/24	0942	1'	C	1		HCL: HC	HNO ₃
F5027	S	1/24/24	0948	1'	C	1		H ₂ SO ₄ : H ₂	NaOH: Na
F5028	S	1/24/24	0953	1'	C	1		H ₂ PO ₄ : HP	
F5029	S	1/24/24	0958	1'	C	2		NH ₄ SO ₄ : NABIS	
F5030	S	1/24/24	1000	1'	C	1		Na ₂ S ₂ O ₅ : NASO ₅	
F5031	S	1/24/24	1007	1'	C	1		Zn Acetate-NaOH: Zn	
F5033	S	1/24/24	1012	1'	C	1		NaOH-Acetic Acid: SAPP	
F5034	S	1/24/24	1013	1'	C	1			

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

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sp As Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hgt: 1831 / 245, 1 / 7470 / 7471

Notes: Signature of this document and relinquishment of sample constitutes a valid purchase order from client company to Eurofins Xerox, the affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xerox 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 Xerox. A minimum charge of \$35.00 will be applied to each sample and a charge of \$5.00 for each sample submitted for further testing. There shall be no refund unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	1/24/24 1505	<i>[Signature]</i>	<i>[Signature]</i>	1/24/24 1547



Environment Testing

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0000
Midland, TX (432) 794-5440, San Antonio, TX (210) 508-3334
El Paso, TX (915) 885-3443, Lubbock, TX (806) 794-1298
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 998-3199
Little Rock, AR (501) 224-0080

Work Order No: _____

Page 2 of 3

Project Manager: Talena Morrison Bill to: (if different)

Company Name: EnSolun, LLC Company Name:

Address: 3122 National Parks Hwy Address:

City, State ZIP: Galveston, NM 85820 City, State ZIP:

Phone: 337-257-8307 Email: tmorrison@ensolun.com

Project Name: Desert Eagle Fecal IVE (202) Turn Around

Project Number: 0362884003 I/F Routine Rush

Project Location: Box 54724, -10412048 Due Date: 5-Day

Sampler's Name: MARCO SANCAS TAT starts the day received by the lab, if received by 4:30pm

PO #: _____

Program: UST/PST PRP Brownfields RRC Superfund

State of Project: _____

Reporting: Level II Level III PST/UST TRRP Level IV

Deliverables: EDO ADAPT Other: _____

Work Order Comments: _____

SAMPLE RECEIPT

Samples Received Intact: Yes No Thermometer ID: _____

Cooler Custody Seals: Yes No N/A Correction Factor: _____

Sample Custody Seals: Yes No N/A Temperature Reading: _____

Total Condensers: _____ Corrected Temperature: _____

Wet Loss: _____ Yes No

Parameters: OTEX, TPH, Chlorides

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grain Comp.	# of Cont.	ANALYSIS REQUEST	Preservative Codes	Sample Comments
ES035	S	10/21/14	11	1'	2	2			
ES036	S	10/21/14	11	1'	2	2			
ES038	S	10/21/14	11	1'	2	2			
ES039	S	10/21/14	11	1'	2	2			
ES040	S	10/21/14	11	1'	2	2			
ES045	S	10/21/14	11	1'	2	2			
ES046	S	10/21/14	11	1'	2	2			
ES049	S	10/21/14	11	1'	2	2			
ES051	S	10/21/14	11	1'	2	2			
ES054	S	10/21/14	11	1'	2	2			

Total 200.7/6010 200.8/6020: BRCRA 13PCIA Texas 11 A1 S0 AS Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Ne Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: BRCRA S0 AS Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245 / 17470 / 17471

Notes: Signature of the document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xerox, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xerox 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 adulterated samples beyond the scope of Eurofins Xerox. A minimum charge of \$35.00 will be applied to each product and package of test materials. Sample collection and analysis by Eurofins Xerox, will not analyze. These items will be analyzed unless previously notified.

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

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



Environment Testing

Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 922-0300
Midland, TX (432) 764-5449 San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (879) 392-7590 Candia, NM (576) 965-3159
Little Rock, AR (501) 224-9050

Work Order No: _____

Page 3 of 3

Project Manager: Taloma Morrissy Bill to (if different):
 Company Name: ENSOLEM, LLC Company Name:
 Address: 3122 National Park's Hwy Address:
 City, State ZIP: Carlsbad, NM 88820 City, State ZIP:
 Phone: 337-257-8307 Email: TMorrissey@ensolem.com

Project Number: 03CR884003 Routine Rush
 Project Location: 3359729-10412018 Due Date: 5-Day
 Sampler's Name: MORRISSEY, T TAT starts the day received by the lab, if received by 4:30pm
 PO #: _____

Work Order Comments:
 Program: UST/PST PRP Brownfields RSC Superfund
 State of Project:
 Reporting: Level II Level III PST/UST TRRP Level IV
 Deliverables: EDD ADAPT Other _____

Project Name: Resit Eagle Field Line (see Turn Around
 Project Number: 03CR884003 Routine Rush
 Project Location: 3359729-10412018 Due Date: 5-Day
 Sampler's Name: MORRISSEY, T TAT starts the day received by the lab, if received by 4:30pm
 PO #: _____

SAMPLE RECEIPT
 Samples Received Intact: Yes No Thermometer ID: 11111111
 Cooler Custody Seals: Yes No Checksum Factor: 0.0
 Sample Custody Seals: Yes No Temperature Reading: 0.0
 Total Containers: _____ Corrected Temperature: 0.0

ANALYSIS REQUEST

Preservative Codes
 None: DI Water: H₂O
 Cool: Cool
 HCL: HCl
 H₂SO₄: H₂SO₄
 H₂SO₄/HF: H₂SO₄/HF
 NaHSO₄: NaHSO₄
 NaHSO₄/NABIS: NaHSO₄/NABIS
 Na₂S₂O₈: Na₂S₂O₈
 Zn Acetate+NaOH: Zn Acetate+NaOH
 NaOH/Ascorbic Acid: NaOH/Ascorbic Acid

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
FS055	S	10/24/18	10:40	1'	C	2	BTEX	
FS056	S	10/24/18	10:46	1'	C	2	TAH Chlorides	

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

Method: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, the affiliate and subcontractor. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$45.00 will be applied to each analysis. A charge of \$15.00 will be applied to each sample submitted to Eurofins Xeno. Our report will be emailed unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	<u>Chen</u>	<u>10/24/18</u>	<u>Burns</u>	<u>10/29/18</u>	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6057-1

SDG Number: 03C2884002

Login Number: 6057

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6057-1

SDG Number: 03C2884002

Login Number: 6057

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/31/24 12:23 PM

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

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/5/2024 2:38:48 PM

JOB DESCRIPTION

Desert Eagle Frac Line (200)
03C2884002

JOB NUMBER

890-6058-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/5/2024 2:38:48 PM

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

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

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Laboratory Job ID: 890-6058-1
SDG: 03C2884002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	18
Lab Chronicle	21
Certification Summary	24
Method Summary	25
Sample Summary	26
Chain of Custody	27
Receipt Checklists	28

Definitions/Glossary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (200)

Job ID: 890-6058-1

Job ID: 890-6058-1

Eurofins Carlsbad

Job Narrative 890-6058-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/29/2024 3:47 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 0.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS026 (890-6058-1), FS032 (890-6058-2), FS037 (890-6058-3), FS041 (890-6058-4), FS043 (890-6058-5), FS044 (890-6058-6) and FS057 (890-6058-7).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-72049 and analytical batch 880-72043 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72179 and analytical batch 880-72191 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS032 (890-6058-2), FS037 (890-6058-3), FS041 (890-6058-4), FS043 (890-6058-5), FS057 (890-6058-7) and (890-6058-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-72179 and analytical batch 880-72191 were outside control limits. Non-homogeneity is 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.

HPLC/IC

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Client Sample ID: FS026

Lab Sample ID: 890-6058-1

Date Collected: 01/29/24 09:45

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 06:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 06:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 06:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/31/24 12:30	02/01/24 06:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 06:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/31/24 12:30	02/01/24 06:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	01/31/24 12:30	02/01/24 06:34	1
1,4-Difluorobenzene (Surr)	104		70 - 130	01/31/24 12:30	02/01/24 06:34	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/01/24 06:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			02/02/24 10:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	50.2		mg/Kg		02/01/24 16:21	02/02/24 10:29	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		02/01/24 16:21	02/02/24 10:29	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		02/01/24 16:21	02/02/24 10:29	1
Total TPH	<50.2	U	50.2		mg/Kg		02/01/24 16:21	02/02/24 10:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130	02/01/24 16:21	02/02/24 10:29	1
o-Terphenyl	105		70 - 130	02/01/24 16:21	02/02/24 10:29	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	959		4.98		mg/Kg			01/31/24 16:07	1

Client Sample ID: FS032

Lab Sample ID: 890-6058-2

Date Collected: 01/29/24 10:11

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/31/24 12:30	02/01/24 06:54	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/31/24 12:30	02/01/24 06:54	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/31/24 12:30	02/01/24 06:54	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/31/24 12:30	02/01/24 06:54	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/31/24 12:30	02/01/24 06:54	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/31/24 12:30	02/01/24 06:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	01/31/24 12:30	02/01/24 06:54	1
1,4-Difluorobenzene (Surr)	107		70 - 130	01/31/24 12:30	02/01/24 06:54	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Client Sample ID: FS032

Lab Sample ID: 890-6058-2

Date Collected: 01/29/24 10:11

Matrix: Solid

Date Received: 01/29/24 15:47

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/01/24 06:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/02/24 11:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/01/24 16:21	02/02/24 11:35	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/01/24 16:21	02/02/24 11:35	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/01/24 16:21	02/02/24 11:35	1
Total TPH	<50.1	U	50.1		mg/Kg		02/01/24 16:21	02/02/24 11:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130				02/01/24 16:21	02/02/24 11:35	1
o-Terphenyl	107		70 - 130				02/01/24 16:21	02/02/24 11:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	530		4.99		mg/Kg			01/31/24 15:18	1

Client Sample ID: FS037

Lab Sample ID: 890-6058-3

Date Collected: 01/29/24 10:16

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 07:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 07:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 07:14	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/31/24 12:30	02/01/24 07:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 07:14	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/31/24 12:30	02/01/24 07:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130				01/31/24 12:30	02/01/24 07:14	1
1,4-Difluorobenzene (Surr)	106		70 - 130				01/31/24 12:30	02/01/24 07:14	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/01/24 07:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/02/24 11:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/01/24 16:21	02/02/24 11:57	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Client Sample ID: FS037

Lab Sample ID: 890-6058-3

Date Collected: 01/29/24 10:16

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/01/24 16:21	02/02/24 11:57	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/01/24 16:21	02/02/24 11:57	1
Total TPH	<50.3	U	50.3		mg/Kg		02/01/24 16:21	02/02/24 11:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	138	S1+	70 - 130				02/01/24 16:21	02/02/24 11:57	1
o-Terphenyl	113		70 - 130				02/01/24 16:21	02/02/24 11:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	325		5.04		mg/Kg			01/31/24 15:24	1

Client Sample ID: FS041

Lab Sample ID: 890-6058-4

Date Collected: 01/29/24 10:20

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/31/24 12:30	02/01/24 10:47	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/31/24 12:30	02/01/24 10:47	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/31/24 12:30	02/01/24 10:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/31/24 12:30	02/01/24 10:47	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/31/24 12:30	02/01/24 10:47	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/31/24 12:30	02/01/24 10:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130				01/31/24 12:30	02/01/24 10:47	1
1,4-Difluorobenzene (Surr)	102		70 - 130				01/31/24 12:30	02/01/24 10:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/01/24 10:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/02/24 12:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/01/24 16:21	02/02/24 12:18	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/01/24 16:21	02/02/24 12:18	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/01/24 16:21	02/02/24 12:18	1
Total TPH	<50.3	U	50.3		mg/Kg		02/01/24 16:21	02/02/24 12:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	S1+	70 - 130				02/01/24 16:21	02/02/24 12:18	1
o-Terphenyl	124		70 - 130				02/01/24 16:21	02/02/24 12:18	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Client Sample ID: FS041

Lab Sample ID: 890-6058-4

Date Collected: 01/29/24 10:20

Matrix: Solid

Date Received: 01/29/24 15:47

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	218		5.01		mg/Kg			01/31/24 15:31	1

Client Sample ID: FS043

Lab Sample ID: 890-6058-5

Date Collected: 01/29/24 13:00

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 11:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 11:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 11:07	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/31/24 12:30	02/01/24 11:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 11:07	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/31/24 12:30	02/01/24 11:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	01/31/24 12:30	02/01/24 11:07	1
1,4-Difluorobenzene (Surr)	100		70 - 130	01/31/24 12:30	02/01/24 11:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/01/24 11:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/02/24 12:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/01/24 16:21	02/02/24 12:39	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/01/24 16:21	02/02/24 12:39	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/01/24 16:21	02/02/24 12:39	1
Total TPH	<50.1	U	50.1		mg/Kg		02/01/24 16:21	02/02/24 12:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	198	S1+	70 - 130	02/01/24 16:21	02/02/24 12:39	1
o-Terphenyl	161	S1+	70 - 130	02/01/24 16:21	02/02/24 12:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	884		4.98		mg/Kg			01/31/24 15:38	1

Client Sample ID: FS044

Lab Sample ID: 890-6058-6

Date Collected: 01/29/24 13:03

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/24 12:30	02/01/24 11:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/24 12:30	02/01/24 11:28	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Client Sample ID: FS044

Lab Sample ID: 890-6058-6

Date Collected: 01/29/24 13:03

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/24 12:30	02/01/24 11:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/24 12:30	02/01/24 11:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/24 12:30	02/01/24 11:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/24 12:30	02/01/24 11:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130				01/31/24 12:30	02/01/24 11:28	1
1,4-Difluorobenzene (Surr)	105		70 - 130				01/31/24 12:30	02/01/24 11:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/01/24 11:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/02/24 13:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/01/24 16:21	02/02/24 13:01	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/01/24 16:21	02/02/24 13:01	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/01/24 16:21	02/02/24 13:01	1
Total TPH	<50.4	U	50.4		mg/Kg		02/01/24 16:21	02/02/24 13:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				02/01/24 16:21	02/02/24 13:01	1
o-Terphenyl	103		70 - 130				02/01/24 16:21	02/02/24 13:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	76.0		4.97		mg/Kg			01/31/24 15:45	1

Client Sample ID: FS057

Lab Sample ID: 890-6058-7

Date Collected: 01/29/24 10:47

Matrix: Solid

Date Received: 01/29/24 15:47

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/31/24 12:30	02/01/24 11:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/24 12:30	02/01/24 11:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/24 12:30	02/01/24 11:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/24 12:30	02/01/24 11:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/24 12:30	02/01/24 11:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/24 12:30	02/01/24 11:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130				01/31/24 12:30	02/01/24 11:48	1
1,4-Difluorobenzene (Surr)	104		70 - 130				01/31/24 12:30	02/01/24 11:48	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Client Sample ID: FS057

Lab Sample ID: 890-6058-7

Date Collected: 01/29/24 10:47

Matrix: Solid

Date Received: 01/29/24 15:47

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/01/24 11:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/02/24 13:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/01/24 16:21	02/02/24 13:23	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/01/24 16:21	02/02/24 13:23	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/01/24 16:21	02/02/24 13:23	1
Total TPH	<50.5	U	50.5		mg/Kg		02/01/24 16:21	02/02/24 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130	02/01/24 16:21	02/02/24 13:23	1
o-Terphenyl	113		70 - 130	02/01/24 16:21	02/02/24 13:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	746		4.97		mg/Kg			01/31/24 15:52	1

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-38705-A-1-A MS	Matrix Spike	111	99
880-38705-A-1-B MSD	Matrix Spike Duplicate	104	95
890-6058-1	FS026	112	104
890-6058-2	FS032	111	107
890-6058-3	FS037	121	106
890-6058-4	FS041	111	102
890-6058-5	FS043	119	100
890-6058-6	FS044	118	105
890-6058-7	FS057	116	104
LCS 880-72049/1-A	Lab Control Sample	99	96
LCSD 880-72049/2-A	Lab Control Sample Dup	102	101
MB 880-72014/5-A	Method Blank	116	115
MB 880-72049/5-A	Method Blank	123	112

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-6058-1	FS026	130	105
890-6058-1 MS	FS026	129	93
890-6058-1 MSD	FS026	135 S1+	100
890-6058-2	FS032	133 S1+	107
890-6058-3	FS037	138 S1+	113
890-6058-4	FS041	154 S1+	124
890-6058-5	FS043	198 S1+	161 S1+
890-6058-6	FS044	126	103
890-6058-7	FS057	142 S1+	113
LCS 880-72179/2-A	Lab Control Sample	76	74
LCSD 880-72179/3-A	Lab Control Sample Dup	90	85
MB 880-72179/1-A	Method Blank	155 S1+	131 S1+

Surrogate Legend
 1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72014/5-A
 Matrix: Solid
 Analysis Batch: 72043

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72014

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/24 10:35	01/31/24 16:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/24 10:35	01/31/24 16:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/24 10:35	01/31/24 16:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/24 10:35	01/31/24 16:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/24 10:35	01/31/24 16:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/24 10:35	01/31/24 16:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130				01/31/24 10:35	01/31/24 16:19	1
1,4-Difluorobenzene (Surr)	115		70 - 130				01/31/24 10:35	01/31/24 16:19	1

Lab Sample ID: MB 880-72049/5-A
 Matrix: Solid
 Analysis Batch: 72043

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72049

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 04:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 04:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 04:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/24 12:30	02/01/24 04:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/24 12:30	02/01/24 04:23	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/24 12:30	02/01/24 04:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130				01/31/24 12:30	02/01/24 04:23	1
1,4-Difluorobenzene (Surr)	112		70 - 130				01/31/24 12:30	02/01/24 04:23	1

Lab Sample ID: LCS 880-72049/1-A
 Matrix: Solid
 Analysis Batch: 72043

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72049

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.100	0.08839		mg/Kg		88	70 - 130
Ethylbenzene	0.100	0.09747		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.1757		mg/Kg		88	70 - 130
o-Xylene	0.100	0.08573		mg/Kg		86	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	99		70 - 130				
1,4-Difluorobenzene (Surr)	96		70 - 130				

Lab Sample ID: LCSD 880-72049/2-A
 Matrix: Solid
 Analysis Batch: 72043

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72049

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Benzene	0.100	0.08628		mg/Kg		86	70 - 130	4	35

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

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

Lab Sample ID: LCSD 880-72049/2-A
 Matrix: Solid
 Analysis Batch: 72043

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72049

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.08272		mg/Kg		83	70 - 130	7	35	
Ethylbenzene	0.100	0.09179		mg/Kg		92	70 - 130	6	35	
m-Xylene & p-Xylene	0.200	0.1827		mg/Kg		91	70 - 130	4	35	
o-Xylene	0.100	0.09160		mg/Kg		92	70 - 130	7	35	
		LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits							
4-Bromofluorobenzene (Surr)	102		70 - 130							
1,4-Difluorobenzene (Surr)	101		70 - 130							

Lab Sample ID: 880-38705-A-1-A MS
 Matrix: Solid
 Analysis Batch: 72043

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 72049

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Benzene	<0.00199	U	0.0996	0.07247		mg/Kg		73	70 - 130			
Toluene	<0.00199	U F1	0.0996	0.05707	F1	mg/Kg		57	70 - 130			
Ethylbenzene	<0.00199	U F1 F2	0.0996	0.05554	F1	mg/Kg		56	70 - 130			
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.199	0.1084	F1	mg/Kg		54	70 - 130			
o-Xylene	<0.00199	U F1 F2	0.0996	0.05170	F1	mg/Kg		52	70 - 130			
		MS	MS									
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	111		70 - 130									
1,4-Difluorobenzene (Surr)	99		70 - 130									

Lab Sample ID: 880-38705-A-1-B MSD
 Matrix: Solid
 Analysis Batch: 72043

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 72049

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Benzene	<0.00199	U	0.0990	0.07691		mg/Kg		78	70 - 130	6	35	
Toluene	<0.00199	U F1	0.0990	0.05489	F1	mg/Kg		55	70 - 130	4	35	
Ethylbenzene	<0.00199	U F1 F2	0.0990	0.03756	F1 F2	mg/Kg		38	70 - 130	39	35	
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.198	0.07358	F1 F2	mg/Kg		37	70 - 130	38	35	
o-Xylene	<0.00199	U F1 F2	0.0990	0.03558	F1 F2	mg/Kg		36	70 - 130	37	35	
		MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	104		70 - 130									
1,4-Difluorobenzene (Surr)	95		70 - 130									

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

Lab Sample ID: MB 880-72179/1-A
 Matrix: Solid
 Analysis Batch: 72191

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72179

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/01/24 16:21	02/02/24 08:02	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

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

Lab Sample ID: MB 880-72179/1-A
 Matrix: Solid
 Analysis Batch: 72191

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72179

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/01/24 16:21	02/02/24 08:02	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/01/24 16:21	02/02/24 08:02	1
Total TPH	<50.0	U	50.0		mg/Kg		02/01/24 16:21	02/02/24 08:02	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	155	S1+	70 - 130	02/01/24 16:21	02/02/24 08:02	1
o-Terphenyl	131	S1+	70 - 130	02/01/24 16:21	02/02/24 08:02	1

Lab Sample ID: LCS 880-72179/2-A
 Matrix: Solid
 Analysis Batch: 72191

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72179

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	752.5		mg/Kg		75	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	76		70 - 130
o-Terphenyl	74		70 - 130

Lab Sample ID: LCSD 880-72179/3-A
 Matrix: Solid
 Analysis Batch: 72191

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72179

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	870.5		mg/Kg		87	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	825.2		mg/Kg		83	70 - 130	9	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	90		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 890-6058-1 MS
 Matrix: Solid
 Analysis Batch: 72191

Client Sample ID: FS026
 Prep Type: Total/NA
 Prep Batch: 72179

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	<50.2	U	1010	1115		mg/Kg		108	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	129		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6058-1 MS
 Matrix: Solid
 Analysis Batch: 72191

Client Sample ID: FS026
 Prep Type: Total/NA
 Prep Batch: 72179

Surrogate	%Recovery	MS MS Qualifier	Limits
<i>o</i> -Terphenyl	93		70 - 130

Lab Sample ID: 890-6058-1 MSD
 Matrix: Solid
 Analysis Batch: 72191

Client Sample ID: FS026
 Prep Type: Total/NA
 Prep Batch: 72179

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	1010	1375	F1	mg/Kg		132	70 - 130	3	20	
Diesel Range Organics (Over C10-C28)	<50.2	U	1010	1181		mg/Kg		115	70 - 130	6	20	

Surrogate	%Recovery	MSD MSD Qualifier	Limits
1-Chlorooctane	135	S1+	70 - 130
<i>o</i> -Terphenyl	100		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71891/1-A
 Matrix: Solid
 Analysis Batch: 71973

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/30/24 15:27	1

Lab Sample ID: LCS 880-71891/2-A
 Matrix: Solid
 Analysis Batch: 71973

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	253.3		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-71891/3-A
 Matrix: Solid
 Analysis Batch: 71973

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	250	253.0		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-38625-A-21-B MS
 Matrix: Solid
 Analysis Batch: 71973

Client Sample ID: Matrix Spike
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	85.6		253	337.5		mg/Kg		100	90 - 110

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-38625-A-21-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 71973

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	85.6		253	340.3		mg/Kg		101	90 - 110	1	20

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

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

GC VOA

Prep Batch: 72014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-72014/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 72043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-1	FS026	Total/NA	Solid	8021B	72049
890-6058-2	FS032	Total/NA	Solid	8021B	72049
890-6058-3	FS037	Total/NA	Solid	8021B	72049
890-6058-4	FS041	Total/NA	Solid	8021B	72049
890-6058-5	FS043	Total/NA	Solid	8021B	72049
890-6058-6	FS044	Total/NA	Solid	8021B	72049
890-6058-7	FS057	Total/NA	Solid	8021B	72049
MB 880-72014/5-A	Method Blank	Total/NA	Solid	8021B	72014
MB 880-72049/5-A	Method Blank	Total/NA	Solid	8021B	72049
LCS 880-72049/1-A	Lab Control Sample	Total/NA	Solid	8021B	72049
LCS 880-72049/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72049
880-38705-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	72049
880-38705-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	72049

Prep Batch: 72049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-1	FS026	Total/NA	Solid	5035	
890-6058-2	FS032	Total/NA	Solid	5035	
890-6058-3	FS037	Total/NA	Solid	5035	
890-6058-4	FS041	Total/NA	Solid	5035	
890-6058-5	FS043	Total/NA	Solid	5035	
890-6058-6	FS044	Total/NA	Solid	5035	
890-6058-7	FS057	Total/NA	Solid	5035	
MB 880-72049/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72049/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 880-72049/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-38705-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-38705-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 72107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-1	FS026	Total/NA	Solid	Total BTEX	
890-6058-2	FS032	Total/NA	Solid	Total BTEX	
890-6058-3	FS037	Total/NA	Solid	Total BTEX	
890-6058-4	FS041	Total/NA	Solid	Total BTEX	
890-6058-5	FS043	Total/NA	Solid	Total BTEX	
890-6058-6	FS044	Total/NA	Solid	Total BTEX	
890-6058-7	FS057	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-1	FS026	Total/NA	Solid	8015NM Prep	
890-6058-2	FS032	Total/NA	Solid	8015NM Prep	
890-6058-3	FS037	Total/NA	Solid	8015NM Prep	
890-6058-4	FS041	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
SDG: 03C2884002

GC Semi VOA (Continued)

Prep Batch: 72179 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-5	FS043	Total/NA	Solid	8015NM Prep	
890-6058-6	FS044	Total/NA	Solid	8015NM Prep	
890-6058-7	FS057	Total/NA	Solid	8015NM Prep	
MB 880-72179/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72179/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72179/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6058-1 MS	FS026	Total/NA	Solid	8015NM Prep	
890-6058-1 MSD	FS026	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-1	FS026	Total/NA	Solid	8015B NM	72179
890-6058-2	FS032	Total/NA	Solid	8015B NM	72179
890-6058-3	FS037	Total/NA	Solid	8015B NM	72179
890-6058-4	FS041	Total/NA	Solid	8015B NM	72179
890-6058-5	FS043	Total/NA	Solid	8015B NM	72179
890-6058-6	FS044	Total/NA	Solid	8015B NM	72179
890-6058-7	FS057	Total/NA	Solid	8015B NM	72179
MB 880-72179/1-A	Method Blank	Total/NA	Solid	8015B NM	72179
LCS 880-72179/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72179
LCSD 880-72179/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72179
890-6058-1 MS	FS026	Total/NA	Solid	8015B NM	72179
890-6058-1 MSD	FS026	Total/NA	Solid	8015B NM	72179

Analysis Batch: 72391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-1	FS026	Total/NA	Solid	8015 NM	
890-6058-2	FS032	Total/NA	Solid	8015 NM	
890-6058-3	FS037	Total/NA	Solid	8015 NM	
890-6058-4	FS041	Total/NA	Solid	8015 NM	
890-6058-5	FS043	Total/NA	Solid	8015 NM	
890-6058-6	FS044	Total/NA	Solid	8015 NM	
890-6058-7	FS057	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 71891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-1	FS026	Soluble	Solid	DI Leach	
890-6058-2	FS032	Soluble	Solid	DI Leach	
890-6058-3	FS037	Soluble	Solid	DI Leach	
890-6058-4	FS041	Soluble	Solid	DI Leach	
890-6058-5	FS043	Soluble	Solid	DI Leach	
890-6058-6	FS044	Soluble	Solid	DI Leach	
890-6058-7	FS057	Soluble	Solid	DI Leach	
MB 880-71891/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71891/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71891/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38625-A-21-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-38625-A-21-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
SDG: 03C2884002

HPLC/IC

Analysis Batch: 71973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6058-1	FS026	Soluble	Solid	300.0	71891
890-6058-2	FS032	Soluble	Solid	300.0	71891
890-6058-3	FS037	Soluble	Solid	300.0	71891
890-6058-4	FS041	Soluble	Solid	300.0	71891
890-6058-5	FS043	Soluble	Solid	300.0	71891
890-6058-6	FS044	Soluble	Solid	300.0	71891
890-6058-7	FS057	Soluble	Solid	300.0	71891
MB 880-71891/1-A	Method Blank	Soluble	Solid	300.0	71891
LCS 880-71891/2-A	Lab Control Sample	Soluble	Solid	300.0	71891
LCSD 880-71891/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71891
880-38625-A-21-B MS	Matrix Spike	Soluble	Solid	300.0	71891
880-38625-A-21-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	71891

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

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Client Sample ID: FS026

Lab Sample ID: 890-6058-1

Date Collected: 01/29/24 09:45

Matrix: Solid

Date Received: 01/29/24 15:47

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	72049	01/31/24 12:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72043	02/01/24 06:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72107	02/01/24 06:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			72391	02/02/24 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 10:29	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71891	01/31/24 13:05	SMC	EET MID
Soluble	Analysis	300.0		1			71973	01/31/24 16:07	CH	EET MID

Client Sample ID: FS032

Lab Sample ID: 890-6058-2

Date Collected: 01/29/24 10:11

Matrix: Solid

Date Received: 01/29/24 15:47

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	72049	01/31/24 12:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72043	02/01/24 06:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72107	02/01/24 06:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			72391	02/02/24 11:35	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 11:35	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	71891	01/31/24 13:05	SMC	EET MID
Soluble	Analysis	300.0		1			71973	01/31/24 15:18	CH	EET MID

Client Sample ID: FS037

Lab Sample ID: 890-6058-3

Date Collected: 01/29/24 10:16

Matrix: Solid

Date Received: 01/29/24 15:47

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	72049	01/31/24 12:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72043	02/01/24 07:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72107	02/01/24 07:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			72391	02/02/24 11:57	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 11:57	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	71891	01/31/24 13:05	SMC	EET MID
Soluble	Analysis	300.0		1			71973	01/31/24 15:24	CH	EET MID

Client Sample ID: FS041

Lab Sample ID: 890-6058-4

Date Collected: 01/29/24 10:20

Matrix: Solid

Date Received: 01/29/24 15:47

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	72049	01/31/24 12:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72043	02/01/24 10:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72107	02/01/24 10:47	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
 SDG: 03C2884002

Client Sample ID: FS041
 Date Collected: 01/29/24 10:20
 Date Received: 01/29/24 15:47

Lab Sample ID: 890-6058-4
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			72391	02/02/24 12:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 12:18	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	71891	01/31/24 13:05	SMC	EET MID
Soluble	Analysis	300.0		1			71973	01/31/24 15:31	CH	EET MID

Client Sample ID: FS043
 Date Collected: 01/29/24 13:00
 Date Received: 01/29/24 15:47

Lab Sample ID: 890-6058-5
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	72049	01/31/24 12:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72043	02/01/24 11:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72107	02/01/24 11:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			72391	02/02/24 12:39	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 12:39	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	71891	01/31/24 13:05	SMC	EET MID
Soluble	Analysis	300.0		1			71973	01/31/24 15:38	CH	EET MID

Client Sample ID: FS044
 Date Collected: 01/29/24 13:03
 Date Received: 01/29/24 15:47

Lab Sample ID: 890-6058-6
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	72049	01/31/24 12:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72043	02/01/24 11:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72107	02/01/24 11:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			72391	02/02/24 13:01	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 13:01	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	71891	01/31/24 13:05	SMC	EET MID
Soluble	Analysis	300.0		1			71973	01/31/24 15:45	CH	EET MID

Client Sample ID: FS057
 Date Collected: 01/29/24 10:47
 Date Received: 01/29/24 15:47

Lab Sample ID: 890-6058-7
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	72049	01/31/24 12:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72043	02/01/24 11:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72107	02/01/24 11:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			72391	02/02/24 13:23	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 13:23	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
SDG: 03C2884002

Client Sample ID: FS057

Lab Sample ID: 890-6058-7

Date Collected: 01/29/24 10:47

Matrix: Solid

Date Received: 01/29/24 15:47

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	71891	01/31/24 13:05	SMC	EET MID
Soluble	Analysis	300.0		1			71973	01/31/24 15:52	CH	EET MID

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
SDG: 03C2884002

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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
SDG: 03C2884002

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6058-1
SDG: 03C2884002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6058-1	FS026	Solid	01/29/24 09:45	01/29/24 15:47
890-6058-2	FS032	Solid	01/29/24 10:11	01/29/24 15:47
890-6058-3	FS037	Solid	01/29/24 10:16	01/29/24 15:47
890-6058-4	FS041	Solid	01/29/24 10:20	01/29/24 15:47
890-6058-5	FS043	Solid	01/29/24 13:00	01/29/24 15:47
890-6058-6	FS044	Solid	01/29/24 13:03	01/29/24 15:47
890-6058-7	FS057	Solid	01/29/24 10:47	01/29/24 15:47

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



Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 802-0300
Midland, TX (432) 706-5440, San Antonio, TX (210) 608-8334
El Paso, TX (979) 585-2443, Lubbock, TX (806) 794-1285
Hobbs, NM (575) 582-7500, Carlsbad, NM (575) 868-3199
Little Rock, AR (501) 224-8090

Chain of Custody

Work Order No: _____

Page 1 of 1

Project Manager:	Tatema Morrissey	Bill to: (if different)	
Company Name:	Enselum, LLC	Company Name:	
Address:	3132 North Loop West, Suite 400	Address:	
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	
Phone:	337-257-8307	Email:	T.Morrissey@enselum.com
Project Name:	Desert Eagle Blvd Line Item Turn Around		
Project Number:	3362884003	<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush	
Project Location:	31,597794, -104,18048	Due Date:	24-47
Sampler's Name:	MAD TO S&S 5.15	TAT states the day received by the lab, if received by 4:30pm	
PO #:			

Program:	LISTPST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RFC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting Level:	Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> OR-er <input type="checkbox"/>

SAMPLE RECEIPT

Samples Received Inlet: Yes No Thermometer ID: 11000

Cockler Custody Seal: Yes No Correction Factor: 0.0

Sample Custody Seal: Yes No N/A Temperature Reading: 0.0

Total Containers: _____ Combed Temperature: 0.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grav Cont	# of Cont	ANALYSIS REQUEST	Preservative Codes
F5026		12/28/24	0945	1'		3	BTEX	None; NO
F5032		12/28/24	1011	1'		2	TPH	DI Water; H ₂ O
F5037		12/28/24	1016	1'		1	Chlorides	Coole; Cool
F5041		12/28/24	1030	1'		1		HCL; HC
F5043		12/28/24	1300	1'		1		H ₂ SO ₄ ; H ₂
F5044		12/28/24	1303	1'		1		H ₂ PO ₄ ; HP
F5057		12/28/24	1017	1'		1		NaHSO ₄ ; NABIS
								Na ₂ S ₂ O ₅ ; NaSO ₃
								Zn Acetate; NaOAc; Zn
								NaOH; Acetic Acid; SAPC

Total 200.7 / 6010 200.8 / 6020:										
Circle Method(s) and Metal(s) to be analyzed										
BRORA 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 Ni Sr Ti Sn U V Zn										
TCLP / SPLP 6010: BRORA Sb As Ba Ba Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1831 / 245.1 / 7470 / 7471										

Notice: Signatures of this document and receiptment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Samples Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses and expenses are not covered by the contract. Eurofins Xeno, its affiliates and subcontractors, shall not be liable for any damages, including consequential damages, arising out of or from the use of the samples or the results of the analysis. These terms will be enforced unless previously negotiated.

Retrieved by: (Signature) _____ Received by: (Signature) _____ Date/Time _____

Retrieved by: (Signature) _____ Received by: (Signature) _____ Date/Time _____

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6058-1

SDG Number: 03C2884002

Login Number: 6058

List Source: Eurofins Carlsbad

List Number: 1

Creator: Lopez, Abraham

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6058-1

SDG Number: 03C2884002

Login Number: 6058

List Source: Eurofins Midland

List Number: 2

List Creation: 01/31/24 12:23 PM

Creator: Rodriguez, Leticia

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	

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/9/2024 9:53:28 AM

JOB DESCRIPTION

Desert Eagle Frac Line (200)
03C2884002

JOB NUMBER

890-6076-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/9/2024 9:53:28 AM

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

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Laboratory Job ID: 890-6076-1
SDG: 03C2884002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	17
Lab Chronicle	19
Certification Summary	21
Method Summary	22
Sample Summary	23
Chain of Custody	24
Receipt Checklists	25

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
SDG: 03C2884002

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (200)

Job ID: 890-6076-1

Job ID: 890-6076-1

Eurofins Carlsbad

Job Narrative 890-6076-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/31/2024 8:58 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS002 (890-6076-1), FS009 (890-6076-2), FS012 (890-6076-3), FS063 (890-6076-4), FS074 (890-6076-5) and FS077 (890-6076-6).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-72659 and analytical batch 880-72586 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72179 and analytical batch 880-72191 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS002 (890-6076-1), FS009 (890-6076-2), FS012 (890-6076-3), FS063 (890-6076-4), FS074 (890-6076-5), FS077 (890-6076-6) and (890-6058-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike duplicate (MSD) recoveries for preparation batch 880-72179 and analytical batch 880-72191 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-72191 recovered below the lower control limit for Diesel Range Organics (Over C10-C28). An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-72191/31).

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72072 and analytical batch 880-72094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72072 and analytical batch 880-72094 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (200)

Job ID: 890-6076-1

Job ID: 890-6076-1 (Continued)

Eurofins Carlsbad

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

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Client Sample ID: FS002

Lab Sample ID: 890-6076-1

Date Collected: 01/30/24 10:37

Matrix: Solid

Date Received: 01/31/24 08:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *-	0.00202	mg/Kg		02/08/24 13:05	02/08/24 17:16	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/08/24 13:05	02/08/24 17:16	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/08/24 13:05	02/08/24 17:16	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/08/24 13:05	02/08/24 17:16	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/08/24 13:05	02/08/24 17:16	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/08/24 13:05	02/08/24 17:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	02/08/24 13:05	02/08/24 17:16	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/08/24 13:05	02/08/24 17:16	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/08/24 17:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			02/02/24 13:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/01/24 16:21	02/02/24 13:44	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/01/24 16:21	02/02/24 13:44	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/01/24 16:21	02/02/24 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	02/01/24 16:21	02/02/24 13:44	1
o-Terphenyl	111		70 - 130	02/01/24 16:21	02/02/24 13:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	732	F1	50.5	mg/Kg			02/02/24 08:58	10

Client Sample ID: FS009

Lab Sample ID: 890-6076-2

Date Collected: 01/30/24 10:45

Matrix: Solid

Date Received: 01/31/24 08:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *-	0.00200	mg/Kg		02/08/24 13:05	02/08/24 17:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 17:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 17:36	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/08/24 13:05	02/08/24 17:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 17:36	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/08/24 13:05	02/08/24 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	02/08/24 13:05	02/08/24 17:36	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Client Sample ID: FS009

Lab Sample ID: 890-6076-2

Date Collected: 01/30/24 10:45

Matrix: Solid

Date Received: 01/31/24 08:58

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130	02/08/24 13:05	02/08/24 17:36	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/08/24 17:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/02/24 14:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/01/24 16:21	02/02/24 14:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/24 16:21	02/02/24 14:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/24 16:21	02/02/24 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	143	S1+	70 - 130	02/01/24 16:21	02/02/24 14:06	1
o-Terphenyl	115		70 - 130	02/01/24 16:21	02/02/24 14:06	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	364		50.4	mg/Kg			02/02/24 09:12	10

Client Sample ID: FS012

Lab Sample ID: 890-6076-3

Date Collected: 01/30/24 10:56

Matrix: Solid

Date Received: 01/31/24 08:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *	0.00200	mg/Kg		02/08/24 13:05	02/08/24 17:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 17:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 17:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/08/24 13:05	02/08/24 17:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 17:57	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/08/24 13:05	02/08/24 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	02/08/24 13:05	02/08/24 17:57	1
1,4-Difluorobenzene (Surr)	101		70 - 130	02/08/24 13:05	02/08/24 17:57	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/08/24 17:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/02/24 14:28	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Client Sample ID: FS012

Lab Sample ID: 890-6076-3

Date Collected: 01/30/24 10:56

Matrix: Solid

Date Received: 01/31/24 08:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/01/24 16:21	02/02/24 14:28	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/01/24 16:21	02/02/24 14:28	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/01/24 16:21	02/02/24 14:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	160	S1+	70 - 130	02/01/24 16:21	02/02/24 14:28	1
o-Terphenyl	128		70 - 130	02/01/24 16:21	02/02/24 14:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	620		49.6	mg/Kg			02/02/24 09:17	10

Client Sample ID: FS063

Lab Sample ID: 890-6076-4

Date Collected: 01/30/24 11:24

Matrix: Solid

Date Received: 01/31/24 08:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *	0.00198	mg/Kg		02/08/24 13:05	02/08/24 19:47	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 19:47	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 19:47	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/08/24 13:05	02/08/24 19:47	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 19:47	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/08/24 13:05	02/08/24 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	02/08/24 13:05	02/08/24 19:47	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/08/24 13:05	02/08/24 19:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/08/24 19:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/02/24 15:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/01/24 16:21	02/02/24 15:11	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/01/24 16:21	02/02/24 15:11	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/01/24 16:21	02/02/24 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	161	S1+	70 - 130	02/01/24 16:21	02/02/24 15:11	1
o-Terphenyl	128		70 - 130	02/01/24 16:21	02/02/24 15:11	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Client Sample ID: FS063

Lab Sample ID: 890-6076-4

Date Collected: 01/30/24 11:24
 Date Received: 01/31/24 08:58
 Sample Depth: 1

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	375		49.9	mg/Kg			02/02/24 09:22	10

Client Sample ID: FS074

Lab Sample ID: 890-6076-5

Date Collected: 01/30/24 11:45
 Date Received: 01/31/24 08:58
 Sample Depth: 1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *-	0.00199	mg/Kg		02/08/24 13:05	02/08/24 20:07	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/08/24 13:05	02/08/24 20:07	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/08/24 13:05	02/08/24 20:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/08/24 13:05	02/08/24 20:07	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/08/24 13:05	02/08/24 20:07	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/08/24 13:05	02/08/24 20:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			02/08/24 13:05	02/08/24 20:07	1
1,4-Difluorobenzene (Surr)	106		70 - 130			02/08/24 13:05	02/08/24 20:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/08/24 20:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/02/24 15:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/01/24 16:21	02/02/24 15:32	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/01/24 16:21	02/02/24 15:32	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/01/24 16:21	02/02/24 15:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	148	S1+	70 - 130			02/01/24 16:21	02/02/24 15:32	1
o-Terphenyl	120		70 - 130			02/01/24 16:21	02/02/24 15:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	625		50.1	mg/Kg			02/02/24 09:27	10

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Client Sample ID: FS077

Lab Sample ID: 890-6076-6

Date Collected: 01/30/24 11:49

Matrix: Solid

Date Received: 01/31/24 08:58

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *-	0.00198	mg/Kg		02/08/24 13:05	02/08/24 20:28	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 20:28	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 20:28	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/08/24 13:05	02/08/24 20:28	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 20:28	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/08/24 13:05	02/08/24 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	02/08/24 13:05	02/08/24 20:28	1
1,4-Difluorobenzene (Surr)	106		70 - 130	02/08/24 13:05	02/08/24 20:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/08/24 20:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/02/24 15:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/01/24 16:21	02/02/24 15:54	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/01/24 16:21	02/02/24 15:54	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/01/24 16:21	02/02/24 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	02/01/24 16:21	02/02/24 15:54	1
o-Terphenyl	111		70 - 130	02/01/24 16:21	02/02/24 15:54	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	823		50.2	mg/Kg			02/02/24 09:32	10

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

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)
880-39111-A-1-D MS	Matrix Spike	110	100
880-39111-A-1-E MSD	Matrix Spike Duplicate	104	96
890-6076-1	FS002	116	98
890-6076-2	FS009	124	101
890-6076-3	FS012	107	101
890-6076-4	FS063	97	98
890-6076-5	FS074	111	106
890-6076-6	FS077	107	106
LCS 880-72659/1-A	Lab Control Sample	101	100
LCSD 880-72659/2-A	Lab Control Sample Dup	100	92
MB 880-72659/5-A	Method Blank	119	113

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-6058-A-1-G MS	Matrix Spike	129	93
890-6058-A-1-H MSD	Matrix Spike Duplicate	135 S1+	100
890-6076-1	FS002	136 S1+	111
890-6076-2	FS009	143 S1+	115
890-6076-3	FS012	160 S1+	128
890-6076-4	FS063	161 S1+	128
890-6076-5	FS074	148 S1+	120
890-6076-6	FS077	136 S1+	111
LCS 880-72179/2-A	Lab Control Sample	76	74
LCSD 880-72179/3-A	Lab Control Sample Dup	90	85
MB 880-72179/1-A	Method Blank	155 S1+	131 S1+

Surrogate Legend
 1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72659/5-A
 Matrix: Solid
 Analysis Batch: 72586

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72659

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/08/24 13:05	02/08/24 14:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	02/08/24 13:05	02/08/24 14:24	1
1,4-Difluorobenzene (Surr)	113		70 - 130	02/08/24 13:05	02/08/24 14:24	1

Lab Sample ID: LCS 880-72659/1-A
 Matrix: Solid
 Analysis Batch: 72586

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.06529	*-	mg/Kg		65	70 - 130
Toluene	0.100	0.07720		mg/Kg		77	70 - 130
Ethylbenzene	0.100	0.07542		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	0.200	0.1441		mg/Kg		72	70 - 130
o-Xylene	0.100	0.07388		mg/Kg		74	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-72659/2-A
 Matrix: Solid
 Analysis Batch: 72586

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.08369		mg/Kg		84	70 - 130	25	35
Toluene	0.100	0.08169		mg/Kg		82	70 - 130	6	35
Ethylbenzene	0.100	0.09071		mg/Kg		91	70 - 130	18	35
m-Xylene & p-Xylene	0.200	0.1671		mg/Kg		84	70 - 130	15	35
o-Xylene	0.100	0.08345		mg/Kg		83	70 - 130	12	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 880-39111-A-1-D MS
 Matrix: Solid
 Analysis Batch: 72586

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 72659

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U *-	0.0996	0.09449		mg/Kg		95	70 - 130
Toluene	<0.00200	U	0.0996	0.09445		mg/Kg		95	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

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

Lab Sample ID: 880-39111-A-1-D MS

Matrix: Solid

Analysis Batch: 72586

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 72659

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00200	U	0.0996	0.1166		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2202		mg/Kg		111	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1041		mg/Kg		104	70 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	110		70 - 130						
1,4-Difluorobenzene (Surr)	100		70 - 130						

Lab Sample ID: 880-39111-A-1-E MSD

Matrix: Solid

Analysis Batch: 72586

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 72659

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00200	U *-	0.101	0.09670		mg/Kg		96	70 - 130	2	35
Toluene	<0.00200	U	0.101	0.09657		mg/Kg		96	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.101	0.1061		mg/Kg		105	70 - 130	9	35
m-Xylene & p-Xylene	<0.00399	U	0.202	0.2048		mg/Kg		102	70 - 130	7	35
o-Xylene	<0.00200	U	0.101	0.09899		mg/Kg		98	70 - 130	5	35
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	104		70 - 130								
1,4-Difluorobenzene (Surr)	96		70 - 130								

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

Lab Sample ID: MB 880-72179/1-A

Matrix: Solid

Analysis Batch: 72191

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 72179

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/01/24 16:21	02/02/24 08:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/01/24 16:21	02/02/24 08:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/01/24 16:21	02/02/24 08:02	1
MB MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	155	S1+	70 - 130	02/01/24 16:21	02/02/24 08:02	1		
o-Terphenyl	131	S1+	70 - 130	02/01/24 16:21	02/02/24 08:02	1		

Lab Sample ID: LCS 880-72179/2-A

Matrix: Solid

Analysis Batch: 72191

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 72179

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	847.3		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	752.5		mg/Kg		75	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

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

Lab Sample ID: LCS 880-72179/2-A
Matrix: Solid
Analysis Batch: 72191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72179

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	76		70 - 130
o-Terphenyl	74		70 - 130

Lab Sample ID: LCSD 880-72179/3-A
Matrix: Solid
Analysis Batch: 72191

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72179

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	870.5		mg/Kg		87	70 - 130	3		20
Diesel Range Organics (Over C10-C28)	1000	825.2		mg/Kg		83	70 - 130	9		20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	90		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 890-6058-A-1-G MS
Matrix: Solid
Analysis Batch: 72191

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 72179

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	RPD
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	1010	1339		mg/Kg		129	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.2	U	1010	1115		mg/Kg		108	70 - 130	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	129		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-6058-A-1-H MSD
Matrix: Solid
Analysis Batch: 72191

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 72179

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	1010	1375	F1	mg/Kg		132	70 - 130	3		20
Diesel Range Organics (Over C10-C28)	<50.2	U	1010	1181		mg/Kg		115	70 - 130	6		20

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	135	S1+	70 - 130
o-Terphenyl	100		70 - 130

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72072/1-A
 Matrix: Solid
 Analysis Batch: 72094

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/01/24 08:25	1

Lab Sample ID: LCS 880-72072/2-A
 Matrix: Solid
 Analysis Batch: 72094

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	243.3		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-72072/3-A
 Matrix: Solid
 Analysis Batch: 72094

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	241.5		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 890-6076-1 MS
 Matrix: Solid
 Analysis Batch: 72094

Client Sample ID: FS002
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	732	F1	2490	3998	F1	mg/Kg		131	90 - 110

Lab Sample ID: 890-6076-1 MSD
 Matrix: Solid
 Analysis Batch: 72094

Client Sample ID: FS002
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	732	F1	2530	4073	F1	mg/Kg		132	90 - 110	2	20

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

GC VOA

Analysis Batch: 72586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6076-1	FS002	Total/NA	Solid	8021B	72659
890-6076-2	FS009	Total/NA	Solid	8021B	72659
890-6076-3	FS012	Total/NA	Solid	8021B	72659
890-6076-4	FS063	Total/NA	Solid	8021B	72659
890-6076-5	FS074	Total/NA	Solid	8021B	72659
890-6076-6	FS077	Total/NA	Solid	8021B	72659
MB 880-72659/5-A	Method Blank	Total/NA	Solid	8021B	72659
LCS 880-72659/1-A	Lab Control Sample	Total/NA	Solid	8021B	72659
LCSD 880-72659/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72659
880-39111-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	72659
880-39111-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	72659

Prep Batch: 72659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6076-1	FS002	Total/NA	Solid	5035	
890-6076-2	FS009	Total/NA	Solid	5035	
890-6076-3	FS012	Total/NA	Solid	5035	
890-6076-4	FS063	Total/NA	Solid	5035	
890-6076-5	FS074	Total/NA	Solid	5035	
890-6076-6	FS077	Total/NA	Solid	5035	
MB 880-72659/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72659/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72659/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39111-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-39111-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 72716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6076-1	FS002	Total/NA	Solid	Total BTEX	
890-6076-2	FS009	Total/NA	Solid	Total BTEX	
890-6076-3	FS012	Total/NA	Solid	Total BTEX	
890-6076-4	FS063	Total/NA	Solid	Total BTEX	
890-6076-5	FS074	Total/NA	Solid	Total BTEX	
890-6076-6	FS077	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6076-1	FS002	Total/NA	Solid	8015NM Prep	
890-6076-2	FS009	Total/NA	Solid	8015NM Prep	
890-6076-3	FS012	Total/NA	Solid	8015NM Prep	
890-6076-4	FS063	Total/NA	Solid	8015NM Prep	
890-6076-5	FS074	Total/NA	Solid	8015NM Prep	
890-6076-6	FS077	Total/NA	Solid	8015NM Prep	
MB 880-72179/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72179/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72179/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6058-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6058-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

GC Semi VOA

Analysis Batch: 72191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6076-1	FS002	Total/NA	Solid	8015B NM	72179
890-6076-2	FS009	Total/NA	Solid	8015B NM	72179
890-6076-3	FS012	Total/NA	Solid	8015B NM	72179
890-6076-4	FS063	Total/NA	Solid	8015B NM	72179
890-6076-5	FS074	Total/NA	Solid	8015B NM	72179
890-6076-6	FS077	Total/NA	Solid	8015B NM	72179
MB 880-72179/1-A	Method Blank	Total/NA	Solid	8015B NM	72179
LCS 880-72179/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72179
LCSD 880-72179/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72179
890-6058-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	72179
890-6058-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	72179

Analysis Batch: 72392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6076-1	FS002	Total/NA	Solid	8015 NM	
890-6076-2	FS009	Total/NA	Solid	8015 NM	
890-6076-3	FS012	Total/NA	Solid	8015 NM	
890-6076-4	FS063	Total/NA	Solid	8015 NM	
890-6076-5	FS074	Total/NA	Solid	8015 NM	
890-6076-6	FS077	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 72072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6076-1	FS002	Soluble	Solid	DI Leach	
890-6076-2	FS009	Soluble	Solid	DI Leach	
890-6076-3	FS012	Soluble	Solid	DI Leach	
890-6076-4	FS063	Soluble	Solid	DI Leach	
890-6076-5	FS074	Soluble	Solid	DI Leach	
890-6076-6	FS077	Soluble	Solid	DI Leach	
MB 880-72072/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72072/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72072/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6076-1 MS	FS002	Soluble	Solid	DI Leach	
890-6076-1 MSD	FS002	Soluble	Solid	DI Leach	

Analysis Batch: 72094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6076-1	FS002	Soluble	Solid	300.0	72072
890-6076-2	FS009	Soluble	Solid	300.0	72072
890-6076-3	FS012	Soluble	Solid	300.0	72072
890-6076-4	FS063	Soluble	Solid	300.0	72072
890-6076-5	FS074	Soluble	Solid	300.0	72072
890-6076-6	FS077	Soluble	Solid	300.0	72072
MB 880-72072/1-A	Method Blank	Soluble	Solid	300.0	72072
LCS 880-72072/2-A	Lab Control Sample	Soluble	Solid	300.0	72072
LCSD 880-72072/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72072
890-6076-1 MS	FS002	Soluble	Solid	300.0	72072
890-6076-1 MSD	FS002	Soluble	Solid	300.0	72072

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Client Sample ID: FS002

Lab Sample ID: 890-6076-1

Date Collected: 01/30/24 10:37

Matrix: Solid

Date Received: 01/31/24 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 17:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72716	02/08/24 17:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			72392	02/02/24 13:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 13:44	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	72072	02/01/24 12:00	SMC	EET MID
Soluble	Analysis	300.0		10			72094	02/02/24 08:58	CH	EET MID

Client Sample ID: FS009

Lab Sample ID: 890-6076-2

Date Collected: 01/30/24 10:45

Matrix: Solid

Date Received: 01/31/24 08:58

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	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 17:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72716	02/08/24 17:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			72392	02/02/24 14:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 14:06	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72072	02/01/24 12:00	SMC	EET MID
Soluble	Analysis	300.0		10	0 mL	1.0 mL	72094	02/02/24 09:12	CH	EET MID

Client Sample ID: FS012

Lab Sample ID: 890-6076-3

Date Collected: 01/30/24 10:56

Matrix: Solid

Date Received: 01/31/24 08:58

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	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 17:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72716	02/08/24 17:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			72392	02/02/24 14:28	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 14:28	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72072	02/01/24 12:00	SMC	EET MID
Soluble	Analysis	300.0		10	0 mL	1.0 mL	72094	02/02/24 09:17	CH	EET MID

Client Sample ID: FS063

Lab Sample ID: 890-6076-4

Date Collected: 01/30/24 11:24

Matrix: Solid

Date Received: 01/31/24 08:58

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	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 19:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72716	02/08/24 19:47	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
 SDG: 03C2884002

Client Sample ID: FS063
 Date Collected: 01/30/24 11:24
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6076-4
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			72392	02/02/24 15:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 15:11	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72072	02/01/24 12:00	SMC	EET MID
Soluble	Analysis	300.0		10	0 mL	1.0 mL	72094	02/02/24 09:22	CH	EET MID

Client Sample ID: FS074
 Date Collected: 01/30/24 11:45
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6076-5
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 20:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72716	02/08/24 20:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			72392	02/02/24 15:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 15:32	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72072	02/01/24 12:00	SMC	EET MID
Soluble	Analysis	300.0		10			72094	02/02/24 09:27	CH	EET MID

Client Sample ID: FS077
 Date Collected: 01/30/24 11:49
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6076-6
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 20:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72716	02/08/24 20:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			72392	02/02/24 15:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72179	02/01/24 16:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72191	02/02/24 15:54	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72072	02/01/24 12:00	SMC	EET MID
Soluble	Analysis	300.0		10			72094	02/02/24 09:32	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
SDG: 03C2884002

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	T104704400-23-26	06-30-24

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

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

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
SDG: 03C2884002

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6076-1
SDG: 03C2884002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6076-1	FS002	Solid	01/30/24 10:37	01/31/24 08:58	1
890-6076-2	FS009	Solid	01/30/24 10:45	01/31/24 08:58	1
890-6076-3	FS012	Solid	01/30/24 10:56	01/31/24 08:58	1
890-6076-4	FS063	Solid	01/30/24 11:24	01/31/24 08:58	1
890-6076-5	FS074	Solid	01/30/24 11:45	01/31/24 08:58	1
890-6076-6	FS077	Solid	01/30/24 11:49	01/31/24 08:58	1

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

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 922-0300
 Midland, TX (432) 704-5443, San Antonio, TX (210) 609-3334
 El Paso, TX (915) 885-3443, Lubbock, TX (806) 794-1288
 Hooper, NM (575) 330-7555, Carlsbad, NM (575) 855-3199

Environment Testing



Work Order No:

16076

Project Manager: Talena Morrissey Bill to: (if different) _____
 Company Name: Ensolum, LLC Company Name: _____
 Address: 3122 National Parks Highway Address: _____
 City, State ZIP: Carlsbad, NM, 88220 City, State ZIP: _____
 Phone: 337-257-8307 Email: T.Morrissey@ensolum.com

Project Name: Desert Eagle Fire Line (NW) Turn Around _____
 Project Number: 03C2884002 Routine Rush
 Project Location: 32.51774, -104.11048 Due Date: 1 Day
 Sampler's Name: Ethan Huff TAT starts the day received by the lab, if received by 4:00pm.

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	# of Comp. Cont.	Wet Loc:		Thermometer ID:	Correction Factor:	Temperature Reading:	Connected Temperature:	Parameters		Preservative Codes
						Yes	No					None	NO	
F5002	S	1/30/24	1037	1	C									None; NO DI Water; H ₂ O
F5009	S	1/30/24	1045	1	C									Cool: Cool MeOH: Me HCL: HC HNO ₃
F5012	S	1/30/24	1056	1	C									H ₂ SO ₄ ; H ₂ NaOH; Na
F5063	S	1/30/24	1124	1	C									H ₄ PO ₄ ; HP NaHSO ₄ ; MABIS Na ₂ S ₂ O ₃ ; Na ₂ SO ₃
F5074	S	1/30/24	1145	1	C									Zn Acetate; NaOH; Zn
F5077	S	1/30/24	1149	1	C									NaOH; Ascorbic Acid; SAMP

Total 200.7 / 6010 200.B / 6020: BRCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fa Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 Circ's Method(s) and Metal(s) to be analyzed: TCPL / SPLP 6010: 3RCRA Sb As Ba Bb Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notes: Big picture of this document and relinquishment of samples constitutes a valid process under the company to Eurofins Xenco, its affiliates and subcontractors. If analysis 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 \$25.00 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) [Signature] Received by: (Signature) [Signature] Date/Time: 1/31/24 8:54
 Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time: 1/31/24 8:54

Revised: 04/14/2020 (Rev. 3/17/21)



Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6076-1

SDG Number: 03C2884002

Login Number: 6076

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6076-1

SDG Number: 03C2884002

Login Number: 6076

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/01/24 11:02 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	

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 2/14/2024 1:58:24 PM Revision 1

JOB DESCRIPTION

Desert Eagle Frac Line (200)
 03C2884002

JOB NUMBER

890-6077-1

Eurofins Carlsbad
 1089 N Canal St.
 Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/14/2024 1:58:24 PM
Revision 1

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

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

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Laboratory Job ID: 890-6077-1
SDG: 03C2884002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	20
QC Sample Results	22
QC Association Summary	28
Lab Chronicle	33
Certification Summary	39
Method Summary	40
Sample Summary	41
Chain of Custody	42
Receipt Checklists	44

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (200)

Job ID: 890-6077-1

Job ID: 890-6077-1

Eurofins Carlsbad

Job Narrative 890-6077-1

REVISION

The report being provided is a revision of the original report sent on 2/12/2024. The report (revision 1) is being revised due to Per client email, requestin chloride re run on sample FS064.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/31/2024 8:58 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS003 (890-6077-1), FS005 (890-6077-2), FS010 (890-6077-3), FS011 (890-6077-4), FS013 (890-6077-5), FS015 (890-6077-6), FS017 (890-6077-7), FS020 (890-6077-8), FS064 (890-6077-9), FS066 (890-6077-10), FS068 (890-6077-11), FS070 (890-6077-12), FS072 (890-6077-13), FS075 (890-6077-14), FS076 (890-6077-15), FS078 (890-6077-16) and FS084 (890-6077-17).

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-72706 recovered above the upper control limit for Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-72706/82).

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS013 (890-6077-5), FS015 (890-6077-6), FS020 (890-6077-8) and FS084 (890-6077-17). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-72706 recovered above the upper control limit for Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-72706/113).

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72343 and analytical batch 880-72615 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS003 (890-6077-1) and (890-6077-A-1-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS005 (890-6077-2), FS010 (890-6077-3), FS011 (890-6077-4), FS013 (890-6077-5), FS017 (890-6077-7) and FS064 (890-6077-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS066 (890-6077-10), FS068 (890-6077-11), FS076 (890-6077-15) and FS078 (890-6077-16). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (200)

Job ID: 890-6077-1

Job ID: 890-6077-1 (Continued)

Eurofins Carlsbad

Method 8015MOD_NM: The method blank for preparation batch 880-72343 and analytical batch 880-72615 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: Spike compounds were inadvertently omitted during the extraction process for the matrix spike/matrix spike duplicate (MS/MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-72343 and analytical batch 880-72615. The associated laboratory control sample (LCS) met acceptance criteria.

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.



Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

Client Sample ID: FS003

Date Collected: 01/30/24 10:39

Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 20:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 20:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 20:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/09/24 13:04	02/10/24 20:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 20:34	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/09/24 13:04	02/10/24 20:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	02/09/24 13:04	02/10/24 20:34	1
1,4-Difluorobenzene (Surr)	79		70 - 130	02/09/24 13:04	02/10/24 20:34	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/10/24 20:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/08/24 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	49.9	mg/Kg		02/05/24 10:14	02/08/24 10:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1 F2	49.9	mg/Kg		02/05/24 10:14	02/08/24 10:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/05/24 10:14	02/08/24 10:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130	02/05/24 10:14	02/08/24 10:20	1
o-Terphenyl	113		70 - 130	02/05/24 10:14	02/08/24 10:20	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	518		5.02	mg/Kg			02/04/24 22:58	1

Client Sample ID: FS005

Date Collected: 01/30/24 10:41

Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 20:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 20:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 20:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/10/24 20:55	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 20:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/10/24 20:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	02/09/24 13:04	02/10/24 20:55	1
1,4-Difluorobenzene (Surr)	76		70 - 130	02/09/24 13:04	02/10/24 20:55	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS005

Lab Sample ID: 890-6077-2

Date Collected: 01/30/24 10:41

Matrix: Solid

Date Received: 01/31/24 08:58

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/10/24 20:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/08/24 11:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		02/05/24 10:14	02/08/24 11:48	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		02/05/24 10:14	02/08/24 11:48	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		02/05/24 10:14	02/08/24 11:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	145	S1+	70 - 130	02/05/24 10:14	02/08/24 11:48	1
o-Terphenyl	123		70 - 130	02/05/24 10:14	02/08/24 11:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	774		5.04	mg/Kg			02/04/24 23:03	1

Client Sample ID: FS010

Lab Sample ID: 890-6077-3

Date Collected: 01/30/24 10:46

Matrix: Solid

Date Received: 01/31/24 08:58

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 21:15	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 21:15	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 21:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/10/24 21:15	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 21:15	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/10/24 21:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/09/24 13:04	02/10/24 21:15	1
1,4-Difluorobenzene (Surr)	82		70 - 130	02/09/24 13:04	02/10/24 21:15	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/10/24 21:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/08/24 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 12:09	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 12:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS010
 Date Collected: 01/30/24 10:46
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-3
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 12:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	156	S1+	70 - 130			02/05/24 10:14	02/08/24 12:09	1
o-Terphenyl	132	S1+	70 - 130			02/05/24 10:14	02/08/24 12:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	519		5.01	mg/Kg			02/04/24 23:07	1

Client Sample ID: FS011
 Date Collected: 01/30/24 10:54
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-4
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 21:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 21:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 21:36	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/09/24 13:04	02/10/24 21:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 21:36	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/09/24 13:04	02/10/24 21:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130			02/09/24 13:04	02/10/24 21:36	1
1,4-Difluorobenzene (Surr)	79		70 - 130			02/09/24 13:04	02/10/24 21:36	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/10/24 21:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/08/24 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 12:31	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 12:31	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 12:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130			02/05/24 10:14	02/08/24 12:31	1
o-Terphenyl	114		70 - 130			02/05/24 10:14	02/08/24 12:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	177		4.98	mg/Kg			02/04/24 23:22	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS013
Date Collected: 01/30/24 10:57
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/10/24 21:57	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/10/24 21:57	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/10/24 21:57	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/09/24 13:04	02/10/24 21:57	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/10/24 21:57	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/09/24 13:04	02/10/24 21:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	02/09/24 13:04	02/10/24 21:57	1
1,4-Difluorobenzene (Surr)	69	S1-	70 - 130	02/09/24 13:04	02/10/24 21:57	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/10/24 21:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			02/08/24 12:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/05/24 10:14	02/08/24 12:53	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/05/24 10:14	02/08/24 12:53	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/05/24 10:14	02/08/24 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130	02/05/24 10:14	02/08/24 12:53	1
o-Terphenyl	113		70 - 130	02/05/24 10:14	02/08/24 12:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	491		4.99	mg/Kg			02/04/24 23:27	1

Client Sample ID: FS015
Date Collected: 01/30/24 11:00
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 22:17	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 22:17	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 22:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/10/24 22:17	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 22:17	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/10/24 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	02/09/24 13:04	02/10/24 22:17	1
1,4-Difluorobenzene (Surr)	62	S1-	70 - 130	02/09/24 13:04	02/10/24 22:17	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS015
 Date Collected: 01/30/24 11:00
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-6
 Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/10/24 22:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/08/24 13:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/05/24 10:14	02/08/24 13:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/05/24 10:14	02/08/24 13:15	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/05/24 10:14	02/08/24 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	02/05/24 10:14	02/08/24 13:15	1
o-Terphenyl	100		70 - 130	02/05/24 10:14	02/08/24 13:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	180		5.03	mg/Kg			02/04/24 23:42	1

Client Sample ID: FS017
 Date Collected: 01/30/24 11:03
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-7
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 22:38	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 22:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 22:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/10/24 22:38	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/10/24 22:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/10/24 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/09/24 13:04	02/10/24 22:38	1
1,4-Difluorobenzene (Surr)	78		70 - 130	02/09/24 13:04	02/10/24 22:38	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/10/24 22:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/08/24 13:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/05/24 10:14	02/08/24 13:36	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/05/24 10:14	02/08/24 13:36	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS017
 Date Collected: 01/30/24 11:03
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-7
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/05/24 10:14	02/08/24 13:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	S1+	70 - 130			02/05/24 10:14	02/08/24 13:36	1
o-Terphenyl	131	S1+	70 - 130			02/05/24 10:14	02/08/24 13:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	495		5.04	mg/Kg			02/04/24 23:47	1

Client Sample ID: FS020
 Date Collected: 01/30/24 11:06
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-8
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 22:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 22:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 22:58	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/09/24 13:04	02/10/24 22:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 22:58	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/09/24 13:04	02/10/24 22:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130			02/09/24 13:04	02/10/24 22:58	1
1,4-Difluorobenzene (Surr)	50	S1-	70 - 130			02/09/24 13:04	02/10/24 22:58	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/10/24 22:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/08/24 13:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/05/24 10:14	02/08/24 13:59	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/05/24 10:14	02/08/24 13:59	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/05/24 10:14	02/08/24 13:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130			02/05/24 10:14	02/08/24 13:59	1
o-Terphenyl	109		70 - 130			02/05/24 10:14	02/08/24 13:59	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	278		4.97	mg/Kg			02/04/24 23:52	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS064
Date Collected: 01/30/24 11:26
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-9
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/10/24 23:18	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/10/24 23:18	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/10/24 23:18	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/09/24 13:04	02/10/24 23:18	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/10/24 23:18	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/09/24 13:04	02/10/24 23:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	02/09/24 13:04	02/10/24 23:18	1
1,4-Difluorobenzene (Surr)	76		70 - 130	02/09/24 13:04	02/10/24 23:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/10/24 23:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/08/24 14:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 14:20	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 14:20	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	S1+	70 - 130	02/05/24 10:14	02/08/24 14:20	1
o-Terphenyl	132	S1+	70 - 130	02/05/24 10:14	02/08/24 14:20	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	447		5.00	mg/Kg			02/13/24 14:07	1

Client Sample ID: FS066
Date Collected: 01/30/24 11:28
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-10
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 23:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 23:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 23:39	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/09/24 13:04	02/10/24 23:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 23:39	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/09/24 13:04	02/10/24 23:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/09/24 13:04	02/10/24 23:39	1
1,4-Difluorobenzene (Surr)	78		70 - 130	02/09/24 13:04	02/10/24 23:39	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS066
 Date Collected: 01/30/24 11:28
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-10
 Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/10/24 23:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/08/24 15:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 15:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 15:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 15:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130	02/05/24 10:14	02/08/24 15:04	1
o-Terphenyl	112		70 - 130	02/05/24 10:14	02/08/24 15:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	152		4.98	mg/Kg			02/05/24 00:02	1

Client Sample ID: FS068
 Date Collected: 01/30/24 11:31
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-11
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 01:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 01:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 01:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/11/24 01:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 01:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/11/24 01:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	02/09/24 13:04	02/11/24 01:02	1
1,4-Difluorobenzene (Surr)	79		70 - 130	02/09/24 13:04	02/11/24 01:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/11/24 01:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/08/24 15:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/05/24 10:14	02/08/24 15:26	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/05/24 10:14	02/08/24 15:26	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS068
 Date Collected: 01/30/24 11:31
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-11
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/05/24 10:14	02/08/24 15:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	149	S1+	70 - 130			02/05/24 10:14	02/08/24 15:26	1
o-Terphenyl	125		70 - 130			02/05/24 10:14	02/08/24 15:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	464		5.03	mg/Kg			02/05/24 00:07	1

Client Sample ID: FS070
 Date Collected: 01/30/24 11:33
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-12
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 01:22	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 01:22	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 01:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/11/24 01:22	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 01:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/11/24 01:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			02/09/24 13:04	02/11/24 01:22	1
1,4-Difluorobenzene (Surr)	76		70 - 130			02/09/24 13:04	02/11/24 01:22	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/11/24 01:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/08/24 15:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 15:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 15:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 15:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130			02/05/24 10:14	02/08/24 15:48	1
o-Terphenyl	107		70 - 130			02/05/24 10:14	02/08/24 15:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	704		5.02	mg/Kg			02/05/24 00:12	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS072
Date Collected: 01/30/24 11:43
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-13
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/11/24 01:42	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/11/24 01:42	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/11/24 01:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/09/24 13:04	02/11/24 01:42	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/11/24 01:42	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/09/24 13:04	02/11/24 01:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/09/24 13:04	02/11/24 01:42	1
1,4-Difluorobenzene (Surr)	77		70 - 130	02/09/24 13:04	02/11/24 01:42	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/11/24 01:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/08/24 16:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/05/24 10:14	02/08/24 16:09	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/05/24 10:14	02/08/24 16:09	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/05/24 10:14	02/08/24 16:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	02/05/24 10:14	02/08/24 16:09	1
o-Terphenyl	101		70 - 130	02/05/24 10:14	02/08/24 16:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95.4		5.05	mg/Kg			02/05/24 13:58	1

Client Sample ID: FS075
Date Collected: 01/30/24 11:47
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-14
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/11/24 02:03	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/11/24 02:03	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/11/24 02:03	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/09/24 13:04	02/11/24 02:03	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/09/24 13:04	02/11/24 02:03	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/09/24 13:04	02/11/24 02:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/09/24 13:04	02/11/24 02:03	1
1,4-Difluorobenzene (Surr)	76		70 - 130	02/09/24 13:04	02/11/24 02:03	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS075
 Date Collected: 01/30/24 11:47
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-14
 Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/11/24 02:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/08/24 16:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 16:31	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 16:31	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130	02/05/24 10:14	02/08/24 16:31	1
o-Terphenyl	107		70 - 130	02/05/24 10:14	02/08/24 16:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	585		4.99	mg/Kg			02/05/24 14:17	1

Client Sample ID: FS076
 Date Collected: 01/30/24 11:48
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-15
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/11/24 02:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/11/24 02:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/11/24 02:23	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/09/24 13:04	02/11/24 02:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/11/24 02:23	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/09/24 13:04	02/11/24 02:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/09/24 13:04	02/11/24 02:23	1
1,4-Difluorobenzene (Surr)	77		70 - 130	02/09/24 13:04	02/11/24 02:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/11/24 02:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/08/24 16:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/05/24 10:14	02/08/24 16:53	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/05/24 10:14	02/08/24 16:53	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS076
 Date Collected: 01/30/24 11:48
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-15
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/05/24 10:14	02/08/24 16:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	150	S1+	70 - 130			02/05/24 10:14	02/08/24 16:53	1
o-Terphenyl	129		70 - 130			02/05/24 10:14	02/08/24 16:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	510		5.04	mg/Kg			02/05/24 14:22	1

Client Sample ID: FS078
 Date Collected: 01/30/24 11:50
 Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-16
 Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 02:44	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 02:44	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 02:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/11/24 02:44	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 02:44	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/11/24 02:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			02/09/24 13:04	02/11/24 02:44	1
1,4-Difluorobenzene (Surr)	78		70 - 130			02/09/24 13:04	02/11/24 02:44	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/11/24 02:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/08/24 17:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 17:15	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 17:15	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/05/24 10:14	02/08/24 17:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130			02/05/24 10:14	02/08/24 17:15	1
o-Terphenyl	112		70 - 130			02/05/24 10:14	02/08/24 17:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	526		5.00	mg/Kg			02/05/24 14:27	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS084
Date Collected: 01/30/24 11:58
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-17
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 03:04	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 03:04	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 03:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/11/24 03:04	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/09/24 13:04	02/11/24 03:04	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/09/24 13:04	02/11/24 03:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/09/24 13:04	02/11/24 03:04	1
1,4-Difluorobenzene (Surr)	62	S1-	70 - 130	02/09/24 13:04	02/11/24 03:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/11/24 03:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/08/24 17:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 17:37	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 17:37	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/05/24 10:14	02/08/24 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	02/05/24 10:14	02/08/24 17:37	1
o-Terphenyl	103		70 - 130	02/05/24 10:14	02/08/24 17:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	372		4.97	mg/Kg			02/05/24 14:32	1

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-6077-1	FS003	82	79
890-6077-1 MS	FS003	111	99
890-6077-1 MSD	FS003	111	98
890-6077-2	FS005	84	76
890-6077-3	FS010	85	82
890-6077-4	FS011	84	79
890-6077-5	FS013	96	69 S1-
890-6077-6	FS015	91	62 S1-
890-6077-7	FS017	88	78
890-6077-8	FS020	85	50 S1-
890-6077-9	FS064	86	76
890-6077-10	FS066	88	78
890-6077-11	FS068	82	79
890-6077-12	FS070	87	76
890-6077-13	FS072	88	77
890-6077-14	FS075	88	76
890-6077-15	FS076	85	77
890-6077-16	FS078	87	78
890-6077-17	FS084	88	62 S1-
LCS 880-72766/1-A	Lab Control Sample	112	101
LCSD 880-72766/2-A	Lab Control Sample Dup	115	101
MB 880-72502/5-A	Method Blank	73	83
MB 880-72766/5-A	Method Blank	75	80

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-6077-1	FS003	133 S1+	113
890-6077-1 MS	FS003	115	91
890-6077-1 MSD	FS003	146 S1+	122
890-6077-2	FS005	145 S1+	123
890-6077-3	FS010	156 S1+	132 S1+
890-6077-4	FS011	131 S1+	114
890-6077-5	FS013	131 S1+	113
890-6077-6	FS015	118	100
890-6077-7	FS017	154 S1+	131 S1+
890-6077-8	FS020	127	109
890-6077-9	FS064	154 S1+	132 S1+
890-6077-10	FS066	132 S1+	112
890-6077-11	FS068	149 S1+	125
890-6077-12	FS070	129	107
890-6077-13	FS072	118	101
890-6077-14	FS075	125	107

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

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)
890-6077-15	FS076	150 S1+	129
890-6077-16	FS078	131 S1+	112
890-6077-17	FS084	118	103
LCS 880-72343/2-A	Lab Control Sample	97	95
LCSD 880-72343/3-A	Lab Control Sample Dup	96	95
MB 880-72343/1-A	Method Blank	161 S1+	141 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72502/5-A
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72502

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/06/24 13:27	02/10/24 09:00	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/06/24 13:27	02/10/24 09:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130	02/06/24 13:27	02/10/24 09:00	1
1,4-Difluorobenzene (Surr)	83		70 - 130	02/06/24 13:27	02/10/24 09:00	1

Lab Sample ID: MB 880-72766/5-A
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72766

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/09/24 13:04	02/10/24 20:12	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/09/24 13:04	02/10/24 20:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	02/09/24 13:04	02/10/24 20:12	1
1,4-Difluorobenzene (Surr)	80		70 - 130	02/09/24 13:04	02/10/24 20:12	1

Lab Sample ID: LCS 880-72766/1-A
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72766

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1162		mg/Kg		116	70 - 130
Toluene	0.100	0.1119		mg/Kg		112	70 - 130
Ethylbenzene	0.100	0.1237		mg/Kg		124	70 - 130
m-Xylene & p-Xylene	0.200	0.2474		mg/Kg		124	70 - 130
o-Xylene	0.100	0.1188		mg/Kg		119	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-72766/2-A
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72766

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1164		mg/Kg		116	70 - 130	0	35

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

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

Lab Sample ID: LCSD 880-72766/2-A
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72766

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.1145		mg/Kg		114	70 - 130	2	35
Ethylbenzene	0.100	0.1267		mg/Kg		127	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2603		mg/Kg		130	70 - 130	5	35
o-Xylene	0.100	0.1250		mg/Kg		125	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 890-6077-1 MS
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: FS003
 Prep Type: Total/NA
 Prep Batch: 72766

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.09459		mg/Kg		95	70 - 130
Toluene	<0.00200	U	0.0996	0.09442		mg/Kg		94	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.1047		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2058		mg/Kg		103	70 - 130
o-Xylene	<0.00200	U	0.0996	0.09930		mg/Kg		100	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-6077-1 MSD
 Matrix: Solid
 Analysis Batch: 72706

Client Sample ID: FS003
 Prep Type: Total/NA
 Prep Batch: 72766

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.1054		mg/Kg		106	70 - 130	11	35
Toluene	<0.00200	U	0.0990	0.1041		mg/Kg		105	70 - 130	10	35
Ethylbenzene	<0.00200	U	0.0990	0.1128		mg/Kg		114	70 - 130	7	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.2246		mg/Kg		113	70 - 130	9	35
o-Xylene	<0.00200	U	0.0990	0.1077		mg/Kg		109	70 - 130	8	35

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

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

Lab Sample ID: MB 880-72343/1-A
 Matrix: Solid
 Analysis Batch: 72615

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72343

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 07:47	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

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

Lab Sample ID: MB 880-72343/1-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72343

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 07:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/05/24 10:14	02/08/24 07:47	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	161	S1+	70 - 130			02/05/24 10:14	02/08/24 07:47	1
o-Terphenyl	141	S1+	70 - 130			02/05/24 10:14	02/08/24 07:47	1

Lab Sample ID: LCS 880-72343/2-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72343

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	811.1		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)	1000	872.0		mg/Kg		87	70 - 130
Surrogate	LCS LCS		Limits			%Rec	Limits
	%Recovery	Qualifier					
1-Chlorooctane	97		70 - 130				
o-Terphenyl	95		70 - 130				

Lab Sample ID: LCSD 880-72343/3-A
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72343

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	848.3		mg/Kg		85	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	876.8		mg/Kg		88	70 - 130	1	20
Surrogate	LCSD LCSD		Limits			%Rec	Limits		
	%Recovery	Qualifier							
1-Chlorooctane	96		70 - 130						
o-Terphenyl	95		70 - 130						

Lab Sample ID: 890-6077-1 MS
Matrix: Solid
Analysis Batch: 72615

Client Sample ID: FS003
Prep Type: Total/NA
Prep Batch: 72343

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	1190		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1 F2	999	920.2		mg/Kg		90	70 - 130
Surrogate	MS MS		Limits					%Rec	Limits
	%Recovery	Qualifier							
1-Chlorooctane	115		70 - 130						
o-Terphenyl	91		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6077-1 MSD
 Matrix: Solid
 Analysis Batch: 72615

Client Sample ID: FS003
 Prep Type: Total/NA
 Prep Batch: 72343

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	999	<50.0	U F1 F2	mg/Kg		0.9	70 - 130	186	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1 F2	999	<50.0	U F1 F2	mg/Kg		0.3	70 - 130	191	20
Surrogate	%Recovery	MSD Qualifier	MSD	Limits							
1-Chlorooctane	146	S1+		70 - 130							
o-Terphenyl	122			70 - 130							

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72128/1-A
 Matrix: Solid
 Analysis Batch: 72259

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/04/24 21:44	1

Lab Sample ID: LCS 880-72128/2-A
 Matrix: Solid
 Analysis Batch: 72259

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	241.4		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-72128/3-A
 Matrix: Solid
 Analysis Batch: 72259

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	242.9		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 890-6077-3 MS
 Matrix: Solid
 Analysis Batch: 72259

Client Sample ID: FS010
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	519		251	757.5		mg/Kg		95	90 - 110

Lab Sample ID: 890-6077-3 MSD
 Matrix: Solid
 Analysis Batch: 72259

Client Sample ID: FS010
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	519		251	758.7		mg/Kg		96	90 - 110	0	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-72129/1-A
 Matrix: Solid
 Analysis Batch: 72321

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/05/24 13:43	1

Lab Sample ID: LCS 880-72129/2-A
 Matrix: Solid
 Analysis Batch: 72321

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	244.2		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-72129/3-A
 Matrix: Solid
 Analysis Batch: 72321

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	244.2		mg/Kg		98	90 - 110	0	20

Lab Sample ID: 890-6077-13 MS
 Matrix: Solid
 Analysis Batch: 72321

Client Sample ID: FS072
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	95.4		253	349.3		mg/Kg		101	90 - 110

Lab Sample ID: 890-6077-13 MSD
 Matrix: Solid
 Analysis Batch: 72321

Client Sample ID: FS072
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	95.4		253	350.0		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-73046/1-A
 Matrix: Solid
 Analysis Batch: 73065

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/13/24 12:59	1

Lab Sample ID: LCS 880-73046/2-A
 Matrix: Solid
 Analysis Batch: 73065

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.0		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-73046/3-A
 Matrix: Solid
 Analysis Batch: 73065

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	241.5		mg/Kg		97	90 - 110	1	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-39276-A-4-B MS
Matrix: Solid
Analysis Batch: 73065

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	113		250	362.0		mg/Kg		100	90 - 110

Lab Sample ID: 880-39276-A-4-C MSD
Matrix: Solid
Analysis Batch: 73065

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	113		250	363.0		mg/Kg		100	90 - 110	0	20

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

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

GC VOA

Prep Batch: 72502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-72502/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 72706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1	FS003	Total/NA	Solid	8021B	72766
890-6077-2	FS005	Total/NA	Solid	8021B	72766
890-6077-3	FS010	Total/NA	Solid	8021B	72766
890-6077-4	FS011	Total/NA	Solid	8021B	72766
890-6077-5	FS013	Total/NA	Solid	8021B	72766
890-6077-6	FS015	Total/NA	Solid	8021B	72766
890-6077-7	FS017	Total/NA	Solid	8021B	72766
890-6077-8	FS020	Total/NA	Solid	8021B	72766
890-6077-9	FS064	Total/NA	Solid	8021B	72766
890-6077-10	FS066	Total/NA	Solid	8021B	72766
890-6077-11	FS068	Total/NA	Solid	8021B	72766
890-6077-12	FS070	Total/NA	Solid	8021B	72766
890-6077-13	FS072	Total/NA	Solid	8021B	72766
890-6077-14	FS075	Total/NA	Solid	8021B	72766
890-6077-15	FS076	Total/NA	Solid	8021B	72766
890-6077-16	FS078	Total/NA	Solid	8021B	72766
890-6077-17	FS084	Total/NA	Solid	8021B	72766
MB 880-72502/5-A	Method Blank	Total/NA	Solid	8021B	72502
MB 880-72766/5-A	Method Blank	Total/NA	Solid	8021B	72766
LCS 880-72766/1-A	Lab Control Sample	Total/NA	Solid	8021B	72766
LCSD 880-72766/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72766
890-6077-1 MS	FS003	Total/NA	Solid	8021B	72766
890-6077-1 MSD	FS003	Total/NA	Solid	8021B	72766

Prep Batch: 72766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1	FS003	Total/NA	Solid	5035	
890-6077-2	FS005	Total/NA	Solid	5035	
890-6077-3	FS010	Total/NA	Solid	5035	
890-6077-4	FS011	Total/NA	Solid	5035	
890-6077-5	FS013	Total/NA	Solid	5035	
890-6077-6	FS015	Total/NA	Solid	5035	
890-6077-7	FS017	Total/NA	Solid	5035	
890-6077-8	FS020	Total/NA	Solid	5035	
890-6077-9	FS064	Total/NA	Solid	5035	
890-6077-10	FS066	Total/NA	Solid	5035	
890-6077-11	FS068	Total/NA	Solid	5035	
890-6077-12	FS070	Total/NA	Solid	5035	
890-6077-13	FS072	Total/NA	Solid	5035	
890-6077-14	FS075	Total/NA	Solid	5035	
890-6077-15	FS076	Total/NA	Solid	5035	
890-6077-16	FS078	Total/NA	Solid	5035	
890-6077-17	FS084	Total/NA	Solid	5035	
MB 880-72766/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72766/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72766/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6077-1 MS	FS003	Total/NA	Solid	5035	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

GC VOA (Continued)

Prep Batch: 72766 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1 MSD	FS003	Total/NA	Solid	5035	

Analysis Batch: 72988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1	FS003	Total/NA	Solid	Total BTEX	
890-6077-2	FS005	Total/NA	Solid	Total BTEX	
890-6077-3	FS010	Total/NA	Solid	Total BTEX	
890-6077-4	FS011	Total/NA	Solid	Total BTEX	
890-6077-5	FS013	Total/NA	Solid	Total BTEX	
890-6077-6	FS015	Total/NA	Solid	Total BTEX	
890-6077-7	FS017	Total/NA	Solid	Total BTEX	
890-6077-8	FS020	Total/NA	Solid	Total BTEX	
890-6077-9	FS064	Total/NA	Solid	Total BTEX	
890-6077-10	FS066	Total/NA	Solid	Total BTEX	
890-6077-11	FS068	Total/NA	Solid	Total BTEX	
890-6077-12	FS070	Total/NA	Solid	Total BTEX	
890-6077-13	FS072	Total/NA	Solid	Total BTEX	
890-6077-14	FS075	Total/NA	Solid	Total BTEX	
890-6077-15	FS076	Total/NA	Solid	Total BTEX	
890-6077-16	FS078	Total/NA	Solid	Total BTEX	
890-6077-17	FS084	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1	FS003	Total/NA	Solid	8015NM Prep	
890-6077-2	FS005	Total/NA	Solid	8015NM Prep	
890-6077-3	FS010	Total/NA	Solid	8015NM Prep	
890-6077-4	FS011	Total/NA	Solid	8015NM Prep	
890-6077-5	FS013	Total/NA	Solid	8015NM Prep	
890-6077-6	FS015	Total/NA	Solid	8015NM Prep	
890-6077-7	FS017	Total/NA	Solid	8015NM Prep	
890-6077-8	FS020	Total/NA	Solid	8015NM Prep	
890-6077-9	FS064	Total/NA	Solid	8015NM Prep	
890-6077-10	FS066	Total/NA	Solid	8015NM Prep	
890-6077-11	FS068	Total/NA	Solid	8015NM Prep	
890-6077-12	FS070	Total/NA	Solid	8015NM Prep	
890-6077-13	FS072	Total/NA	Solid	8015NM Prep	
890-6077-14	FS075	Total/NA	Solid	8015NM Prep	
890-6077-15	FS076	Total/NA	Solid	8015NM Prep	
890-6077-16	FS078	Total/NA	Solid	8015NM Prep	
890-6077-17	FS084	Total/NA	Solid	8015NM Prep	
MB 880-72343/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72343/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72343/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6077-1 MS	FS003	Total/NA	Solid	8015NM Prep	
890-6077-1 MSD	FS003	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

GC Semi VOA

Analysis Batch: 72615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1	FS003	Total/NA	Solid	8015B NM	72343
890-6077-2	FS005	Total/NA	Solid	8015B NM	72343
890-6077-3	FS010	Total/NA	Solid	8015B NM	72343
890-6077-4	FS011	Total/NA	Solid	8015B NM	72343
890-6077-5	FS013	Total/NA	Solid	8015B NM	72343
890-6077-6	FS015	Total/NA	Solid	8015B NM	72343
890-6077-7	FS017	Total/NA	Solid	8015B NM	72343
890-6077-8	FS020	Total/NA	Solid	8015B NM	72343
890-6077-9	FS064	Total/NA	Solid	8015B NM	72343
890-6077-10	FS066	Total/NA	Solid	8015B NM	72343
890-6077-11	FS068	Total/NA	Solid	8015B NM	72343
890-6077-12	FS070	Total/NA	Solid	8015B NM	72343
890-6077-13	FS072	Total/NA	Solid	8015B NM	72343
890-6077-14	FS075	Total/NA	Solid	8015B NM	72343
890-6077-15	FS076	Total/NA	Solid	8015B NM	72343
890-6077-16	FS078	Total/NA	Solid	8015B NM	72343
890-6077-17	FS084	Total/NA	Solid	8015B NM	72343
MB 880-72343/1-A	Method Blank	Total/NA	Solid	8015B NM	72343
LCS 880-72343/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72343
LCSD 880-72343/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72343
890-6077-1 MS	FS003	Total/NA	Solid	8015B NM	72343
890-6077-1 MSD	FS003	Total/NA	Solid	8015B NM	72343

Analysis Batch: 72767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1	FS003	Total/NA	Solid	8015 NM	
890-6077-2	FS005	Total/NA	Solid	8015 NM	
890-6077-3	FS010	Total/NA	Solid	8015 NM	
890-6077-4	FS011	Total/NA	Solid	8015 NM	
890-6077-5	FS013	Total/NA	Solid	8015 NM	
890-6077-6	FS015	Total/NA	Solid	8015 NM	
890-6077-7	FS017	Total/NA	Solid	8015 NM	
890-6077-8	FS020	Total/NA	Solid	8015 NM	
890-6077-9	FS064	Total/NA	Solid	8015 NM	
890-6077-10	FS066	Total/NA	Solid	8015 NM	
890-6077-11	FS068	Total/NA	Solid	8015 NM	
890-6077-12	FS070	Total/NA	Solid	8015 NM	
890-6077-13	FS072	Total/NA	Solid	8015 NM	
890-6077-14	FS075	Total/NA	Solid	8015 NM	
890-6077-15	FS076	Total/NA	Solid	8015 NM	
890-6077-16	FS078	Total/NA	Solid	8015 NM	
890-6077-17	FS084	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 72128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1	FS003	Soluble	Solid	DI Leach	
890-6077-2	FS005	Soluble	Solid	DI Leach	
890-6077-3	FS010	Soluble	Solid	DI Leach	
890-6077-4	FS011	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

HPLC/IC (Continued)

Leach Batch: 72128 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-5	FS013	Soluble	Solid	DI Leach	
890-6077-6	FS015	Soluble	Solid	DI Leach	
890-6077-7	FS017	Soluble	Solid	DI Leach	
890-6077-8	FS020	Soluble	Solid	DI Leach	
890-6077-10	FS066	Soluble	Solid	DI Leach	
890-6077-11	FS068	Soluble	Solid	DI Leach	
890-6077-12	FS070	Soluble	Solid	DI Leach	
MB 880-72128/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72128/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72128/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6077-3 MS	FS010	Soluble	Solid	DI Leach	
890-6077-3 MSD	FS010	Soluble	Solid	DI Leach	

Leach Batch: 72129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-13	FS072	Soluble	Solid	DI Leach	
890-6077-14	FS075	Soluble	Solid	DI Leach	
890-6077-15	FS076	Soluble	Solid	DI Leach	
890-6077-16	FS078	Soluble	Solid	DI Leach	
890-6077-17	FS084	Soluble	Solid	DI Leach	
MB 880-72129/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72129/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72129/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6077-13 MS	FS072	Soluble	Solid	DI Leach	
890-6077-13 MSD	FS072	Soluble	Solid	DI Leach	

Analysis Batch: 72259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-1	FS003	Soluble	Solid	300.0	72128
890-6077-2	FS005	Soluble	Solid	300.0	72128
890-6077-3	FS010	Soluble	Solid	300.0	72128
890-6077-4	FS011	Soluble	Solid	300.0	72128
890-6077-5	FS013	Soluble	Solid	300.0	72128
890-6077-6	FS015	Soluble	Solid	300.0	72128
890-6077-7	FS017	Soluble	Solid	300.0	72128
890-6077-8	FS020	Soluble	Solid	300.0	72128
890-6077-10	FS066	Soluble	Solid	300.0	72128
890-6077-11	FS068	Soluble	Solid	300.0	72128
890-6077-12	FS070	Soluble	Solid	300.0	72128
MB 880-72128/1-A	Method Blank	Soluble	Solid	300.0	72128
LCS 880-72128/2-A	Lab Control Sample	Soluble	Solid	300.0	72128
LCSD 880-72128/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72128
890-6077-3 MS	FS010	Soluble	Solid	300.0	72128
890-6077-3 MSD	FS010	Soluble	Solid	300.0	72128

Analysis Batch: 72321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-13	FS072	Soluble	Solid	300.0	72129
890-6077-14	FS075	Soluble	Solid	300.0	72129
890-6077-15	FS076	Soluble	Solid	300.0	72129
890-6077-16	FS078	Soluble	Solid	300.0	72129

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

HPLC/IC (Continued)

Analysis Batch: 72321 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-17	FS084	Soluble	Solid	300.0	72129
MB 880-72129/1-A	Method Blank	Soluble	Solid	300.0	72129
LCS 880-72129/2-A	Lab Control Sample	Soluble	Solid	300.0	72129
LCSD 880-72129/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72129
890-6077-13 MS	FS072	Soluble	Solid	300.0	72129
890-6077-13 MSD	FS072	Soluble	Solid	300.0	72129

Leach Batch: 73046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-9	FS064	Soluble	Solid	DI Leach	
MB 880-73046/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73046/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73046/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39276-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39276-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6077-9	FS064	Soluble	Solid	300.0	73046
MB 880-73046/1-A	Method Blank	Soluble	Solid	300.0	73046
LCS 880-73046/2-A	Lab Control Sample	Soluble	Solid	300.0	73046
LCSD 880-73046/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73046
880-39276-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	73046
880-39276-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73046

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS003

Date Collected: 01/30/24 10:39

Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 20:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 20:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 10:20	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/04/24 22:58	CH	EET MID

Client Sample ID: FS005

Date Collected: 01/30/24 10:41

Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 20:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 20:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 11:48	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 11:48	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/04/24 23:03	CH	EET MID

Client Sample ID: FS010

Date Collected: 01/30/24 10:46

Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 21:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 21:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 12:09	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 12:09	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/04/24 23:07	CH	EET MID

Client Sample ID: FS011

Date Collected: 01/30/24 10:54

Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-4

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			5.01 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 21:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 21:36	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS011
Date Collected: 01/30/24 10:54
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			72767	02/08/24 12:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 12:31	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/04/24 23:22	CH	EET MID

Client Sample ID: FS013
Date Collected: 01/30/24 10:57
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 21:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 21:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 12:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 12:53	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/04/24 23:27	CH	EET MID

Client Sample ID: FS015
Date Collected: 01/30/24 11:00
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 22:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 22:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 13:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 13:15	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/04/24 23:42	CH	EET MID

Client Sample ID: FS017
Date Collected: 01/30/24 11:03
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 22:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 22:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 13:36	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS017
Date Collected: 01/30/24 11:03
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-7
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			4.96 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/04/24 23:47	CH	EET MID

Client Sample ID: FS020
Date Collected: 01/30/24 11:06
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-8
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			5.01 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 22:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 22:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 13:59	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 13:59	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/04/24 23:52	CH	EET MID

Client Sample ID: FS064
Date Collected: 01/30/24 11:26
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-9
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			4.97 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 23:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 23:18	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 14:20	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73046	02/13/24 13:08	CH	EET MID
Soluble	Analysis	300.0		1			73065	02/13/24 14:07	CH	EET MID

Client Sample ID: FS066
Date Collected: 01/30/24 11:28
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-10
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			4.99 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/10/24 23:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/10/24 23:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 15:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 15:04	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/05/24 00:02	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS068
Date Collected: 01/30/24 11:31
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 01:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/11/24 01:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 15:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 15:26	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/05/24 00:07	CH	EET MID

Client Sample ID: FS070
Date Collected: 01/30/24 11:33
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-12
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	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 01:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/11/24 01:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 15:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 15:48	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72128	02/01/24 11:12	SMC	EET MID
Soluble	Analysis	300.0		1			72259	02/05/24 00:12	CH	EET MID

Client Sample ID: FS072
Date Collected: 01/30/24 11:43
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 01:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/11/24 01:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 16:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 16:09	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	72129	02/01/24 11:18	SMC	EET MID
Soluble	Analysis	300.0		1			72321	02/05/24 13:58	CH	EET MID

Client Sample ID: FS075
Date Collected: 01/30/24 11:47
Date Received: 01/31/24 08:58

Lab Sample ID: 890-6077-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 02:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/11/24 02:03	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
 SDG: 03C2884002

Client Sample ID: FS075

Lab Sample ID: 890-6077-14

Date Collected: 01/30/24 11:47

Matrix: Solid

Date Received: 01/31/24 08:58

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			72767	02/08/24 16:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 16:31	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72129	02/01/24 11:18	SMC	EET MID
Soluble	Analysis	300.0		1			72321	02/05/24 14:17	CH	EET MID

Client Sample ID: FS076

Lab Sample ID: 890-6077-15

Date Collected: 01/30/24 11:48

Matrix: Solid

Date Received: 01/31/24 08:58

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	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 02:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/11/24 02:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 16:53	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 16:53	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72129	02/01/24 11:18	SMC	EET MID
Soluble	Analysis	300.0		1			72321	02/05/24 14:22	CH	EET MID

Client Sample ID: FS078

Lab Sample ID: 890-6077-16

Date Collected: 01/30/24 11:50

Matrix: Solid

Date Received: 01/31/24 08:58

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	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 02:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/11/24 02:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 17:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 17:15	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	72129	02/01/24 11:18	SMC	EET MID
Soluble	Analysis	300.0		1			72321	02/05/24 14:27	CH	EET MID

Client Sample ID: FS084

Lab Sample ID: 890-6077-17

Date Collected: 01/30/24 11:58

Matrix: Solid

Date Received: 01/31/24 08:58

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	72766	02/09/24 13:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72706	02/11/24 03:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72988	02/11/24 03:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			72767	02/08/24 17:37	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72343	02/05/24 10:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72615	02/08/24 17:37	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

Client Sample ID: FS084

Lab Sample ID: 890-6077-17

Date Collected: 01/30/24 11:58

Matrix: Solid

Date Received: 01/31/24 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	72129	02/01/24 11:18	SMC	EET MID
Soluble	Analysis	300.0		1			72321	02/05/24 14:32	CH	EET MID

Laboratory References:

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

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

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	T104704400-23-26	06-30-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

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

Protocol References:

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

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6077-1
SDG: 03C2884002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6077-1	FS003	Solid	01/30/24 10:39	01/31/24 08:58
890-6077-2	FS005	Solid	01/30/24 10:41	01/31/24 08:58
890-6077-3	FS010	Solid	01/30/24 10:46	01/31/24 08:58
890-6077-4	FS011	Solid	01/30/24 10:54	01/31/24 08:58
890-6077-5	FS013	Solid	01/30/24 10:57	01/31/24 08:58
890-6077-6	FS015	Solid	01/30/24 11:00	01/31/24 08:58
890-6077-7	FS017	Solid	01/30/24 11:03	01/31/24 08:58
890-6077-8	FS020	Solid	01/30/24 11:06	01/31/24 08:58
890-6077-9	FS064	Solid	01/30/24 11:26	01/31/24 08:58
890-6077-10	FS066	Solid	01/30/24 11:28	01/31/24 08:58
890-6077-11	FS068	Solid	01/30/24 11:31	01/31/24 08:58
890-6077-12	FS070	Solid	01/30/24 11:33	01/31/24 08:58
890-6077-13	FS072	Solid	01/30/24 11:43	01/31/24 08:58
890-6077-14	FS075	Solid	01/30/24 11:47	01/31/24 08:58
890-6077-15	FS076	Solid	01/30/24 11:48	01/31/24 08:58
890-6077-16	FS078	Solid	01/30/24 11:50	01/31/24 08:58
890-6077-17	FS084	Solid	01/30/24 11:58	01/31/24 08:58

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



Environment Testing

Chain of Custody

Houston, TX (281) 240-1000, Dallas, TX (214) 902-0000
Method, TX (409) 726-5400, San Antonio, TX (210) 508-3034
EL Paso, TX (915) 685-3443, Lubbock, TX (806) 764-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 388-3196
Little Rock, AR (501) 224-9060

Work Order No: 6077

Page 1 of 2

Project Manager: Tarrina Morrissey
Company Name: Eurofins LLC
Address: 8102 National Parks Highway
City, State ZIP: Carlsbad, NM 88220
Phone: 337-251-8367
Email: T.Morrissey@eurofins.com

Work Order Comments
Program: UST/PST
State of Project:
Reporting Level: Level I
Deliverable: EDD

Project Name: Desert Eagle Fire Line (02)
Project Number: 03C 2884400
Project Location: 37, 54774 - 104, 12048
Sampler's Name: Ethan Hill
SAMPLE RECEIPT
Samples Received Inact: Yes No
Cooler Custody Seals: Yes No
Sample Custody Seals: Yes No

Table with columns: Sample Identification, Matrix, Date Sampled, Time Sampled, Depth, Grab, # of Cont, Parameters (BTEX, TPH, Chloride), Preservative Codes

Total 200.7 / 6010 200.8 / 6020: BRCRA 13P/PM Texas 11 N, Sb As Ba B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010: BRCRA 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: 1/3/24 8:54
Retransmitted by: (Signature) Received by: (Signature) Date/Time: 1/31 8:58



Environment Testing

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 302-0300
Midland, TX (432) 704-6440, San Antonio, TX (210) 809-3334
El Paso, TX (975) 585-3443, Lubbock, TX (806) 794-1286
Hooper, NM (575) 302-7500, Carlsbad, NM (575) 969-3189
Little Rock, AR (501) 224-5050

Work Order No: _____

Page 2 of 2

Project Manager: Tarmina Morrison Bill to: (if different)

Company Name: Enselum LLC Company Name:

Address: 3122 National Parks Highway Address:

City, State ZIP: Carlsbad, NM, 88220 City, State ZIP:

Phone: 337-257-8307 Email:

Project Name: Doest Eagle For Lr (R06) Turn Around

Project Number: 03A2884002 Routine Rush

Project Location: 31.59714, -104.12048 Due Date: 15 Day

Sampler's Name: FHorn Hill TAT starts the day received by the lab, if received by 4:30pm

PO #:

Program: USTPST PRP Brownfields RRC Superfund

State of Project:

Reporting: Level II Level III PST/UST TRRP Level IV

Deliverables: EDD ADAPT Other:

SAMPLE RECEIPT Temp Blank: Yes No Wet Lab: Yes No

Samples Received In: Yes No Thermometer ID: 110002

Cooler Custody Seals: Yes No N/A Correction Factor: 0.2

Sample Custody Seals: Yes No N/A Temperature Reading: +4.0

Total Containers: Yes No N/A Corrected Temperature: 3.8

Sample Identification	Method	Date Sampled	Time Sampled	Depth	Grab Comp	# of Cont	Parameters	Preservative Codes
ES068	S	1/30/24	1131	1	C	1	BTEX	DI Water, H ₂ O
ES070	S	1/30/24	1133	1	C	1	TPH	Meth: Me
ES072	S	1/30/24	1143	1	C	1	Chlorides	HCL: HC HNO ₃
ES075	S	1/30/24	1147	1	C	1		H ₂ SO ₄ : H ₂ NaOH: Na
ES076	S	1/30/24	1148	1	C	1		H ₃ PO ₄ : HP
ES078	S	1/30/24	1150	1	C	1		NaHSO ₄ : MABIS
ES084	S	1/30/24	1153	1	C	1		Na ₂ S ₂ O ₃ : NaSO ₂
								Zn Acetate+NaOH: Zn
								NaOH+Acetic Acid: SAPC

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

Circle Method(s) and Meta(s) to be analyzed: TCLP / SPLP 6010: BRCRA 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) [Signature] Received by: (Signature) [Signature] Date/Time: 4/31/24 9:54

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time: 4/31/24 8:58

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6077-1
SDG Number: 03C2884002

Login Number: 6077
List Number: 1
Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6077-1
SDG Number: 03C2884002

Login Number: 6077
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/01/24 11:02 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	

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 2/9/2024 11:13:54 AM

JOB DESCRIPTION

Desert Eagle Frac Line (200)
 03C2884002

JOB NUMBER

890-6086-1

Eurofins Carlsbad
 1089 N Canal St.
 Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/9/2024 11:13:54 AM

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

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

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Laboratory Job ID: 890-6086-1
SDG: 03C2884002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	13
Lab Chronicle	15
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
SDG: 03C2884002

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (200)

Job ID: 890-6086-1

Job ID: 890-6086-1

Eurofins Carlsbad

Job Narrative 890-6086-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/31/2024 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS 087 (890-6086-1) and FS 092 (890-6086-2).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS 087 (890-6086-1), FS 092 (890-6086-2), (CCV 880-72622/2) and (880-38508-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-72418 and analytical batch 880-72622 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72294 and analytical batch 880-72313 was outside the upper control limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72189 and analytical batch 880-72228 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
 SDG: 03C2884002

Client Sample ID: FS 087

Lab Sample ID: 890-6086-1

Date Collected: 01/31/24 10:59

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/05/24 16:00	02/08/24 15:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/05/24 16:00	02/08/24 15:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/05/24 16:00	02/08/24 15:12	1
m-Xylene & p-Xylene	<0.00399	U **	0.00399	mg/Kg		02/05/24 16:00	02/08/24 15:12	1
o-Xylene	<0.00200	U **	0.00200	mg/Kg		02/05/24 16:00	02/08/24 15:12	1
Xylenes, Total	<0.00399	U **	0.00399	mg/Kg		02/05/24 16:00	02/08/24 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	141	S1+	70 - 130	02/05/24 16:00	02/08/24 15:12	1
1,4-Difluorobenzene (Surr)	84		70 - 130	02/05/24 16:00	02/08/24 15:12	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/08/24 15:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/05/24 19:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/03/24 22:04	02/05/24 19:25	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/03/24 22:04	02/05/24 19:25	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/03/24 22:04	02/05/24 19:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	02/03/24 22:04	02/05/24 19:25	1
o-Terphenyl	92		70 - 130	02/03/24 22:04	02/05/24 19:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	682		49.8	mg/Kg			02/02/24 13:43	10

Client Sample ID: FS 092

Lab Sample ID: 890-6086-2

Date Collected: 01/31/24 11:15

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/05/24 16:00	02/08/24 15:38	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/05/24 16:00	02/08/24 15:38	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/05/24 16:00	02/08/24 15:38	1
m-Xylene & p-Xylene	<0.00402	U **	0.00402	mg/Kg		02/05/24 16:00	02/08/24 15:38	1
o-Xylene	<0.00201	U **	0.00201	mg/Kg		02/05/24 16:00	02/08/24 15:38	1
Xylenes, Total	<0.00402	U **	0.00402	mg/Kg		02/05/24 16:00	02/08/24 15:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	158	S1+	70 - 130	02/05/24 16:00	02/08/24 15:38	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
 SDG: 03C2884002

Client Sample ID: FS 092

Lab Sample ID: 890-6086-2

Date Collected: 01/31/24 11:15

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	116		70 - 130	02/05/24 16:00	02/08/24 15:38	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/08/24 15:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			02/05/24 20:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/03/24 22:04	02/05/24 20:28	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/03/24 22:04	02/05/24 20:28	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/03/24 22:04	02/05/24 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130	02/03/24 22:04	02/05/24 20:28	1
o-Terphenyl	108		70 - 130	02/03/24 22:04	02/05/24 20:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	749		49.6	mg/Kg			02/02/24 13:48	10

Surrogate Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
880-38508-A-1-D MS	Matrix Spike	105	103
880-38508-A-1-E MSD	Matrix Spike Duplicate	177 S1+	103
890-6086-1	FS 087	141 S1+	84
890-6086-2	FS 092	158 S1+	116
LCS 880-72418/1-A	Lab Control Sample	116	73
LCSD 880-72418/2-A	Lab Control Sample Dup	126	81
MB 880-72418/5-A	Method Blank	89	122

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
890-6086-1	FS 087	107	92
890-6086-1 MS	FS 087	123	94
890-6086-1 MSD	FS 087	126	96
890-6086-2	FS 092	127	108
LCS 880-72294/2-A	Lab Control Sample	101	102
LCSD 880-72294/3-A	Lab Control Sample Dup	104	106
MB 880-72294/1-A	Method Blank	177 S1+	161 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72418/5-A
 Matrix: Solid
 Analysis Batch: 72622

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72418

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/05/24 16:00	02/08/24 13:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/05/24 16:00	02/08/24 13:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/05/24 16:00	02/08/24 13:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/05/24 16:00	02/08/24 13:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/05/24 16:00	02/08/24 13:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/05/24 16:00	02/08/24 13:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	02/05/24 16:00	02/08/24 13:26	1
1,4-Difluorobenzene (Surr)	122		70 - 130	02/05/24 16:00	02/08/24 13:26	1

Lab Sample ID: LCS 880-72418/1-A
 Matrix: Solid
 Analysis Batch: 72622

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08382		mg/Kg		84	70 - 130
Toluene	0.100	0.09013		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.09669		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2167		mg/Kg		108	70 - 130
o-Xylene	0.100	0.1044		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	73		70 - 130

Lab Sample ID: LCSD 880-72418/2-A
 Matrix: Solid
 Analysis Batch: 72622

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72418

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.08616		mg/Kg		86	70 - 130	3	35
Toluene	0.100	0.1093		mg/Kg		109	70 - 130	19	35
Ethylbenzene	0.100	0.09912		mg/Kg		99	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2337		mg/Kg		117	70 - 130	8	35
o-Xylene	0.100	0.1196		mg/Kg		120	70 - 130	14	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	126		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

Lab Sample ID: 880-38508-A-1-D MS
 Matrix: Solid
 Analysis Batch: 72622

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 72418

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F2 F1	0.0996	0.03697	F1	mg/Kg		37	70 - 130
Toluene	<0.00200	U F2 F1	0.0996	0.03544	F1	mg/Kg		36	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
 SDG: 03C2884002

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

Lab Sample ID: 880-38508-A-1-D MS
Matrix: Solid
Analysis Batch: 72622

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 72418

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00200	U F2 F1	0.0996	0.03080	F1	mg/Kg		31	70 - 130
m-Xylene & p-Xylene	<0.00401	U F2 F1 *	0.199	0.05892	F1	mg/Kg		30	70 - 130
		+							
o-Xylene	<0.00200	U F2 F1 *	0.0996	0.04415	F1	mg/Kg		44	70 - 130
		+							
Surrogate	MS	MS							
	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	105		70 - 130						
1,4-Difluorobenzene (Surr)	103		70 - 130						

Lab Sample ID: 880-38508-A-1-E MSD
Matrix: Solid
Analysis Batch: 72622

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 72418

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Benzene	<0.00200	U F2 F1	0.0990	0.1059	F2	mg/Kg		107	70 - 130	97		35
Toluene	<0.00200	U F2 F1	0.0990	0.09447	F2	mg/Kg		95	70 - 130	91		35
Ethylbenzene	<0.00200	U F2 F1	0.0990	0.1057	F2	mg/Kg		107	70 - 130	110		35
m-Xylene & p-Xylene	<0.00401	U F2 F1 *	0.198	0.2435	F2	mg/Kg		123	70 - 130	122		35
		+										
o-Xylene	<0.00200	U F2 F1 *	0.0990	0.1149	F2	mg/Kg		116	70 - 130	89		35
		+										
Surrogate	MSD	MSD										
	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	177	S1+	70 - 130									
1,4-Difluorobenzene (Surr)	103		70 - 130									

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

Lab Sample ID: MB 880-72294/1-A
Matrix: Solid
Analysis Batch: 72313

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72294

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/03/24 22:03	02/05/24 18:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/03/24 22:03	02/05/24 18:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/03/24 22:03	02/05/24 18:23	1
Surrogate	MB	MB						
	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	177	S1+	70 - 130			02/03/24 22:03	02/05/24 18:23	1
o-Terphenyl	161	S1+	70 - 130			02/03/24 22:03	02/05/24 18:23	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
 SDG: 03C2884002

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

Lab Sample ID: LCS 880-72294/2-A
Matrix: Solid
Analysis Batch: 72313

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1104		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1038		mg/Kg		104	70 - 130		
		LCS	LCS						
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: LCSD 880-72294/3-A
Matrix: Solid
Analysis Batch: 72313

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72294

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD Limit	
Gasoline Range Organics (GRO)-C6-C10	1000	1084		mg/Kg		108	70 - 130	2	20	
Diesel Range Organics (Over C10-C28)	1000	1012		mg/Kg		101	70 - 130	2	20	
		LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	104		70 - 130							
o-Terphenyl	106		70 - 130							

Lab Sample ID: 890-6086-1 MS
Matrix: Solid
Analysis Batch: 72313

Client Sample ID: FS 087
Prep Type: Total/NA
Prep Batch: 72294

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1010	933.6		mg/Kg		90	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.8	U	1010	1193		mg/Kg		118	70 - 130	
		MS	MS							
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	123		70 - 130							
o-Terphenyl	94		70 - 130							

Lab Sample ID: 890-6086-1 MSD
Matrix: Solid
Analysis Batch: 72313

Client Sample ID: FS 087
Prep Type: Total/NA
Prep Batch: 72294

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits		RPD Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1010	941.3		mg/Kg		91	70 - 130	1	20	
Diesel Range Organics (Over C10-C28)	<49.8	U	1010	1226		mg/Kg		122	70 - 130	3	20	
		MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	126		70 - 130									

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6086-1 MSD
 Matrix: Solid
 Analysis Batch: 72313

Client Sample ID: FS 087
 Prep Type: Total/NA
 Prep Batch: 72294

Surrogate	MSD %Recovery	MSD Qualifier	Limits
<i>o</i> -Terphenyl	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72189/1-A
 Matrix: Solid
 Analysis Batch: 72228

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/02/24 13:09	1

Lab Sample ID: LCS 880-72189/2-A
 Matrix: Solid
 Analysis Batch: 72228

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	248.5		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-72189/3-A
 Matrix: Solid
 Analysis Batch: 72228

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	249.2		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 880-38787-A-1-B MS
 Matrix: Solid
 Analysis Batch: 72228

Client Sample ID: Matrix Spike
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3020	F1	1260	4119	F1	mg/Kg		87	90 - 110

Lab Sample ID: 880-38787-A-1-C MSD
 Matrix: Solid
 Analysis Batch: 72228

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3020	F1	1260	4139	F1	mg/Kg		88	90 - 110	0	20

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
 SDG: 03C2884002

GC VOA

Prep Batch: 72418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6086-1	FS 087	Total/NA	Solid	5035	
890-6086-2	FS 092	Total/NA	Solid	5035	
MB 880-72418/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72418/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72418/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-38508-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-38508-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 72622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6086-1	FS 087	Total/NA	Solid	8021B	72418
890-6086-2	FS 092	Total/NA	Solid	8021B	72418
MB 880-72418/5-A	Method Blank	Total/NA	Solid	8021B	72418
LCS 880-72418/1-A	Lab Control Sample	Total/NA	Solid	8021B	72418
LCSD 880-72418/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72418
880-38508-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	72418
880-38508-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	72418

Analysis Batch: 72740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6086-1	FS 087	Total/NA	Solid	Total BTEX	
890-6086-2	FS 092	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6086-1	FS 087	Total/NA	Solid	8015NM Prep	
890-6086-2	FS 092	Total/NA	Solid	8015NM Prep	
MB 880-72294/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72294/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6086-1 MS	FS 087	Total/NA	Solid	8015NM Prep	
890-6086-1 MSD	FS 087	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6086-1	FS 087	Total/NA	Solid	8015B NM	72294
890-6086-2	FS 092	Total/NA	Solid	8015B NM	72294
MB 880-72294/1-A	Method Blank	Total/NA	Solid	8015B NM	72294
LCS 880-72294/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72294
LCSD 880-72294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72294
890-6086-1 MS	FS 087	Total/NA	Solid	8015B NM	72294
890-6086-1 MSD	FS 087	Total/NA	Solid	8015B NM	72294

Analysis Batch: 72495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6086-1	FS 087	Total/NA	Solid	8015 NM	
890-6086-2	FS 092	Total/NA	Solid	8015 NM	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
SDG: 03C2884002

HPLC/IC

Leach Batch: 72189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6086-1	FS 087	Soluble	Solid	DI Leach	
890-6086-2	FS 092	Soluble	Solid	DI Leach	
MB 880-72189/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72189/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72189/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38787-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-38787-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 72228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6086-1	FS 087	Soluble	Solid	300.0	72189
890-6086-2	FS 092	Soluble	Solid	300.0	72189
MB 880-72189/1-A	Method Blank	Soluble	Solid	300.0	72189
LCS 880-72189/2-A	Lab Control Sample	Soluble	Solid	300.0	72189
LCSD 880-72189/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72189
880-38787-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	72189
880-38787-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	72189

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
 SDG: 03C2884002

Client Sample ID: FS 087

Lab Sample ID: 890-6086-1

Date Collected: 01/31/24 10:59

Matrix: Solid

Date Received: 01/31/24 16:30

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	72418	02/05/24 16:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72622	02/08/24 15:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72740	02/08/24 15:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			72495	02/05/24 19:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	72294	02/03/24 22:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72313	02/05/24 19:25	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72189	02/02/24 09:16	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	72228	02/02/24 13:43	CH	EET MID

Client Sample ID: FS 092

Lab Sample ID: 890-6086-2

Date Collected: 01/31/24 11:15

Matrix: Solid

Date Received: 01/31/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	72418	02/05/24 16:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72622	02/08/24 15:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72740	02/08/24 15:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			72495	02/05/24 20:28	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	72294	02/03/24 22:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72313	02/05/24 20:28	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72189	02/02/24 09:16	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	72228	02/02/24 13:48	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
SDG: 03C2884002

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	T104704400-23-26	06-30-24

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

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

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
SDG: 03C2884002

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6086-1
SDG: 03C2884002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6086-1	FS 087	Solid	01/31/24 10:59	01/31/24 16:30	1'
890-6086-2	FS 092	Solid	01/31/24 11:15	01/31/24 16:30	1'

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (714) 902-4590
Midland, TX (432) 704-4440 San Antonio, TX (210) 510-3334
El Paso, TX (915) 835-3443 Lubbock, TX (806) 794-1292
Ft. Worth, TX (817) 377-7550 Carrollton, TX (972) 588-3199

Environment Testing
Xenco

Work Order No:

6086 page 1 of 1

Project Manager: Jacoma Morrissey
Company Name: EILSO LM, LLC
Address: 3122 National Parks Hwy
City, State Zip: Carrollton, NM 88220
Phone: 337-257-8302
Project Name: DEXT Eagle Gas Line (Geo) Turn Around
Project Number: 0328884002
Project Location: 325709-104.12018
Sampler's Name: MAND SARGIS
PO #:

Bill to (if different):
Company Name:
Address:
City, State Zip:
Email: pmorrissey@eilsoilm.com

Program: US/PTST PRP Brownfields RRC Superfund
State of Project:
Reporting: Level II Level III PSTAUST TRRP Level IV
Deliverables: EDO ADAPT Other:

Work Order Comments:

SAMPLE RECEIPT				ANALYSIS REQUEST			
Yes/No	Yes/No	Yes/No	Yes/No	Form No.	Form Code	Form Name	Form Description
Yes	Yes	Yes	Yes	1	1	CHLORIDES	
Yes	Yes	Yes	Yes	2	2	TRP	
Yes	Yes	Yes	Yes	3	3	PTX	

Sample Identification:
 FS087
 FS092
 Matrix: S
 Date Sampled: 11/31/24
 Time Sampled: 10:59
 Depth: 1'
 Comp: C
 # of Cont: 1

Formalities:
 Date Sampled: 11/31/24
 Time Sampled: 11:15
 Depth: 1'
 Comp: C
 # of Cont: 1

Preservative Codes:
 None: NO
 DI Water: H₂O
 Cool: Cool
 MeOH: Me
 HCL: HCl
 HNO₃: HNO₃
 H₂SO₄: H₂SO₄
 H₂PO₄: HP
 NaHSO₄: NABS
 Na₂SO₄: NaSO
 Zn Acetate: NaOH: Zn
 NaOH: Acetic Acid: SAPE

Sample Comments:

Total: 2007 / 6010 200.8 / 6020
Circle Method(s) and Metal(s) to be analyzed: BRCRA TCLP / SPLP 6010 : BRCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U
 BRCRA TCLP / SPLP 6010 : BRCRA 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): [Signature]
Date/Time: 11/24/24 16:30
Received by (Signature): [Signature]
Date/Time:



Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6086-1

SDG Number: 03C2884002

Login Number: 6086

List Source: Eurofins Carlsbad

List Number: 1

Creator: Bruns, Shannon

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6086-1

SDG Number: 03C2884002

Login Number: 6086

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/02/24 11:22 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	

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 2/14/2024 2:29:36 PM

JOB DESCRIPTION

Desert Eagle Frac Line (200)
 03C2884002

JOB NUMBER

890-6087-1

Eurofins Carlsbad
 1089 N Canal St.
 Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/14/2024 2:29:36 PM

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

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

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Laboratory Job ID: 890-6087-1
SDG: 03C2884002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	18
QC Sample Results	20
QC Association Summary	25
Lab Chronicle	29
Certification Summary	34
Method Summary	35
Sample Summary	36
Chain of Custody	37
Receipt Checklists	39

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
SDG: 03C2884002

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

HPLC/IC

Qualifier	Qualifier Description
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: Desert Eagle Frac Line (200)

Job ID: 890-6087-1

Job ID: 890-6087-1

Eurofins Carlsbad

Job Narrative 890-6087-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 1/31/2024 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS 042 (890-6087-1), FS 047 (890-6087-2), FS 059 (890-6087-3), FS 061 (890-6087-4), FS 085 (890-6087-5), FS 088 (890-6087-6), FS 089 (890-6087-7), FS 091 (890-6087-8), FS 093 (890-6087-9), FS 094 (890-6087-10), FS 095 (890-6087-11), FS 101 (890-6087-12), FS 102 (890-6087-13), FS 103 (890-6087-14) and FS 104 (890-6087-15).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-72820 and analytical batch 880-73011 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73011 recovered under the lower control limit for Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-72820 and analytical batch 880-73011 was outside the upper control limits.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72344 and analytical batch 880-72614 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS 061 (890-6087-4), FS 085 (890-6087-5), FS 089 (890-6087-7), FS 093 (890-6087-9) and FS 095 (890-6087-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-72344 and analytical batch 880-72614 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 042

Lab Sample ID: 890-6087-1

Date Collected: 01/31/24 08:52

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200	mg/Kg		02/11/24 13:28	02/14/24 00:48	1
Toluene	<0.00200	U F1	0.00200	mg/Kg		02/11/24 13:28	02/14/24 00:48	1
Ethylbenzene	<0.00200	U F1	0.00200	mg/Kg		02/11/24 13:28	02/14/24 00:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/11/24 13:28	02/14/24 00:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 00:48	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/11/24 13:28	02/14/24 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	02/11/24 13:28	02/14/24 00:48	1
1,4-Difluorobenzene (Surr)	111		70 - 130	02/11/24 13:28	02/14/24 00:48	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/14/24 00:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/08/24 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/05/24 10:17	02/08/24 10:20	1
Diesel Range Organics (Over C10-C28)	<49.8	U F1	49.8	mg/Kg		02/05/24 10:17	02/08/24 10:20	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/05/24 10:17	02/08/24 10:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	02/05/24 10:17	02/08/24 10:20	1
o-Terphenyl	98		70 - 130	02/05/24 10:17	02/08/24 10:20	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		5.00	mg/Kg			02/05/24 21:16	1

Client Sample ID: FS 047

Lab Sample ID: 890-6087-2

Date Collected: 01/31/24 08:57

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 01:09	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 01:09	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 01:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 01:09	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 01:09	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 01:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	02/11/24 13:28	02/14/24 01:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 047

Lab Sample ID: 890-6087-2

Date Collected: 01/31/24 08:57

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	117		70 - 130	02/11/24 13:28	02/14/24 01:09	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 01:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/08/24 11:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/05/24 10:17	02/08/24 11:26	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/05/24 10:17	02/08/24 11:26	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/05/24 10:17	02/08/24 11:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	02/05/24 10:17	02/08/24 11:26	1
o-Terphenyl	99		70 - 130	02/05/24 10:17	02/08/24 11:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	313		4.99	mg/Kg			02/05/24 21:36	1

Client Sample ID: FS 059

Lab Sample ID: 890-6087-3

Date Collected: 01/31/24 09:22

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 01:29	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 01:29	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 01:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 01:29	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 01:29	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 01:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	02/11/24 13:28	02/14/24 01:29	1
1,4-Difluorobenzene (Surr)	120		70 - 130	02/11/24 13:28	02/14/24 01:29	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 01:29	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/08/24 11:48	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 059

Lab Sample ID: 890-6087-3

Date Collected: 01/31/24 09:22

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 11:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 11:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 11:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			02/05/24 10:17	02/08/24 11:48	1
o-Terphenyl	117		70 - 130			02/05/24 10:17	02/08/24 11:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	281		4.96	mg/Kg			02/05/24 21:43	1

Client Sample ID: FS 061

Lab Sample ID: 890-6087-4

Date Collected: 01/31/24 09:29

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 01:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 01:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 01:50	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/11/24 13:28	02/14/24 01:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 01:50	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/24 13:28	02/14/24 01:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/11/24 13:28	02/14/24 01:50	1
1,4-Difluorobenzene (Surr)	110		70 - 130			02/11/24 13:28	02/14/24 01:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/14/24 01:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/08/24 12:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/05/24 10:17	02/08/24 12:09	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/05/24 10:17	02/08/24 12:09	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/05/24 10:17	02/08/24 12:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	143	S1+	70 - 130			02/05/24 10:17	02/08/24 12:09	1
o-Terphenyl	159	S1+	70 - 130			02/05/24 10:17	02/08/24 12:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 061

Lab Sample ID: 890-6087-4

Date Collected: 01/31/24 09:29

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.5		4.98	mg/Kg			02/05/24 21:50	1

Client Sample ID: FS 085

Lab Sample ID: 890-6087-5

Date Collected: 01/31/24 10:51

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 02:10	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 02:10	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 02:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/11/24 13:28	02/14/24 02:10	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 02:10	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/11/24 13:28	02/14/24 02:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			02/11/24 13:28	02/14/24 02:10	1
1,4-Difluorobenzene (Surr)	127		70 - 130			02/11/24 13:28	02/14/24 02:10	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/14/24 02:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/08/24 12:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/05/24 10:17	02/08/24 12:31	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/05/24 10:17	02/08/24 12:31	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/05/24 10:17	02/08/24 12:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130			02/05/24 10:17	02/08/24 12:31	1
o-Terphenyl	133	S1+	70 - 130			02/05/24 10:17	02/08/24 12:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	240		5.02	mg/Kg			02/05/24 21:57	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 088

Lab Sample ID: 890-6087-6

Date Collected: 01/31/24 11:00

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 02:30	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 02:30	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 02:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 02:30	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 02:30	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	02/11/24 13:28	02/14/24 02:30	1
1,4-Difluorobenzene (Surr)	113		70 - 130	02/11/24 13:28	02/14/24 02:30	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 02:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/08/24 12:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/05/24 10:17	02/08/24 12:53	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/05/24 10:17	02/08/24 12:53	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/05/24 10:17	02/08/24 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	02/05/24 10:17	02/08/24 12:53	1
o-Terphenyl	117		70 - 130	02/05/24 10:17	02/08/24 12:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	156		4.96	mg/Kg			02/05/24 22:17	1

Client Sample ID: FS 089

Lab Sample ID: 890-6087-7

Date Collected: 01/31/24 11:06

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 02:51	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 02:51	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 02:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 02:51	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 02:51	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 02:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	02/11/24 13:28	02/14/24 02:51	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 089

Lab Sample ID: 890-6087-7

Date Collected: 01/31/24 11:06

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	115		70 - 130	02/11/24 13:28	02/14/24 02:51	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 02:51	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/08/24 13:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/05/24 10:17	02/08/24 13:15	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/05/24 10:17	02/08/24 13:15	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/05/24 10:17	02/08/24 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130	02/05/24 10:17	02/08/24 13:15	1
o-Terphenyl	143	S1+	70 - 130	02/05/24 10:17	02/08/24 13:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	93.9		4.99	mg/Kg			02/05/24 22:24	1

Client Sample ID: FS 091

Lab Sample ID: 890-6087-8

Date Collected: 01/31/24 11:14

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 03:11	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 03:11	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 03:11	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/11/24 13:28	02/14/24 03:11	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 03:11	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/24 13:28	02/14/24 03:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	02/11/24 13:28	02/14/24 03:11	1
1,4-Difluorobenzene (Surr)	122		70 - 130	02/11/24 13:28	02/14/24 03:11	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/14/24 03:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/08/24 13:36	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 091

Lab Sample ID: 890-6087-8

Date Collected: 01/31/24 11:14

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/05/24 10:17	02/08/24 13:36	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/05/24 10:17	02/08/24 13:36	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/05/24 10:17	02/08/24 13:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			02/05/24 10:17	02/08/24 13:36	1
o-Terphenyl	124		70 - 130			02/05/24 10:17	02/08/24 13:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	631		4.98	mg/Kg			02/05/24 22:31	1

Client Sample ID: FS 093

Lab Sample ID: 890-6087-9

Date Collected: 01/31/24 11:29

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 03:32	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 03:32	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 03:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/11/24 13:28	02/14/24 03:32	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 03:32	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/11/24 13:28	02/14/24 03:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			02/11/24 13:28	02/14/24 03:32	1
1,4-Difluorobenzene (Surr)	109		70 - 130			02/11/24 13:28	02/14/24 03:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/14/24 03:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/08/24 13:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 13:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 13:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 13:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130			02/05/24 10:17	02/08/24 13:59	1
o-Terphenyl	155	S1+	70 - 130			02/05/24 10:17	02/08/24 13:59	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 093

Lab Sample ID: 890-6087-9

Date Collected: 01/31/24 11:29
 Date Received: 01/31/24 16:30
 Sample Depth: 1'

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.1		5.03	mg/Kg			02/05/24 22:37	1

Client Sample ID: FS 094

Lab Sample ID: 890-6087-10

Date Collected: 01/31/24 11:30
 Date Received: 01/31/24 16:30
 Sample Depth: 1'

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 03:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 03:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 03:52	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/11/24 13:28	02/14/24 03:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 03:52	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/11/24 13:28	02/14/24 03:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			02/11/24 13:28	02/14/24 03:52	1
1,4-Difluorobenzene (Surr)	115		70 - 130			02/11/24 13:28	02/14/24 03:52	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/14/24 03:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/08/24 14:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/05/24 10:17	02/08/24 14:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/05/24 10:17	02/08/24 14:20	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/05/24 10:17	02/08/24 14:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			02/05/24 10:17	02/08/24 14:20	1
o-Terphenyl	121		70 - 130			02/05/24 10:17	02/08/24 14:20	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	235		4.98	mg/Kg			02/05/24 22:44	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 095

Lab Sample ID: 890-6087-11

Date Collected: 01/31/24 11:38

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 05:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 05:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 05:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 05:42	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 05:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 05:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/11/24 13:28	02/14/24 05:42	1
1,4-Difluorobenzene (Surr)	117		70 - 130	02/11/24 13:28	02/14/24 05:42	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 05:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/08/24 15:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/05/24 10:17	02/08/24 15:04	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/05/24 10:17	02/08/24 15:04	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/05/24 10:17	02/08/24 15:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	140	S1+	70 - 130	02/05/24 10:17	02/08/24 15:04	1
o-Terphenyl	150	S1+	70 - 130	02/05/24 10:17	02/08/24 15:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	132		5.03	mg/Kg			02/05/24 22:51	1

Client Sample ID: FS 101

Lab Sample ID: 890-6087-12

Date Collected: 01/31/24 14:32

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 06:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 06:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 06:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 06:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/11/24 13:28	02/14/24 06:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/11/24 13:28	02/14/24 06:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	02/11/24 13:28	02/14/24 06:02	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 101

Lab Sample ID: 890-6087-12

Date Collected: 01/31/24 14:32

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	114		70 - 130	02/11/24 13:28	02/14/24 06:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 06:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/08/24 15:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 15:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 15:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 15:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	02/05/24 10:17	02/08/24 15:26	1
o-Terphenyl	108		70 - 130	02/05/24 10:17	02/08/24 15:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		4.97	mg/Kg			02/05/24 23:11	1

Client Sample ID: FS 102

Lab Sample ID: 890-6087-13

Date Collected: 01/31/24 14:33

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 06:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 06:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 06:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/11/24 13:28	02/14/24 06:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 06:23	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/11/24 13:28	02/14/24 06:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/11/24 13:28	02/14/24 06:23	1
1,4-Difluorobenzene (Surr)	116		70 - 130	02/11/24 13:28	02/14/24 06:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/14/24 06:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/08/24 15:48	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 102

Lab Sample ID: 890-6087-13

Date Collected: 01/31/24 14:33

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 15:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 15:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/05/24 10:17	02/08/24 15:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/05/24 10:17	02/08/24 15:48	1
o-Terphenyl	107		70 - 130			02/05/24 10:17	02/08/24 15:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	101		5.05	mg/Kg			02/05/24 23:18	1

Client Sample ID: FS 103

Lab Sample ID: 890-6087-14

Date Collected: 01/31/24 14:40

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 06:43	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 06:43	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 06:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/11/24 13:28	02/14/24 06:43	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/11/24 13:28	02/14/24 06:43	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/11/24 13:28	02/14/24 06:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			02/11/24 13:28	02/14/24 06:43	1
1,4-Difluorobenzene (Surr)	110		70 - 130			02/11/24 13:28	02/14/24 06:43	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/14/24 06:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/08/24 16:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		02/05/24 10:17	02/08/24 16:09	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		02/05/24 10:17	02/08/24 16:09	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		02/05/24 10:17	02/08/24 16:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			02/05/24 10:17	02/08/24 16:09	1
o-Terphenyl	112		70 - 130			02/05/24 10:17	02/08/24 16:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 103

Lab Sample ID: 890-6087-14

Date Collected: 01/31/24 14:40

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	93.7		4.98	mg/Kg			02/05/24 23:38	1

Client Sample ID: FS 104

Lab Sample ID: 890-6087-15

Date Collected: 01/31/24 14:41

Matrix: Solid

Date Received: 01/31/24 16:30

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 07:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 07:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 07:04	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/11/24 13:28	02/14/24 07:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 07:04	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/11/24 13:28	02/14/24 07:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			02/11/24 13:28	02/14/24 07:04	1
1,4-Difluorobenzene (Surr)	116		70 - 130			02/11/24 13:28	02/14/24 07:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/14/24 07:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/08/24 16:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/05/24 10:17	02/08/24 16:31	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/05/24 10:17	02/08/24 16:31	1
Oll Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/05/24 10:17	02/08/24 16:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			02/05/24 10:17	02/08/24 16:31	1
o-Terphenyl	93		70 - 130			02/05/24 10:17	02/08/24 16:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.7		5.04	mg/Kg			02/05/24 23:45	1

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-6087-1	FS 042	81	111
890-6087-1 MS	FS 042	98	103
890-6087-1 MSD	FS 042	100	110
890-6087-2	FS 047	94	117
890-6087-3	FS 059	103	120
890-6087-4	FS 061	104	110
890-6087-5	FS 085	114	127
890-6087-6	FS 088	106	113
890-6087-7	FS 089	107	115
890-6087-8	FS 091	108	122
890-6087-9	FS 093	98	109
890-6087-10	FS 094	106	115
890-6087-11	FS 095	85	117
890-6087-12	FS 101	94	114
890-6087-13	FS 102	104	116
890-6087-14	FS 103	106	110
890-6087-15	FS 104	116	116
LCS 880-72820/1-A	Lab Control Sample	97	106
LCSD 880-72820/2-A	Lab Control Sample Dup	98	102
MB 880-72820/5-A	Method Blank	128	137 S1+
MB 880-73000/5-A	Method Blank	124	123

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

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-6087-1	FS 042	90	98
890-6087-1 MS	FS 042	89	88
890-6087-1 MSD	FS 042	87	85
890-6087-2	FS 047	90	99
890-6087-3	FS 059	105	117
890-6087-4	FS 061	143 S1+	159 S1+
890-6087-5	FS 085	126	133 S1+
890-6087-6	FS 088	105	117
890-6087-7	FS 089	127	143 S1+
890-6087-8	FS 091	115	124
890-6087-9	FS 093	133 S1+	155 S1+
890-6087-10	FS 094	110	121
890-6087-11	FS 095	140 S1+	150 S1+
890-6087-12	FS 101	98	108
890-6087-13	FS 102	98	107
890-6087-14	FS 103	100	112
890-6087-15	FS 104	86	93
LCS 880-72344/2-A	Lab Control Sample	99	104

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
SDG: 03C2884002

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)
LCS8 880-72344/3-A	Lab Control Sample Dup	95	100
MB 880-72344/1-A	Method Blank	145 S1+	168 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

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

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72820/5-A
 Matrix: Solid
 Analysis Batch: 73011

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72820

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 00:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 00:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 00:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/11/24 13:28	02/14/24 00:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/11/24 13:28	02/14/24 00:20	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/11/24 13:28	02/14/24 00:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	02/11/24 13:28	02/14/24 00:20	1
1,4-Difluorobenzene (Surr)	137	S1+	70 - 130	02/11/24 13:28	02/14/24 00:20	1

Lab Sample ID: LCS 880-72820/1-A
 Matrix: Solid
 Analysis Batch: 73011

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09088		mg/Kg		91	70 - 130
Toluene	0.100	0.08502		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.07830		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	0.200	0.1800		mg/Kg		90	70 - 130
o-Xylene	0.100	0.08129		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-72820/2-A
 Matrix: Solid
 Analysis Batch: 73011

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72820

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1019		mg/Kg		102	70 - 130	11	35
Toluene	0.100	0.09440		mg/Kg		94	70 - 130	10	35
Ethylbenzene	0.100	0.09240		mg/Kg		92	70 - 130	17	35
m-Xylene & p-Xylene	0.200	0.2069		mg/Kg		103	70 - 130	14	35
o-Xylene	0.100	0.09119		mg/Kg		91	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-6087-1 MS
 Matrix: Solid
 Analysis Batch: 73011

Client Sample ID: FS 042
 Prep Type: Total/NA
 Prep Batch: 72820

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0996	0.06989		mg/Kg		70	70 - 130
Toluene	<0.00200	U F1	0.0996	0.07284		mg/Kg		73	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6087-1 MS
 Matrix: Solid
 Analysis Batch: 73011

Client Sample ID: FS 042
 Prep Type: Total/NA
 Prep Batch: 72820

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00200	U F1	0.0996	0.06311	F1	mg/Kg		63	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1533		mg/Kg		77	70 - 130
o-Xylene	<0.00200	U	0.0996	0.07150		mg/Kg		72	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 890-6087-1 MSD
 Matrix: Solid
 Analysis Batch: 73011

Client Sample ID: FS 042
 Prep Type: Total/NA
 Prep Batch: 72820

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00200	U F1	0.0990	0.06872	F1	mg/Kg		69	70 - 130	2	35
Toluene	<0.00200	U F1	0.0990	0.06874	F1	mg/Kg		69	70 - 130	6	35
Ethylbenzene	<0.00200	U F1	0.0990	0.06232	F1	mg/Kg		63	70 - 130	1	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.1573		mg/Kg		79	70 - 130	3	35
o-Xylene	<0.00200	U	0.0990	0.07326		mg/Kg		74	70 - 130	2	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: MB 880-73000/5-A
 Matrix: Solid
 Analysis Batch: 73011

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 73000

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/24 08:16	02/13/24 12:44		1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/24 08:16	02/13/24 12:44		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/13/24 08:16	02/13/24 12:44		1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/13/24 08:16	02/13/24 12:44		1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/13/24 08:16	02/13/24 12:44		1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/13/24 08:16	02/13/24 12:44		1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil	Fac
	%Recovery	Qualifier					
4-Bromofluorobenzene (Surr)	124		70 - 130	02/13/24 08:16	02/13/24 12:44		1
1,4-Difluorobenzene (Surr)	123		70 - 130	02/13/24 08:16	02/13/24 12:44		1

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

Lab Sample ID: MB 880-72344/1-A
 Matrix: Solid
 Analysis Batch: 72614

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72344

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/05/24 10:17	02/08/24 07:47		1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

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

Lab Sample ID: MB 880-72344/1-A
Matrix: Solid
Analysis Batch: 72614

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72344

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/05/24 10:17	02/08/24 07:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/05/24 10:17	02/08/24 07:47	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier		Prepared	Analyzed	Dil Fac		
1-Chlorooctane	145	S1+	70 - 130			02/05/24 10:17	02/08/24 07:47	1
o-Terphenyl	168	S1+	70 - 130			02/05/24 10:17	02/08/24 07:47	1

Lab Sample ID: LCS 880-72344/2-A
Matrix: Solid
Analysis Batch: 72614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72344

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	919.5		mg/Kg		92	70 - 130
Surrogate	LCS	LCS	Limits			%Rec	
	%Recovery	Qualifier		%Rec	Limits		
1-Chlorooctane	99		70 - 130				
o-Terphenyl	104		70 - 130				

Lab Sample ID: LCSD 880-72344/3-A
Matrix: Solid
Analysis Batch: 72614

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72344

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	883.9		mg/Kg		88	70 - 130	4	20
Surrogate	LCSD	LCSD	Limits			%Rec			
	%Recovery	Qualifier		%Rec	Limits				
1-Chlorooctane	95		70 - 130						
o-Terphenyl	100		70 - 130						

Lab Sample ID: 890-6087-1 MS
Matrix: Solid
Analysis Batch: 72614

Client Sample ID: FS 042
Prep Type: Total/NA
Prep Batch: 72344

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1010	1052		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F1	1010	693.6	F1	mg/Kg		66	70 - 130
Surrogate	MS	MS	Limits			%Rec			
	%Recovery	Qualifier		%Rec	Limits				
1-Chlorooctane	89		70 - 130						
o-Terphenyl	88		70 - 130						

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6087-1 MSD
 Matrix: Solid
 Analysis Batch: 72614

Client Sample ID: FS 042
 Prep Type: Total/NA
 Prep Batch: 72344

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1010	1089		mg/Kg		104	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	1010	674.4	F1	mg/Kg		64	70 - 130	3	20
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
1-Chlorooctane	87		70 - 130								
o-Terphenyl	85		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72131/1-A
 Matrix: Solid
 Analysis Batch: 72329

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/05/24 20:56	1

Lab Sample ID: LCS 880-72131/2-A
 Matrix: Solid
 Analysis Batch: 72329

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	249.0		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-72131/3-A
 Matrix: Solid
 Analysis Batch: 72329

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	248.1		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 890-6087-1 MS
 Matrix: Solid
 Analysis Batch: 72329

Client Sample ID: FS 042
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	110		250	346.6		mg/Kg		95	90 - 110

Lab Sample ID: 890-6087-1 MSD
 Matrix: Solid
 Analysis Batch: 72329

Client Sample ID: FS 042
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	110		250	349.5		mg/Kg		96	90 - 110	1	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-6087-11 MS
 Matrix: Solid
 Analysis Batch: 72329

Client Sample ID: FS 095
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	132		252	359.4		mg/Kg		90	90 - 110

Lab Sample ID: 890-6087-11 MSD
 Matrix: Solid
 Analysis Batch: 72329

Client Sample ID: FS 095
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	132		252	360.4		mg/Kg		91	90 - 110	0	20

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

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

GC VOA

Prep Batch: 72820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-1	FS 042	Total/NA	Solid	5035	
890-6087-2	FS 047	Total/NA	Solid	5035	
890-6087-3	FS 059	Total/NA	Solid	5035	
890-6087-4	FS 061	Total/NA	Solid	5035	
890-6087-5	FS 085	Total/NA	Solid	5035	
890-6087-6	FS 088	Total/NA	Solid	5035	
890-6087-7	FS 089	Total/NA	Solid	5035	
890-6087-8	FS 091	Total/NA	Solid	5035	
890-6087-9	FS 093	Total/NA	Solid	5035	
890-6087-10	FS 094	Total/NA	Solid	5035	
890-6087-11	FS 095	Total/NA	Solid	5035	
890-6087-12	FS 101	Total/NA	Solid	5035	
890-6087-13	FS 102	Total/NA	Solid	5035	
890-6087-14	FS 103	Total/NA	Solid	5035	
890-6087-15	FS 104	Total/NA	Solid	5035	
MB 880-72820/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72820/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72820/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6087-1 MS	FS 042	Total/NA	Solid	5035	
890-6087-1 MSD	FS 042	Total/NA	Solid	5035	

Prep Batch: 73000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73000/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-1	FS 042	Total/NA	Solid	8021B	72820
890-6087-2	FS 047	Total/NA	Solid	8021B	72820
890-6087-3	FS 059	Total/NA	Solid	8021B	72820
890-6087-4	FS 061	Total/NA	Solid	8021B	72820
890-6087-5	FS 085	Total/NA	Solid	8021B	72820
890-6087-6	FS 088	Total/NA	Solid	8021B	72820
890-6087-7	FS 089	Total/NA	Solid	8021B	72820
890-6087-8	FS 091	Total/NA	Solid	8021B	72820
890-6087-9	FS 093	Total/NA	Solid	8021B	72820
890-6087-10	FS 094	Total/NA	Solid	8021B	72820
890-6087-11	FS 095	Total/NA	Solid	8021B	72820
890-6087-12	FS 101	Total/NA	Solid	8021B	72820
890-6087-13	FS 102	Total/NA	Solid	8021B	72820
890-6087-14	FS 103	Total/NA	Solid	8021B	72820
890-6087-15	FS 104	Total/NA	Solid	8021B	72820
MB 880-72820/5-A	Method Blank	Total/NA	Solid	8021B	72820
MB 880-73000/5-A	Method Blank	Total/NA	Solid	8021B	73000
LCS 880-72820/1-A	Lab Control Sample	Total/NA	Solid	8021B	72820
LCSD 880-72820/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72820
890-6087-1 MS	FS 042	Total/NA	Solid	8021B	72820
890-6087-1 MSD	FS 042	Total/NA	Solid	8021B	72820

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

GC VOA

Analysis Batch: 73152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-1	FS 042	Total/NA	Solid	Total BTEX	
890-6087-2	FS 047	Total/NA	Solid	Total BTEX	
890-6087-3	FS 059	Total/NA	Solid	Total BTEX	
890-6087-4	FS 061	Total/NA	Solid	Total BTEX	
890-6087-5	FS 085	Total/NA	Solid	Total BTEX	
890-6087-6	FS 088	Total/NA	Solid	Total BTEX	
890-6087-7	FS 089	Total/NA	Solid	Total BTEX	
890-6087-8	FS 091	Total/NA	Solid	Total BTEX	
890-6087-9	FS 093	Total/NA	Solid	Total BTEX	
890-6087-10	FS 094	Total/NA	Solid	Total BTEX	
890-6087-11	FS 095	Total/NA	Solid	Total BTEX	
890-6087-12	FS 101	Total/NA	Solid	Total BTEX	
890-6087-13	FS 102	Total/NA	Solid	Total BTEX	
890-6087-14	FS 103	Total/NA	Solid	Total BTEX	
890-6087-15	FS 104	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-1	FS 042	Total/NA	Solid	8015NM Prep	
890-6087-2	FS 047	Total/NA	Solid	8015NM Prep	
890-6087-3	FS 059	Total/NA	Solid	8015NM Prep	
890-6087-4	FS 061	Total/NA	Solid	8015NM Prep	
890-6087-5	FS 085	Total/NA	Solid	8015NM Prep	
890-6087-6	FS 088	Total/NA	Solid	8015NM Prep	
890-6087-7	FS 089	Total/NA	Solid	8015NM Prep	
890-6087-8	FS 091	Total/NA	Solid	8015NM Prep	
890-6087-9	FS 093	Total/NA	Solid	8015NM Prep	
890-6087-10	FS 094	Total/NA	Solid	8015NM Prep	
890-6087-11	FS 095	Total/NA	Solid	8015NM Prep	
890-6087-12	FS 101	Total/NA	Solid	8015NM Prep	
890-6087-13	FS 102	Total/NA	Solid	8015NM Prep	
890-6087-14	FS 103	Total/NA	Solid	8015NM Prep	
890-6087-15	FS 104	Total/NA	Solid	8015NM Prep	
MB 880-72344/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72344/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6087-1 MS	FS 042	Total/NA	Solid	8015NM Prep	
890-6087-1 MSD	FS 042	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-1	FS 042	Total/NA	Solid	8015B NM	72344
890-6087-2	FS 047	Total/NA	Solid	8015B NM	72344
890-6087-3	FS 059	Total/NA	Solid	8015B NM	72344
890-6087-4	FS 061	Total/NA	Solid	8015B NM	72344
890-6087-5	FS 085	Total/NA	Solid	8015B NM	72344
890-6087-6	FS 088	Total/NA	Solid	8015B NM	72344
890-6087-7	FS 089	Total/NA	Solid	8015B NM	72344
890-6087-8	FS 091	Total/NA	Solid	8015B NM	72344

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

GC Semi VOA (Continued)

Analysis Batch: 72614 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-9	FS 093	Total/NA	Solid	8015B NM	72344
890-6087-10	FS 094	Total/NA	Solid	8015B NM	72344
890-6087-11	FS 095	Total/NA	Solid	8015B NM	72344
890-6087-12	FS 101	Total/NA	Solid	8015B NM	72344
890-6087-13	FS 102	Total/NA	Solid	8015B NM	72344
890-6087-14	FS 103	Total/NA	Solid	8015B NM	72344
890-6087-15	FS 104	Total/NA	Solid	8015B NM	72344
MB 880-72344/1-A	Method Blank	Total/NA	Solid	8015B NM	72344
LCS 880-72344/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72344
LCSD 880-72344/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72344
890-6087-1 MS	FS 042	Total/NA	Solid	8015B NM	72344
890-6087-1 MSD	FS 042	Total/NA	Solid	8015B NM	72344

Analysis Batch: 72772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-1	FS 042	Total/NA	Solid	8015 NM	
890-6087-2	FS 047	Total/NA	Solid	8015 NM	
890-6087-3	FS 059	Total/NA	Solid	8015 NM	
890-6087-4	FS 061	Total/NA	Solid	8015 NM	
890-6087-5	FS 085	Total/NA	Solid	8015 NM	
890-6087-6	FS 088	Total/NA	Solid	8015 NM	
890-6087-7	FS 089	Total/NA	Solid	8015 NM	
890-6087-8	FS 091	Total/NA	Solid	8015 NM	
890-6087-9	FS 093	Total/NA	Solid	8015 NM	
890-6087-10	FS 094	Total/NA	Solid	8015 NM	
890-6087-11	FS 095	Total/NA	Solid	8015 NM	
890-6087-12	FS 101	Total/NA	Solid	8015 NM	
890-6087-13	FS 102	Total/NA	Solid	8015 NM	
890-6087-14	FS 103	Total/NA	Solid	8015 NM	
890-6087-15	FS 104	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 72131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-1	FS 042	Soluble	Solid	DI Leach	
890-6087-2	FS 047	Soluble	Solid	DI Leach	
890-6087-3	FS 059	Soluble	Solid	DI Leach	
890-6087-4	FS 061	Soluble	Solid	DI Leach	
890-6087-5	FS 085	Soluble	Solid	DI Leach	
890-6087-6	FS 088	Soluble	Solid	DI Leach	
890-6087-7	FS 089	Soluble	Solid	DI Leach	
890-6087-8	FS 091	Soluble	Solid	DI Leach	
890-6087-9	FS 093	Soluble	Solid	DI Leach	
890-6087-10	FS 094	Soluble	Solid	DI Leach	
890-6087-11	FS 095	Soluble	Solid	DI Leach	
890-6087-12	FS 101	Soluble	Solid	DI Leach	
890-6087-13	FS 102	Soluble	Solid	DI Leach	
890-6087-14	FS 103	Soluble	Solid	DI Leach	
890-6087-15	FS 104	Soluble	Solid	DI Leach	
MB 880-72131/1-A	Method Blank	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

HPLC/IC (Continued)

Leach Batch: 72131 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-72131/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72131/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6087-1 MS	FS 042	Soluble	Solid	DI Leach	
890-6087-1 MSD	FS 042	Soluble	Solid	DI Leach	
890-6087-11 MS	FS 095	Soluble	Solid	DI Leach	
890-6087-11 MSD	FS 095	Soluble	Solid	DI Leach	

Analysis Batch: 72329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6087-1	FS 042	Soluble	Solid	300.0	72131
890-6087-2	FS 047	Soluble	Solid	300.0	72131
890-6087-3	FS 059	Soluble	Solid	300.0	72131
890-6087-4	FS 061	Soluble	Solid	300.0	72131
890-6087-5	FS 085	Soluble	Solid	300.0	72131
890-6087-6	FS 088	Soluble	Solid	300.0	72131
890-6087-7	FS 089	Soluble	Solid	300.0	72131
890-6087-8	FS 091	Soluble	Solid	300.0	72131
890-6087-9	FS 093	Soluble	Solid	300.0	72131
890-6087-10	FS 094	Soluble	Solid	300.0	72131
890-6087-11	FS 095	Soluble	Solid	300.0	72131
890-6087-12	FS 101	Soluble	Solid	300.0	72131
890-6087-13	FS 102	Soluble	Solid	300.0	72131
890-6087-14	FS 103	Soluble	Solid	300.0	72131
890-6087-15	FS 104	Soluble	Solid	300.0	72131
MB 880-72131/1-A	Method Blank	Soluble	Solid	300.0	72131
LCS 880-72131/2-A	Lab Control Sample	Soluble	Solid	300.0	72131
LCSD 880-72131/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72131
890-6087-1 MS	FS 042	Soluble	Solid	300.0	72131
890-6087-1 MSD	FS 042	Soluble	Solid	300.0	72131
890-6087-11 MS	FS 095	Soluble	Solid	300.0	72131
890-6087-11 MSD	FS 095	Soluble	Solid	300.0	72131

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 042

Lab Sample ID: 890-6087-1

Date Collected: 01/31/24 08:52

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 00:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 00:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 10:20	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 21:16	CH	EET MID

Client Sample ID: FS 047

Lab Sample ID: 890-6087-2

Date Collected: 01/31/24 08:57

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 01:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 01:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 11:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 11:26	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 21:36	CH	EET MID

Client Sample ID: FS 059

Lab Sample ID: 890-6087-3

Date Collected: 01/31/24 09:22

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 01:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 01:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 11:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 11:48	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 21:43	CH	EET MID

Client Sample ID: FS 061

Lab Sample ID: 890-6087-4

Date Collected: 01/31/24 09:29

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 01:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 01:50	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 061

Lab Sample ID: 890-6087-4

Date Collected: 01/31/24 09:29

Matrix: Solid

Date Received: 01/31/24 16:30

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			72772	02/08/24 12:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 12:09	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 21:50	CH	EET MID

Client Sample ID: FS 085

Lab Sample ID: 890-6087-5

Date Collected: 01/31/24 10:51

Matrix: Solid

Date Received: 01/31/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 02:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 02:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 12:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 12:31	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 21:57	CH	EET MID

Client Sample ID: FS 088

Lab Sample ID: 890-6087-6

Date Collected: 01/31/24 11:00

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 02:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 02:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 12:53	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 12:53	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 22:17	CH	EET MID

Client Sample ID: FS 089

Lab Sample ID: 890-6087-7

Date Collected: 01/31/24 11:06

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 02:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 02:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 13:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 13:15	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 089

Lab Sample ID: 890-6087-7

Date Collected: 01/31/24 11:06

Matrix: Solid

Date Received: 01/31/24 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 22:24	CH	EET MID

Client Sample ID: FS 091

Lab Sample ID: 890-6087-8

Date Collected: 01/31/24 11:14

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 03:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 03:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 13:36	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 22:31	CH	EET MID

Client Sample ID: FS 093

Lab Sample ID: 890-6087-9

Date Collected: 01/31/24 11:29

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 03:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 03:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 13:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 13:59	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 22:37	CH	EET MID

Client Sample ID: FS 094

Lab Sample ID: 890-6087-10

Date Collected: 01/31/24 11:30

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 03:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 03:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 14:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 14:20	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 22:44	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 095

Lab Sample ID: 890-6087-11

Date Collected: 01/31/24 11:38

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 05:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 05:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 15:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 15:04	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 22:51	CH	EET MID

Client Sample ID: FS 101

Lab Sample ID: 890-6087-12

Date Collected: 01/31/24 14:32

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 06:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 06:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 15:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 15:26	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 23:11	CH	EET MID

Client Sample ID: FS 102

Lab Sample ID: 890-6087-13

Date Collected: 01/31/24 14:33

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 06:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 06:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 15:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 15:48	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 23:18	CH	EET MID

Client Sample ID: FS 103

Lab Sample ID: 890-6087-14

Date Collected: 01/31/24 14:40

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 06:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 06:43	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
 SDG: 03C2884002

Client Sample ID: FS 103

Lab Sample ID: 890-6087-14

Date Collected: 01/31/24 14:40

Matrix: Solid

Date Received: 01/31/24 16:30

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			72772	02/08/24 16:09	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 16:09	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 23:38	CH	EET MID

Client Sample ID: FS 104

Lab Sample ID: 890-6087-15

Date Collected: 01/31/24 14:41

Matrix: Solid

Date Received: 01/31/24 16:30

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	72820	02/11/24 13:28	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73011	02/14/24 07:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73152	02/14/24 07:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			72772	02/08/24 16:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	72344	02/05/24 10:17	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72614	02/08/24 16:31	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72131	02/02/24 11:26	SMC	EET MID
Soluble	Analysis	300.0		1			72329	02/05/24 23:45	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
SDG: 03C2884002

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	T104704400-23-26	06-30-24

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

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

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

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
SDG: 03C2884002

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6087-1
SDG: 03C2884002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6087-1	FS 042	Solid	01/31/24 08:52	01/31/24 16:30	1.5'
890-6087-2	FS 047	Solid	01/31/24 08:57	01/31/24 16:30	1.5'
890-6087-3	FS 059	Solid	01/31/24 09:22	01/31/24 16:30	1'
890-6087-4	FS 061	Solid	01/31/24 09:29	01/31/24 16:30	1'
890-6087-5	FS 085	Solid	01/31/24 10:51	01/31/24 16:30	1'
890-6087-6	FS 088	Solid	01/31/24 11:00	01/31/24 16:30	1'
890-6087-7	FS 089	Solid	01/31/24 11:06	01/31/24 16:30	1'
890-6087-8	FS 091	Solid	01/31/24 11:14	01/31/24 16:30	1'
890-6087-9	FS 093	Solid	01/31/24 11:29	01/31/24 16:30	1'
890-6087-10	FS 094	Solid	01/31/24 11:30	01/31/24 16:30	1'
890-6087-11	FS 095	Solid	01/31/24 11:38	01/31/24 16:30	1'
890-6087-12	FS 101	Solid	01/31/24 14:32	01/31/24 16:30	1'
890-6087-13	FS 102	Solid	01/31/24 14:33	01/31/24 16:30	1'
890-6087-14	FS 103	Solid	01/31/24 14:40	01/31/24 16:30	1'
890-6087-15	FS 104	Solid	01/31/24 14:41	01/31/24 16:30	1'

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

Chain of Custody

Houston, TX (281) 310-4200, Dallas, TX (214) 972-3900
 Midland, TX (432) 704-5446, San Antonio, TX (210) 809-3334
 El Paso, TX (915) 502-3443, Lubbock, TX (806) 794-1200
 Ft. Worth, TX (817) 392-2555, Carrollton, TX (972) 989-3109

Environment Testing
 Xentico

Work Order No:

6087

Work Order Comments

Program: US/PST PFP Brownfields RRC Superfund

State of Project: Reporting: Level I Level II Level III Level IV

Deliverables: EDC ADMPT Other:

Project Manager: **TACOMA MORRISSEY**

Company Name: **ENSAUR, LLC**

Address: **3133 Ak-Trial, Dallas Hwy.**

City, State, ZIP: **Garland, NM 88200**

Phone: **337-257-8307**

Email: **tmorrissey**

Bill to: (if different) **TACOMA MORRISSEY**

Company Name: **ENSAUR, LLC**

Address: **3133 Ak-Trial, Dallas Hwy.**

City, State, ZIP: **Garland, NM 88200**

Phone: **337-257-8307**

Email: **tmorrissey**

Sample ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont.	Preservative Codes	
								Name: NO	DI Water: H ₂ O
FS042	S	S	1/31/24	0852	1.5'	C	1	Code: Cook	MeOH: Me
FS047	S	S	1/31/24	0857	1.5'	C	1	NCL: HC	HNO ₃ : HN
FS059	S	S	1/31/24	0922	1'	C	1	H ₂ SO ₄ : H ₂	NaOH: Na
FS061	S	S	1/31/24	0924	1'	C	1	H ₂ PO ₄ : HP	NaHSO ₄ : NABIS
FS085	S	S	1/31/24	1051	1'	C	1	Na ₂ S ₂ O ₃ : NASO ₃	Zn Acetate - NaOH: Zn
FS088	S	S	1/31/24	1100	1'	C	1	NaOH: Acetic Acid: SAAC	
FS089	S	S	1/31/24	1106	1'	C	1		
FS091	S	S	1/31/24	1114	1'	C	1		
FS093	S	S	1/31/24	1129	1'	C	1		
FS094	S	S	1/31/24	1130	1'	C	1		

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

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

Notice: Signature of the documents and withdrawal of samples constitutes a valid purchase order from client company to Eurofins Xentico, as affiliates and subcontractors. It is the client's responsibility to ensure that all samples are properly labeled and that the chain of custody is maintained. Eurofins Xentico 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 Xentico. A minimum charge of \$55.00 will be applied to each project and a charge of \$5.00 for each sample submitted to Eurofins Xentico, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature) *[Signature]* Date/Time: 1/31/24 16:28

Received by: (Signature) _____ Date/Time: _____

Shaded Blue (1/2004) Rev. 2008/7

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



Environment Testing
Xenico

Chain of Custody

Houston, TX (281) 240-4300, Dallas, TX (214) 902-0300
Midland, TX (432) 794-5440, San Antonio, TX (210) 509-3354
El Paso, TX (915) 585-3463, Lubbock, TX (806) 794-1206
Ft. Worth, TX (817) 397-7550, Carrollton, TX (972) 398-3199

Work Order No:

www.xenico.com Page 2 of 2

Work Order Comments

Program: UST/PST PIP Brownfields RRC Superfund

State of Project: Level II Level III PST/UST TRRP Level IV

Deliverables: EDD ADA/PT Other:

Project Manager: **Tacoma Morrissey**

Company Name: **ENSOLUM, LLC**

Address: **3102 National Parks Hwy
Latisbad, NM 88220**

City, State ZIP: **337-257-8307**

Project: **Desert Eagle Cinc 178 Cochran Round**

Project Number: **03C288400**

Project Location: **3259729-104, 104MS**

Sampler's Name: **MARIO SANCHEZ**

PD #: **337-257-8307**

Bill to: (if different) **Company Name: ENSOLUM, LLC
Address: 3102 National Parks Hwy
City, State ZIP: 337-257-8307**

Company Name: **ENSOLUM, LLC**

Address: **3102 National Parks Hwy
Latisbad, NM 88220**

City, State ZIP: **337-257-8307**

Project: **Desert Eagle Cinc 178 Cochran Round**

Project Number: **03C288400**

Project Location: **3259729-104, 104MS**

Sampler's Name: **MARIO SANCHEZ**

PD #: **337-257-8307**

SAMPLE RECEIPT		Frequency:		Yes		No		Thermometer ID:		Correction Factor:		Temperature Read (°):		Corrected Temperature:		TAT Starts the Day Received by (the lab / received by 4:30pm)		Preservative Codes	
Sample Received/Intact:	Yes	No	Yes	No	Yes	No	Yes	No	Temperature Read (°):	Corrected Temperature:	Temperature Read (°):	Corrected Temperature:	Yes	No	Yes	No	Yes	No	Name: NO
FS095	Yes	No	Yes	No	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	Yes	No	Yes	No	Yes	No	DI Water H ₂ O
FS101	Yes	No	Yes	No	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	Yes	No	Yes	No	Yes	No	COOL COOL
FS102	Yes	No	Yes	No	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	Yes	No	Yes	No	Yes	No	HCl/HE
FS103	Yes	No	Yes	No	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	Yes	No	Yes	No	Yes	No	H ₂ SO ₄ /H ₂
FS104	Yes	No	Yes	No	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	Yes	No	Yes	No	Yes	No	H ₂ PO ₄ /HP

ANALYSIS REQUEST

Sample Identification

Date Sampled: **11/31/24**

Time Sampled: **11:38**

Matrix: **S**

Depth: **1'**

Grab/Com: **C**

Number of Containers: **1**

Sample Comments: **CHLORIDES**

Circle Method(s) and Metal(s) to be Analyzed: **BRCA 13PPM Texas IT Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn**

Circle Method(s) and Metal(s) to be Analyzed: **TCLP/SPLP 6010 : BRCA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U**

Received by: (Signature) **[Signature]** Date/Time: **11/31/24 16:33**

Relinquished by: (Signature) **[Signature]** Date/Time: **11/31/24 16:33**

Received by: (Signature) **[Signature]** Date/Time: **11/31/24 16:33**

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6087-1

SDG Number: 03C2884002

Login Number: 6087

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6087-1

SDG Number: 03C2884002

Login Number: 6087

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/02/24 11:22 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	

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



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 2/15/2024 2:50:11 PM

JOB DESCRIPTION

Desert Eagle Frac Line (200)
 03C2884002

JOB NUMBER

890-6100-1

Eurofins Carlsbad
 1089 N Canal St.
 Carlsbad NM 88220



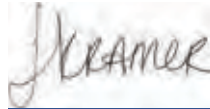
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Authorization



Generated
2/15/2024 2:50:11 PM

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

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Laboratory Job ID: 890-6100-1
SDG: 03C2884002

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	35
QC Sample Results	38
QC Association Summary	49
Lab Chronicle	58
Certification Summary	69
Method Summary	70
Sample Summary	71
Chain of Custody	72
Receipt Checklists	76

Definitions/Glossary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
SDG: 03C2884002

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (200)

Job ID: 890-6100-1

Job ID: 890-6100-1

Eurofins Carlsbad

Job Narrative 890-6100-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/2/2024 10:23 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS049 (890-6100-1), FS113 (890-6100-2), FS114 (890-6100-3), FS115 (890-6100-4), FS116 (890-6100-5), FS118 (890-6100-6), FS105 (890-6100-7), FS106 (890-6100-8), FS107 (890-6100-9), FS108 (890-6100-10), FS109 (890-6100-11), FS110 (890-6100-12), FS111 (890-6100-13), FS112 (890-6100-14), FS007 (890-6100-15), FS016 (890-6100-16), FS018 (890-6100-17), FS019 (890-6100-18), FS021 (890-6100-19), FS022 (890-6100-20), FS067 (890-6100-21), FS069 (890-6100-22), FS071 (890-6100-23), FS073 (890-6100-24), FS079 (890-6100-25), FS80 (890-6100-26), FS081 (890-6100-27), FS082 (890-6100-28), FS083 (890-6100-29), FS123 (890-6100-30), FS124 (890-6100-31), FS125 (890-6100-32), FS126 (890-6100-33) and FS127 (890-6100-34).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS114 (890-6100-3), FS118 (890-6100-6), FS105 (890-6100-7), FS107 (890-6100-9) and FS109 (890-6100-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-72999 recovered above the upper control limit for Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-72999/51).

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-72999 recovered above the upper control limit for Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-72999/33).

Method 8021B: The laboratory control sample (LCS) for preparation batch 880-72954 and analytical batch 880-72999 recovered outside control limits for the following analytes: Ethylbenzene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-72955 and analytical batch 880-73077 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The following samples required a dilution due to the nature of the sample matrix: FS081 (890-6100-27) and FS126 (890-6100-33). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73139 recovered under the lower control limit for Benzene, Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; 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.

GC Semi VOA

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project: Desert Eagle Frac Line (200)

Job ID: 890-6100-1

Job ID: 890-6100-1 (Continued)

Eurofins Carlsbad

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72498 and analytical batch 880-72812 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS049 (890-6100-1), FS113 (890-6100-2), (890-6100-A-1-E MS) and (890-6100-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-72498 and analytical batch 880-72812 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72499 and analytical batch 880-72796 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS067 (890-6100-21), FS071 (890-6100-23), FS073 (890-6100-24) and (890-6100-A-21-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72499 and analytical batch 880-72796 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72361 and analytical batch 880-72505 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72453 and analytical batch 880-72534 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-72359 and analytical batch 880-72544 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS049

Lab Sample ID: 890-6100-1

Date Collected: 02/01/24 08:50

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 22:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 22:20	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		02/12/24 16:21	02/13/24 22:20	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/12/24 16:21	02/13/24 22:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 22:20	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/12/24 16:21	02/13/24 22:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	02/12/24 16:21	02/13/24 22:20	1
1,4-Difluorobenzene (Surr)	82		70 - 130	02/12/24 16:21	02/13/24 22:20	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/13/24 22:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/11/24 20:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/06/24 12:33	02/11/24 20:26	1
Diesel Range Organics (Over C10-C28)	<49.8	U F1	49.8	mg/Kg		02/06/24 12:33	02/11/24 20:26	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/06/24 12:33	02/11/24 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130	02/06/24 12:33	02/11/24 20:26	1
o-Terphenyl	56	S1-	70 - 130	02/06/24 12:33	02/11/24 20:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	606	F1	5.04	mg/Kg			02/07/24 11:55	1

Client Sample ID: FS113

Lab Sample ID: 890-6100-2

Date Collected: 02/01/24 09:12

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/13/24 22:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/13/24 22:40	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		02/12/24 16:21	02/13/24 22:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/13/24 22:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/13/24 22:40	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/13/24 22:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	02/12/24 16:21	02/13/24 22:40	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS113

Lab Sample ID: 890-6100-2

Date Collected: 02/01/24 09:12

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	81		70 - 130	02/12/24 16:21	02/13/24 22:40	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/13/24 22:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/11/24 21:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/06/24 12:33	02/11/24 21:36	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/06/24 12:33	02/11/24 21:36	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/06/24 12:33	02/11/24 21:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130	02/06/24 12:33	02/11/24 21:36	1
o-Terphenyl	63	S1-	70 - 130	02/06/24 12:33	02/11/24 21:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	517		5.02	mg/Kg			02/07/24 12:15	1

Client Sample ID: FS114

Lab Sample ID: 890-6100-3

Date Collected: 02/01/24 09:13

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/13/24 23:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/13/24 23:01	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		02/12/24 16:21	02/13/24 23:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/13/24 23:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/13/24 23:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/13/24 23:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	02/12/24 16:21	02/13/24 23:01	1
1,4-Difluorobenzene (Surr)	58	S1-	70 - 130	02/12/24 16:21	02/13/24 23:01	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/13/24 23:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/11/24 21:58	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS114

Lab Sample ID: 890-6100-3

Date Collected: 02/01/24 09:13

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/06/24 12:33	02/11/24 21:58	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/06/24 12:33	02/11/24 21:58	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/06/24 12:33	02/11/24 21:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			02/06/24 12:33	02/11/24 21:58	1
o-Terphenyl	86		70 - 130			02/06/24 12:33	02/11/24 21:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	213		5.01	mg/Kg			02/07/24 12:22	1

Client Sample ID: FS115

Lab Sample ID: 890-6100-4

Date Collected: 02/01/24 09:15

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 23:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 23:21	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		02/12/24 16:21	02/13/24 23:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/12/24 16:21	02/13/24 23:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 23:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/12/24 16:21	02/13/24 23:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130			02/12/24 16:21	02/13/24 23:21	1
1,4-Difluorobenzene (Surr)	78		70 - 130			02/12/24 16:21	02/13/24 23:21	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/13/24 23:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			02/11/24 22:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/11/24 22:21	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/11/24 22:21	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/11/24 22:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130			02/06/24 12:33	02/11/24 22:21	1
o-Terphenyl	100		70 - 130			02/06/24 12:33	02/11/24 22:21	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS115

Lab Sample ID: 890-6100-4

Date Collected: 02/01/24 09:15

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	104		5.03	mg/Kg			02/07/24 12:29	1

Client Sample ID: FS116

Lab Sample ID: 890-6100-5

Date Collected: 02/01/24 09:15

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/13/24 23:42	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/13/24 23:42	1
Ethylbenzene	<0.00201	U *+	0.00201	mg/Kg		02/12/24 16:21	02/13/24 23:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/12/24 16:21	02/13/24 23:42	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/13/24 23:42	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/12/24 16:21	02/13/24 23:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130			02/12/24 16:21	02/13/24 23:42	1
1,4-Difluorobenzene (Surr)	75		70 - 130			02/12/24 16:21	02/13/24 23:42	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/13/24 23:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/11/24 22:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/11/24 22:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/11/24 22:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/11/24 22:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			02/06/24 12:33	02/11/24 22:43	1
o-Terphenyl	79		70 - 130			02/06/24 12:33	02/11/24 22:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	328		4.99	mg/Kg			02/07/24 12:36	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS118

Lab Sample ID: 890-6100-6

Date Collected: 02/01/24 09:18

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 00:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 00:02	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		02/12/24 16:21	02/14/24 00:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 00:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 00:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 00:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	02/12/24 16:21	02/14/24 00:02	1
1,4-Difluorobenzene (Surr)	61	S1-	70 - 130	02/12/24 16:21	02/14/24 00:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 00:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			02/11/24 23:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/11/24 23:05	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/11/24 23:05	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/11/24 23:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	02/06/24 12:33	02/11/24 23:05	1
o-Terphenyl	80		70 - 130	02/06/24 12:33	02/11/24 23:05	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	61.9		4.96	mg/Kg			02/07/24 12:56	1

Client Sample ID: FS105

Lab Sample ID: 890-6100-7

Date Collected: 02/01/24 09:02

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 00:22	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 00:22	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		02/12/24 16:21	02/14/24 00:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 00:22	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 00:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 00:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/12/24 16:21	02/14/24 00:22	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS105

Lab Sample ID: 890-6100-7

Date Collected: 02/01/24 09:02

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	66	S1-	70 - 130	02/12/24 16:21	02/14/24 00:22	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 00:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/11/24 23:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/11/24 23:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/11/24 23:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/11/24 23:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	02/06/24 12:33	02/11/24 23:26	1
o-Terphenyl	89		70 - 130	02/06/24 12:33	02/11/24 23:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	106		4.96	mg/Kg			02/07/24 13:03	1

Client Sample ID: FS106

Lab Sample ID: 890-6100-8

Date Collected: 02/01/24 09:03

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 00:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 00:43	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		02/12/24 16:21	02/14/24 00:43	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/12/24 16:21	02/14/24 00:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 00:43	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/12/24 16:21	02/14/24 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	02/12/24 16:21	02/14/24 00:43	1
1,4-Difluorobenzene (Surr)	82		70 - 130	02/12/24 16:21	02/14/24 00:43	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/14/24 00:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/11/24 23:48	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS106

Lab Sample ID: 890-6100-8

Date Collected: 02/01/24 09:03

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/06/24 12:33	02/11/24 23:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/06/24 12:33	02/11/24 23:48	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/06/24 12:33	02/11/24 23:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			02/06/24 12:33	02/11/24 23:48	1
o-Terphenyl	87		70 - 130			02/06/24 12:33	02/11/24 23:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		4.98	mg/Kg			02/07/24 13:10	1

Client Sample ID: FS107

Lab Sample ID: 890-6100-9

Date Collected: 02/01/24 09:04

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 01:03	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 01:03	1
Ethylbenzene	<0.00201	U **	0.00201	mg/Kg		02/12/24 16:21	02/14/24 01:03	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/12/24 16:21	02/14/24 01:03	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 01:03	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/12/24 16:21	02/14/24 01:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130			02/12/24 16:21	02/14/24 01:03	1
1,4-Difluorobenzene (Surr)	61	S1-	70 - 130			02/12/24 16:21	02/14/24 01:03	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/14/24 01:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/12/24 00:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		02/06/24 12:33	02/12/24 00:10	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		02/06/24 12:33	02/12/24 00:10	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		02/06/24 12:33	02/12/24 00:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/06/24 12:33	02/12/24 00:10	1
o-Terphenyl	85		70 - 130			02/06/24 12:33	02/12/24 00:10	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS107

Lab Sample ID: 890-6100-9

Date Collected: 02/01/24 09:04

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	162		5.04	mg/Kg			02/07/24 13:16	1

Client Sample ID: FS108

Lab Sample ID: 890-6100-10

Date Collected: 02/01/24 09:05

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 01:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 01:24	1
Ethylbenzene	<0.00200	U *	0.00200	mg/Kg		02/12/24 16:21	02/14/24 01:24	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/12/24 16:21	02/14/24 01:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 01:24	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/12/24 16:21	02/14/24 01:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130			02/12/24 16:21	02/14/24 01:24	1
1,4-Difluorobenzene (Surr)	79		70 - 130			02/12/24 16:21	02/14/24 01:24	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/14/24 01:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/12/24 00:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/06/24 12:33	02/12/24 00:31	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/06/24 12:33	02/12/24 00:31	1
Oll Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/06/24 12:33	02/12/24 00:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130			02/06/24 12:33	02/12/24 00:31	1
o-Terphenyl	99		70 - 130			02/06/24 12:33	02/12/24 00:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.3		5.02	mg/Kg			02/07/24 13:23	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS109

Lab Sample ID: 890-6100-11

Date Collected: 02/01/24 09:06

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 02:46	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 02:46	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		02/12/24 16:21	02/14/24 02:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 02:46	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 02:46	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 02:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/12/24 16:21	02/14/24 02:46	1
1,4-Difluorobenzene (Surr)	64	S1-	70 - 130	02/12/24 16:21	02/14/24 02:46	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 02:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/12/24 01:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/06/24 12:33	02/12/24 01:15	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/06/24 12:33	02/12/24 01:15	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/06/24 12:33	02/12/24 01:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	02/06/24 12:33	02/12/24 01:15	1
o-Terphenyl	97		70 - 130	02/06/24 12:33	02/12/24 01:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	163		5.05	mg/Kg			02/07/24 13:30	1

Client Sample ID: FS110

Lab Sample ID: 890-6100-12

Date Collected: 02/01/24 09:07

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 03:07	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 03:07	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		02/12/24 16:21	02/14/24 03:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 03:07	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 03:07	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 03:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/12/24 16:21	02/14/24 03:07	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS110

Lab Sample ID: 890-6100-12

Date Collected: 02/01/24 09:07

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	80		70 - 130	02/12/24 16:21	02/14/24 03:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 03:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/12/24 01:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/06/24 12:33	02/12/24 01:37	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/06/24 12:33	02/12/24 01:37	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/06/24 12:33	02/12/24 01:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	02/06/24 12:33	02/12/24 01:37	1
o-Terphenyl	82		70 - 130	02/06/24 12:33	02/12/24 01:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	114		5.04	mg/Kg			02/07/24 13:50	1

Client Sample ID: FS111

Lab Sample ID: 890-6100-13

Date Collected: 02/01/24 09:08

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 03:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 03:27	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		02/12/24 16:21	02/14/24 03:27	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/12/24 16:21	02/14/24 03:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 03:27	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/12/24 16:21	02/14/24 03:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/12/24 16:21	02/14/24 03:27	1
1,4-Difluorobenzene (Surr)	73		70 - 130	02/12/24 16:21	02/14/24 03:27	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/14/24 03:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/12/24 01:58	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS111

Lab Sample ID: 890-6100-13

Date Collected: 02/01/24 09:08

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 01:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 01:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 01:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130			02/06/24 12:33	02/12/24 01:58	1
o-Terphenyl	101		70 - 130			02/06/24 12:33	02/12/24 01:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	306		5.00	mg/Kg			02/07/24 13:57	1

Client Sample ID: FS112

Lab Sample ID: 890-6100-14

Date Collected: 02/01/24 09:10

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 03:47	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 03:47	1
Ethylbenzene	<0.00201	U **	0.00201	mg/Kg		02/12/24 16:21	02/14/24 03:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/12/24 16:21	02/14/24 03:47	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 03:47	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/12/24 16:21	02/14/24 03:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130			02/12/24 16:21	02/14/24 03:47	1
1,4-Difluorobenzene (Surr)	77		70 - 130			02/12/24 16:21	02/14/24 03:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/14/24 03:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/12/24 02:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 02:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 02:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 02:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			02/06/24 12:33	02/12/24 02:20	1
o-Terphenyl	90		70 - 130			02/06/24 12:33	02/12/24 02:20	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS112

Lab Sample ID: 890-6100-14

Date Collected: 02/01/24 09:10

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 1'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.4		5.00	mg/Kg			02/07/24 14:17	1

Client Sample ID: FS007

Lab Sample ID: 890-6100-15

Date Collected: 02/01/24 11:52

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 04:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 04:08	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		02/12/24 16:21	02/14/24 04:08	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/12/24 16:21	02/14/24 04:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 04:08	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/12/24 16:21	02/14/24 04:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130			02/12/24 16:21	02/14/24 04:08	1
1,4-Difluorobenzene (Surr)	80		70 - 130			02/12/24 16:21	02/14/24 04:08	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/14/24 04:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/12/24 02:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/06/24 12:33	02/12/24 02:42	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/06/24 12:33	02/12/24 02:42	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/06/24 12:33	02/12/24 02:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			02/06/24 12:33	02/12/24 02:42	1
o-Terphenyl	85		70 - 130			02/06/24 12:33	02/12/24 02:42	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	76.4		5.04	mg/Kg			02/07/24 14:24	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS016

Lab Sample ID: 890-6100-16

Date Collected: 02/01/24 11:55

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 04:28	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 04:28	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		02/12/24 16:21	02/14/24 04:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 04:28	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 04:28	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	02/12/24 16:21	02/14/24 04:28	1
1,4-Difluorobenzene (Surr)	79		70 - 130	02/12/24 16:21	02/14/24 04:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 04:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/12/24 03:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/06/24 12:33	02/12/24 03:03	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/06/24 12:33	02/12/24 03:03	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/06/24 12:33	02/12/24 03:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	02/06/24 12:33	02/12/24 03:03	1
o-Terphenyl	89		70 - 130	02/06/24 12:33	02/12/24 03:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95.7		5.02	mg/Kg			02/07/24 14:31	1

Client Sample ID: FS018

Lab Sample ID: 890-6100-17

Date Collected: 02/01/24 11:56

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 04:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 04:49	1
Ethylbenzene	<0.00199	U **	0.00199	mg/Kg		02/12/24 16:21	02/14/24 04:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 04:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:21	02/14/24 04:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:21	02/14/24 04:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130	02/12/24 16:21	02/14/24 04:49	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS018

Lab Sample ID: 890-6100-17

Date Collected: 02/01/24 11:56

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	78		70 - 130	02/12/24 16:21	02/14/24 04:49	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 04:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/12/24 03:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/06/24 12:33	02/12/24 03:25	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/06/24 12:33	02/12/24 03:25	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/06/24 12:33	02/12/24 03:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	02/06/24 12:33	02/12/24 03:25	1
o-Terphenyl	78		70 - 130	02/06/24 12:33	02/12/24 03:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98.9		4.97	mg/Kg			02/07/24 14:38	1

Client Sample ID: FS019

Lab Sample ID: 890-6100-18

Date Collected: 02/01/24 11:58

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 05:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 05:09	1
Ethylbenzene	<0.00200	U **	0.00200	mg/Kg		02/12/24 16:21	02/14/24 05:09	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/12/24 16:21	02/14/24 05:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 05:09	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/12/24 16:21	02/14/24 05:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130	02/12/24 16:21	02/14/24 05:09	1
1,4-Difluorobenzene (Surr)	79		70 - 130	02/12/24 16:21	02/14/24 05:09	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/14/24 05:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/12/24 03:47	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS019

Lab Sample ID: 890-6100-18

Date Collected: 02/01/24 11:58

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 03:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 03:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/06/24 12:33	02/12/24 03:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	02/06/24 12:33	02/12/24 03:47	1
o-Terphenyl	105		70 - 130	02/06/24 12:33	02/12/24 03:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.6		4.97	mg/Kg			02/07/24 10:47	1

Client Sample ID: FS021

Lab Sample ID: 890-6100-19

Date Collected: 02/01/24 11:59

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 05:30	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 05:30	1
Ethylbenzene	<0.00201	U **	0.00201	mg/Kg		02/12/24 16:21	02/14/24 05:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/12/24 16:21	02/14/24 05:30	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:21	02/14/24 05:30	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/12/24 16:21	02/14/24 05:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/12/24 16:21	02/14/24 05:30	1
1,4-Difluorobenzene (Surr)	77		70 - 130	02/12/24 16:21	02/14/24 05:30	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/14/24 05:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/12/24 04:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/12/24 04:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/12/24 04:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/12/24 04:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	02/06/24 12:33	02/12/24 04:09	1
o-Terphenyl	92		70 - 130	02/06/24 12:33	02/12/24 04:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS021

Lab Sample ID: 890-6100-19

Date Collected: 02/01/24 11:59

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		4.98	mg/Kg			02/07/24 10:54	1

Client Sample ID: FS022

Lab Sample ID: 890-6100-20

Date Collected: 02/01/24 12:00

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 05:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 05:50	1
Ethylbenzene	<0.00200	U *	0.00200	mg/Kg		02/12/24 16:21	02/14/24 05:50	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/12/24 16:21	02/14/24 05:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/14/24 05:50	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/12/24 16:21	02/14/24 05:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130			02/12/24 16:21	02/14/24 05:50	1
1,4-Difluorobenzene (Surr)	78		70 - 130			02/12/24 16:21	02/14/24 05:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/14/24 05:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			02/12/24 04:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/12/24 04:30	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/12/24 04:30	1
Oll Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/06/24 12:33	02/12/24 04:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			02/06/24 12:33	02/12/24 04:30	1
o-Terphenyl	78		70 - 130			02/06/24 12:33	02/12/24 04:30	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	204		5.04	mg/Kg			02/07/24 11:01	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS067

Lab Sample ID: 890-6100-21

Date Collected: 02/01/24 12:03

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200	mg/Kg		02/12/24 16:23	02/13/24 19:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 19:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 19:36	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/12/24 16:23	02/13/24 19:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 19:36	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/12/24 16:23	02/13/24 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	02/12/24 16:23	02/13/24 19:36	1
1,4-Difluorobenzene (Surr)	93		70 - 130	02/12/24 16:23	02/13/24 19:36	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/13/24 19:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/10/24 19:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/06/24 12:37	02/10/24 19:55	1
Diesel Range Organics (Over C10-C28)	<49.6	U F2 F1	49.6	mg/Kg		02/06/24 12:37	02/10/24 19:55	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/06/24 12:37	02/10/24 19:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	40	S1-	70 - 130	02/06/24 12:37	02/10/24 19:55	1
o-Terphenyl	35	S1-	70 - 130	02/06/24 12:37	02/10/24 19:55	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	89.6		4.99	mg/Kg			02/07/24 00:49	1

Client Sample ID: FS069

Lab Sample ID: 890-6100-22

Date Collected: 02/01/24 12:04

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 19:56	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 19:56	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 19:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/13/24 19:56	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 19:56	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/13/24 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	02/12/24 16:23	02/13/24 19:56	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS069

Lab Sample ID: 890-6100-22

Date Collected: 02/01/24 12:04

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93		70 - 130	02/12/24 16:23	02/13/24 19:56	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/13/24 19:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/10/24 21:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/10/24 21:02	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/10/24 21:02	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/10/24 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	02/06/24 12:37	02/10/24 21:02	1
o-Terphenyl	84		70 - 130	02/06/24 12:37	02/10/24 21:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		4.97	mg/Kg			02/07/24 01:09	1

Client Sample ID: FS071

Lab Sample ID: 890-6100-23

Date Collected: 02/01/24 12:05

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 20:17	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 20:17	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 20:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/13/24 20:17	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 20:17	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/13/24 20:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	02/12/24 16:23	02/13/24 20:17	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/12/24 16:23	02/13/24 20:17	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/13/24 20:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/10/24 21:24	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS071

Lab Sample ID: 890-6100-23

Date Collected: 02/01/24 12:05

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/06/24 12:37	02/10/24 21:24	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/06/24 12:37	02/10/24 21:24	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/06/24 12:37	02/10/24 21:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	36	S1-	70 - 130			02/06/24 12:37	02/10/24 21:24	1
o-Terphenyl	30	S1-	70 - 130			02/06/24 12:37	02/10/24 21:24	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	239		5.02	mg/Kg			02/07/24 01:16	1

Client Sample ID: FS073

Lab Sample ID: 890-6100-24

Date Collected: 02/01/24 12:06

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 20:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 20:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 20:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/12/24 16:23	02/13/24 20:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 20:37	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/12/24 16:23	02/13/24 20:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/12/24 16:23	02/13/24 20:37	1
1,4-Difluorobenzene (Surr)	95		70 - 130			02/12/24 16:23	02/13/24 20:37	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/13/24 20:37	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/10/24 21:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/06/24 12:37	02/10/24 21:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/06/24 12:37	02/10/24 21:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/06/24 12:37	02/10/24 21:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	46	S1-	70 - 130			02/06/24 12:37	02/10/24 21:47	1
o-Terphenyl	39	S1-	70 - 130			02/06/24 12:37	02/10/24 21:47	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS073

Lab Sample ID: 890-6100-24

Date Collected: 02/01/24 12:06

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.8		5.01	mg/Kg			02/07/24 01:22	1

Client Sample ID: FS079

Lab Sample ID: 890-6100-25

Date Collected: 02/01/24 13:31

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:23	02/13/24 20:58	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:23	02/13/24 20:58	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:23	02/13/24 20:58	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/12/24 16:23	02/13/24 20:58	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:23	02/13/24 20:58	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/12/24 16:23	02/13/24 20:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/12/24 16:23	02/13/24 20:58	1
1,4-Difluorobenzene (Surr)	99		70 - 130			02/12/24 16:23	02/13/24 20:58	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/13/24 20:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/10/24 22:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/06/24 12:37	02/10/24 22:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/06/24 12:37	02/10/24 22:09	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/06/24 12:37	02/10/24 22:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			02/06/24 12:37	02/10/24 22:09	1
o-Terphenyl	86		70 - 130			02/06/24 12:37	02/10/24 22:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	297		5.00	mg/Kg			02/07/24 01:29	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS80

Lab Sample ID: 890-6100-26

Date Collected: 02/01/24 12:32

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 21:18	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 21:18	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 21:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/13/24 21:18	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 21:18	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/13/24 21:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	02/12/24 16:23	02/13/24 21:18	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/12/24 16:23	02/13/24 21:18	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/13/24 21:18	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/10/24 22:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/06/24 12:37	02/10/24 22:31	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/06/24 12:37	02/10/24 22:31	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/06/24 12:37	02/10/24 22:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	02/06/24 12:37	02/10/24 22:31	1
o-Terphenyl	105		70 - 130	02/06/24 12:37	02/10/24 22:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.9		5.03	mg/Kg			02/07/24 01:50	1

Client Sample ID: FS081

Lab Sample ID: 890-6100-27

Date Collected: 02/01/24 12:33

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 21:39	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 21:39	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/13/24 21:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/13/24 21:39	1
o-Xylene	0.00461		0.00199	mg/Kg		02/12/24 16:23	02/13/24 21:39	1
Xylenes, Total	0.00461		0.00398	mg/Kg		02/12/24 16:23	02/13/24 21:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	0.006	S1-	70 - 130	02/12/24 16:23	02/13/24 21:39	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS081

Lab Sample ID: 890-6100-27

Date Collected: 02/01/24 12:33

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	117		70 - 130	02/12/24 16:23	02/13/24 21:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00461		0.00398	mg/Kg			02/13/24 21:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/10/24 22:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/06/24 12:37	02/10/24 22:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/06/24 12:37	02/10/24 22:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/06/24 12:37	02/10/24 22:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	02/06/24 12:37	02/10/24 22:52	1
o-Terphenyl	107		70 - 130	02/06/24 12:37	02/10/24 22:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	182		4.98	mg/Kg			02/07/24 01:56	1

Client Sample ID: FS082

Lab Sample ID: 890-6100-28

Date Collected: 02/01/24 12:34

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 21:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 21:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 21:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/12/24 16:23	02/13/24 21:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 21:59	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/12/24 16:23	02/13/24 21:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	02/12/24 16:23	02/13/24 21:59	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/12/24 16:23	02/13/24 21:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/13/24 21:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/10/24 23:13	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS082

Lab Sample ID: 890-6100-28

Date Collected: 02/01/24 12:34

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/06/24 12:37	02/10/24 23:13	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/06/24 12:37	02/10/24 23:13	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/06/24 12:37	02/10/24 23:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			02/06/24 12:37	02/10/24 23:13	1
o-Terphenyl	108		70 - 130			02/06/24 12:37	02/10/24 23:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		5.01	mg/Kg			02/07/24 02:03	1

Client Sample ID: FS083

Lab Sample ID: 890-6100-29

Date Collected: 02/01/24 12:34

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:23	02/13/24 22:20	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:23	02/13/24 22:20	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:23	02/13/24 22:20	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/12/24 16:23	02/13/24 22:20	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/12/24 16:23	02/13/24 22:20	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/12/24 16:23	02/13/24 22:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130			02/12/24 16:23	02/13/24 22:20	1
1,4-Difluorobenzene (Surr)	94		70 - 130			02/12/24 16:23	02/13/24 22:20	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/13/24 22:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/10/24 23:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/06/24 12:37	02/10/24 23:35	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/06/24 12:37	02/10/24 23:35	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/06/24 12:37	02/10/24 23:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			02/06/24 12:37	02/10/24 23:35	1
o-Terphenyl	113		70 - 130			02/06/24 12:37	02/10/24 23:35	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS083

Lab Sample ID: 890-6100-29

Date Collected: 02/01/24 12:34

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	163		5.04	mg/Kg			02/07/24 02:10	1

Client Sample ID: FS123

Lab Sample ID: 890-6100-30

Date Collected: 02/01/24 14:34

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 22:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 22:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 22:40	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/12/24 16:23	02/13/24 22:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 22:40	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/12/24 16:23	02/13/24 22:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			02/12/24 16:23	02/13/24 22:40	1
1,4-Difluorobenzene (Surr)	102		70 - 130			02/12/24 16:23	02/13/24 22:40	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/13/24 22:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			02/10/24 23:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		02/06/24 12:37	02/10/24 23:57	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		02/06/24 12:37	02/10/24 23:57	1
Oll Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		02/06/24 12:37	02/10/24 23:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/06/24 12:37	02/10/24 23:57	1
o-Terphenyl	102		70 - 130			02/06/24 12:37	02/10/24 23:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	72.7		5.03	mg/Kg			02/07/24 02:17	1

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS124

Lab Sample ID: 890-6100-31

Date Collected: 02/01/24 14:35

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/14/24 00:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/14/24 00:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/14/24 00:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/14/24 00:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/14/24 00:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/14/24 00:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	02/12/24 16:23	02/14/24 00:02	1
1,4-Difluorobenzene (Surr)	93		70 - 130	02/12/24 16:23	02/14/24 00:02	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 00:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/11/24 00:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/06/24 12:37	02/11/24 00:40	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/06/24 12:37	02/11/24 00:40	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/06/24 12:37	02/11/24 00:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	02/06/24 12:37	02/11/24 00:40	1
o-Terphenyl	98		70 - 130	02/06/24 12:37	02/11/24 00:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	982	F1	4.98	mg/Kg			02/07/24 02:24	1

Client Sample ID: FS125

Lab Sample ID: 890-6100-32

Date Collected: 02/01/24 14:36

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/14/24 00:23	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/14/24 00:23	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/14/24 00:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/14/24 00:23	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/12/24 16:23	02/14/24 00:23	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/12/24 16:23	02/14/24 00:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	02/12/24 16:23	02/14/24 00:23	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS125

Lab Sample ID: 890-6100-32

Date Collected: 02/01/24 14:36

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	02/12/24 16:23	02/14/24 00:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/14/24 00:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/11/24 01:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/11/24 01:01	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/11/24 01:01	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/11/24 01:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	02/06/24 12:37	02/11/24 01:01	1
o-Terphenyl	120		70 - 130	02/06/24 12:37	02/11/24 01:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	307		5.03	mg/Kg			02/07/24 02:44	1

Client Sample ID: FS126

Lab Sample ID: 890-6100-33

Date Collected: 02/01/24 14:37

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/14/24 00:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/14/24 00:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/14/24 00:43	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/12/24 16:23	02/14/24 00:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/14/24 00:43	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/12/24 16:23	02/14/24 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	02/12/24 16:23	02/14/24 00:43	1
1,4-Difluorobenzene (Surr)	0.3	S1-	70 - 130	02/12/24 16:23	02/14/24 00:43	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/14/24 00:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/11/24 01:22	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS126

Lab Sample ID: 890-6100-33

Date Collected: 02/01/24 14:37

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/11/24 01:22	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/11/24 01:22	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/06/24 12:37	02/11/24 01:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			02/06/24 12:37	02/11/24 01:22	1
o-Terphenyl	117		70 - 130			02/06/24 12:37	02/11/24 01:22	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	192		4.96	mg/Kg			02/07/24 02:51	1

Client Sample ID: FS127

Lab Sample ID: 890-6100-34

Date Collected: 02/01/24 14:38

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/14/24 14:00	02/14/24 15:38	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/14/24 14:00	02/14/24 15:38	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/14/24 14:00	02/14/24 15:38	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/14/24 14:00	02/14/24 15:38	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/14/24 14:00	02/14/24 15:38	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/14/24 14:00	02/14/24 15:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			02/14/24 14:00	02/14/24 15:38	1
1,4-Difluorobenzene (Surr)	101		70 - 130			02/14/24 14:00	02/14/24 15:38	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/14/24 15:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/11/24 01:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		02/06/24 12:37	02/11/24 01:43	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		02/06/24 12:37	02/11/24 01:43	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		02/06/24 12:37	02/11/24 01:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			02/06/24 12:37	02/11/24 01:43	1
o-Terphenyl	114		70 - 130			02/06/24 12:37	02/11/24 01:43	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
SDG: 03C2884002

Client Sample ID: FS127

Lab Sample ID: 890-6100-34

Date Collected: 02/01/24 14:38

Matrix: Solid

Date Received: 02/02/24 10:23

Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	970		4.95	mg/Kg			02/07/24 03:11	1

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

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-39266-A-7-D MS	Matrix Spike	110	93
880-39266-A-7-E MSD	Matrix Spike Duplicate	115	92
890-6100-1	FS049	81	82
890-6100-1 MS	FS049	125	105
890-6100-1 MSD	FS049	122	83
890-6100-2	FS113	83	81
890-6100-3	FS114	90	58 S1-
890-6100-4	FS115	85	78
890-6100-5	FS116	88	75
890-6100-6	FS118	93	61 S1-
890-6100-7	FS105	85	66 S1-
890-6100-8	FS106	84	82
890-6100-9	FS107	91	61 S1-
890-6100-10	FS108	84	79
890-6100-11	FS109	88	64 S1-
890-6100-12	FS110	85	80
890-6100-13	FS111	88	73
890-6100-14	FS112	85	77
890-6100-15	FS007	85	80
890-6100-16	FS016	88	79
890-6100-17	FS018	83	78
890-6100-18	FS019	84	79
890-6100-19	FS021	85	77
890-6100-20	FS022	86	78
890-6100-21	FS067	98	93
890-6100-21 MS	FS067	113	99
890-6100-21 MSD	FS067	111	95
890-6100-22	FS069	96	93
890-6100-23	FS071	99	95
890-6100-24	FS073	104	95
890-6100-25	FS079	104	99
890-6100-26	FS80	101	95
890-6100-27	FS081	0.006 S1-	117
890-6100-28	FS082	101	95
890-6100-29	FS083	99	94
890-6100-30	FS123	113	102
890-6100-31	FS124	128	93
890-6100-32	FS125	103	95
890-6100-33	FS126	97	0.3 S1-
890-6100-34	FS127	116	101
LCS 880-72954/1-A	Lab Control Sample	110	88
LCS 880-72955/1-A	Lab Control Sample	109	103
LCS 880-73089/1-A	Lab Control Sample	111	84
LCSD 880-72954/2-A	Lab Control Sample Dup	111	101
LCSD 880-72955/2-A	Lab Control Sample Dup	101	97
LCSD 880-73089/2-A	Lab Control Sample Dup	110	94
MB 880-72954/5-A	Method Blank	75	79
MB 880-72955/5-A	Method Blank	79	98
MB 880-73002/5-A	Method Blank	75	81

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
MB 880-73089/5-A	Method Blank	84	96
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-6100-1	FS049	67 S1-	56 S1-
890-6100-1 MS	FS049	55 S1-	39 S1-
890-6100-1 MSD	FS049	66 S1-	47 S1-
890-6100-2	FS113	78	63 S1-
890-6100-3	FS114	102	86
890-6100-4	FS115	116	100
890-6100-5	FS116	95	79
890-6100-6	FS118	96	80
890-6100-7	FS105	109	89
890-6100-8	FS106	104	87
890-6100-9	FS107	98	85
890-6100-10	FS108	117	99
890-6100-11	FS109	118	97
890-6100-12	FS110	97	82
890-6100-13	FS111	121	101
890-6100-14	FS112	108	90
890-6100-15	FS007	102	85
890-6100-16	FS016	105	89
890-6100-17	FS018	94	78
890-6100-18	FS019	128	105
890-6100-19	FS021	111	92
890-6100-20	FS022	95	78
890-6100-21	FS067	40 S1-	35 S1-
890-6100-21 MS	FS067	70	62 S1-
890-6100-21 MSD	FS067	97	87
890-6100-22	FS069	84	84
890-6100-23	FS071	36 S1-	30 S1-
890-6100-24	FS073	46 S1-	39 S1-
890-6100-25	FS079	85	86
890-6100-26	FS80	101	105
890-6100-27	FS081	103	107
890-6100-28	FS082	103	108
890-6100-29	FS083	110	113
890-6100-30	FS123	98	102
890-6100-31	FS124	101	98
890-6100-32	FS125	115	120
890-6100-33	FS126	114	117
890-6100-34	FS127	111	114
LCS 880-72498/2-A	Lab Control Sample	105	102

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
SDG: 03C2884002

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)
LCS 880-72499/2-A	Lab Control Sample	103	101
LCS 880-72498/3-A	Lab Control Sample Dup	100	101
LCS 880-72499/3-A	Lab Control Sample Dup	100	97
MB 880-72498/1-A	Method Blank	183 S1+	159 S1+
MB 880-72499/1-A	Method Blank	168 S1+	181 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72954/5-A
 Matrix: Solid
 Analysis Batch: 72999

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72954

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 21:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 21:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 21:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/12/24 16:21	02/13/24 21:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:21	02/13/24 21:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/12/24 16:21	02/13/24 21:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	02/12/24 16:21	02/13/24 21:58	1
1,4-Difluorobenzene (Surr)	79		70 - 130	02/12/24 16:21	02/13/24 21:58	1

Lab Sample ID: LCS 880-72954/1-A
 Matrix: Solid
 Analysis Batch: 72999

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09253		mg/Kg		93	70 - 130
Toluene	0.100	0.1113		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1324	*+	mg/Kg		132	70 - 130
m-Xylene & p-Xylene	0.200	0.2389		mg/Kg		119	70 - 130
o-Xylene	0.100	0.1173		mg/Kg		117	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: LCSD 880-72954/2-A
 Matrix: Solid
 Analysis Batch: 72999

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72954

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1005		mg/Kg		100	70 - 130	8	35
Toluene	0.100	0.1082		mg/Kg		108	70 - 130	3	35
Ethylbenzene	0.100	0.1216		mg/Kg		122	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2362		mg/Kg		118	70 - 130	1	35
o-Xylene	0.100	0.1163		mg/Kg		116	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 890-6100-1 MS
 Matrix: Solid
 Analysis Batch: 72999

Client Sample ID: FS049
 Prep Type: Total/NA
 Prep Batch: 72954

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.1006		mg/Kg		101	70 - 130
Toluene	<0.00200	U	0.0996	0.1071		mg/Kg		108	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6100-1 MS
Matrix: Solid
Analysis Batch: 72999

Client Sample ID: FS049
Prep Type: Total/NA
Prep Batch: 72954

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00200	U *	0.0996	0.1271		mg/Kg		128	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2434		mg/Kg		122	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1190		mg/Kg		119	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-6100-1 MSD
Matrix: Solid
Analysis Batch: 72999

Client Sample ID: FS049
Prep Type: Total/NA
Prep Batch: 72954

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00200	U	0.0990	0.09126		mg/Kg		92	70 - 130	10	35
Toluene	<0.00200	U	0.0990	0.1001		mg/Kg		101	70 - 130	7	35
Ethylbenzene	<0.00200	U *	0.0990	0.1170		mg/Kg		118	70 - 130	8	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.2217		mg/Kg		112	70 - 130	9	35
o-Xylene	<0.00200	U	0.0990	0.1074		mg/Kg		108	70 - 130	10	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

Lab Sample ID: MB 880-72955/5-A
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72955

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/12/24 16:23	02/13/24 19:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/12/24 16:23	02/13/24 19:14	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	79		70 - 130	02/12/24 16:23	02/13/24 19:14	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/12/24 16:23	02/13/24 19:14	1

Lab Sample ID: LCS 880-72955/1-A
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72955

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				
Benzene	0.100	0.1125		mg/Kg		112	70 - 130
Toluene	0.100	0.1232		mg/Kg		123	70 - 130
Ethylbenzene	0.100	0.1135		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	0.200	0.2276		mg/Kg		114	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

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

Lab Sample ID: LCS 880-72955/1-A
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72955

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.1140		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-72955/2-A
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72955

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.08835		mg/Kg		88	70 - 130	24	35
Toluene	0.100	0.1024		mg/Kg		102	70 - 130	18	35
Ethylbenzene	0.100	0.09665		mg/Kg		97	70 - 130	16	35
m-Xylene & p-Xylene	0.200	0.1953		mg/Kg		98	70 - 130	15	35
o-Xylene	0.100	0.09790		mg/Kg		98	70 - 130	15	35

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

Lab Sample ID: 890-6100-21 MS
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: FS067
Prep Type: Total/NA
Prep Batch: 72955

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F1	0.0996	0.08307		mg/Kg		83	70 - 130
Toluene	<0.00200	U	0.0996	0.1142		mg/Kg		115	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.1027		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2143		mg/Kg		108	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1235		mg/Kg		124	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-6100-21 MSD
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: FS067
Prep Type: Total/NA
Prep Batch: 72955

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00200	U F1	0.0990	0.06653	F1	mg/Kg		67	70 - 130	22	35
Toluene	<0.00200	U	0.0990	0.09217		mg/Kg		93	70 - 130	21	35
Ethylbenzene	<0.00200	U	0.0990	0.09269		mg/Kg		94	70 - 130	10	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.1976		mg/Kg		100	70 - 130	8	35
o-Xylene	<0.00200	U	0.0990	0.1039		mg/Kg		105	70 - 130	17	35

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6100-21 MSD
Matrix: Solid
Analysis Batch: 73077

Client Sample ID: FS067
Prep Type: Total/NA
Prep Batch: 72955

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: MB 880-73002/5-A
Matrix: Solid
Analysis Batch: 72999

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73002

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/24 08:20	02/13/24 11:22	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/24 08:20	02/13/24 11:22	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/13/24 08:20	02/13/24 11:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/13/24 08:20	02/13/24 11:22	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/13/24 08:20	02/13/24 11:22	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/13/24 08:20	02/13/24 11:22	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	75		70 - 130	02/13/24 08:20	02/13/24 11:22	1
1,4-Difluorobenzene (Surr)	81		70 - 130	02/13/24 08:20	02/13/24 11:22	1

Lab Sample ID: MB 880-73089/5-A
Matrix: Solid
Analysis Batch: 73139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73089

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		02/13/24 16:42	02/14/24 13:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/13/24 16:42	02/14/24 13:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/13/24 16:42	02/14/24 13:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/13/24 16:42	02/14/24 13:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/13/24 16:42	02/14/24 13:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/13/24 16:42	02/14/24 13:14	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	84		70 - 130	02/13/24 16:42	02/14/24 13:14	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/13/24 16:42	02/14/24 13:14	1

Lab Sample ID: LCS 880-73089/1-A
Matrix: Solid
Analysis Batch: 73139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73089

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Benzene	0.100	0.07510		mg/Kg		75	70 - 130
Toluene	0.100	0.1081		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1121		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	0.200	0.2288		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1128		mg/Kg		113	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

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

Lab Sample ID: LCS 880-73089/1-A
Matrix: Solid
Analysis Batch: 73139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73089

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: LCSD 880-73089/2-A
Matrix: Solid
Analysis Batch: 73139

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73089

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1031		mg/Kg		103	70 - 130	31	35
Toluene	0.100	0.1191		mg/Kg		119	70 - 130	10	35
Ethylbenzene	0.100	0.1132		mg/Kg		113	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2319		mg/Kg		116	70 - 130	1	35
o-Xylene	0.100	0.1146		mg/Kg		115	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-39266-A-7-D MS
Matrix: Solid
Analysis Batch: 73139

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73089

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.09547		mg/Kg		95	70 - 130
Toluene	<0.00200	U	0.0996	0.1101		mg/Kg		111	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.1032		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.199	0.2107		mg/Kg		105	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1052		mg/Kg		105	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 880-39266-A-7-E MSD
Matrix: Solid
Analysis Batch: 73139

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73089

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.08771		mg/Kg		87	70 - 130	8	35
Toluene	<0.00200	U	0.0990	0.1102		mg/Kg		111	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0990	0.1078		mg/Kg		108	70 - 130	4	35
m-Xylene & p-Xylene	<0.00401	U	0.198	0.2246		mg/Kg		113	70 - 130	6	35
o-Xylene	<0.00200	U	0.0990	0.1119		mg/Kg		112	70 - 130	6	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

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

Lab Sample ID: MB 880-72498/1-A
 Matrix: Solid
 Analysis Batch: 72812

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72498

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/11/24 19:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/11/24 19:18	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/06/24 12:33	02/11/24 19:18	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	183	S1+	70 - 130			02/06/24 12:33	02/11/24 19:18	1
o-Terphenyl	159	S1+	70 - 130			02/06/24 12:33	02/11/24 19:18	1

Lab Sample ID: LCS 880-72498/2-A
 Matrix: Solid
 Analysis Batch: 72812

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72498

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	965.7		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	919.3		mg/Kg		92	70 - 130
Surrogate	LCS LCS		Limits			%Rec	Limits
	%Recovery	Qualifier					
1-Chlorooctane	105		70 - 130				
o-Terphenyl	102		70 - 130				

Lab Sample ID: LCSD 880-72498/3-A
 Matrix: Solid
 Analysis Batch: 72812

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72498

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec Limits	RPD	
		Result	Qualifier					RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	945.1		mg/Kg		95	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	891.1		mg/Kg		89	70 - 130	3	20
Surrogate	LCSD LCSD		Limits			%Rec	Limits		
	%Recovery	Qualifier							
1-Chlorooctane	100		70 - 130						
o-Terphenyl	101		70 - 130						

Lab Sample ID: 890-6100-1 MS
 Matrix: Solid
 Analysis Batch: 72812

Client Sample ID: FS049
 Prep Type: Total/NA
 Prep Batch: 72498

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	756.1		mg/Kg		74	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F1	1000	544.8	F1	mg/Kg		53	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

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

Lab Sample ID: 890-6100-1 MS
Matrix: Solid
Analysis Batch: 72812

Client Sample ID: FS049
Prep Type: Total/NA
Prep Batch: 72498

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	55	S1-	70 - 130
o-Terphenyl	39	S1-	70 - 130

Lab Sample ID: 890-6100-1 MSD
Matrix: Solid
Analysis Batch: 72812

Client Sample ID: FS049
Prep Type: Total/NA
Prep Batch: 72498

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	873.4		mg/Kg		85	70 - 130	14	20	
Diesel Range Organics (Over C10-C28)	<49.8	U F1	1000	649.5	F1	mg/Kg		63	70 - 130	18	20	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	66	S1-	70 - 130
o-Terphenyl	47	S1-	70 - 130

Lab Sample ID: MB 880-72499/1-A
Matrix: Solid
Analysis Batch: 72796

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72499

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/06/24 12:37	02/10/24 18:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/06/24 12:37	02/10/24 18:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/06/24 12:37	02/10/24 18:47	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	168	S1+	70 - 130	02/06/24 12:37	02/10/24 18:47	1
o-Terphenyl	181	S1+	70 - 130	02/06/24 12:37	02/10/24 18:47	1

Lab Sample ID: LCS 880-72499/2-A
Matrix: Solid
Analysis Batch: 72796

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72499

Analyte	Spike	LCS LCS		Unit	D	%Rec	%Rec
		Added	Result				
Gasoline Range Organics (GRO)-C6-C10	1000		921.2	mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000		898.6	mg/Kg		90	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	103		70 - 130
o-Terphenyl	101		70 - 130

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

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

Lab Sample ID: LCSD 880-72499/3-A
 Matrix: Solid
 Analysis Batch: 72796

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72499

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	1000	915.9		mg/Kg		92	70 - 130	1	20	
Diesel Range Organics (Over C10-C28)	1000	892.7		mg/Kg		89	70 - 130	1	20	
		LCSD	LCSD							
Surrogate		%Recovery	Qualifier	Limits						
1-Chlorooctane		100		70 - 130						
o-Terphenyl		97		70 - 130						

Lab Sample ID: 890-6100-21 MS
 Matrix: Solid
 Analysis Batch: 72796

Client Sample ID: FS067
 Prep Type: Total/NA
 Prep Batch: 72499

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1010	1102		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.6	U F2 F1	1010	659.5	F1	mg/Kg		63	70 - 130		
		MS	MS								
Surrogate		%Recovery	Qualifier	Limits							
1-Chlorooctane		70		70 - 130							
o-Terphenyl		62	S1-	70 - 130							

Lab Sample ID: 890-6100-21 MSD
 Matrix: Solid
 Analysis Batch: 72796

Client Sample ID: FS067
 Prep Type: Total/NA
 Prep Batch: 72499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1010	980.1		mg/Kg		94	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	<49.6	U F2 F1	1010	937.3	F2	mg/Kg		91	70 - 130	35	20
		MSD	MSD								
Surrogate		%Recovery	Qualifier	Limits							
1-Chlorooctane		97		70 - 130							
o-Terphenyl		87		70 - 130							

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72361/1-A
 Matrix: Solid
 Analysis Batch: 72505

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/07/24 00:28	1

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-72361/2-A
 Matrix: Solid
 Analysis Batch: 72505

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	252.4		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-72361/3-A
 Matrix: Solid
 Analysis Batch: 72505

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	250.0		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 890-6100-21 MS
 Matrix: Solid
 Analysis Batch: 72505

Client Sample ID: FS067
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	89.6		250	315.6		mg/Kg		91	90 - 110

Lab Sample ID: 890-6100-21 MSD
 Matrix: Solid
 Analysis Batch: 72505

Client Sample ID: FS067
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	89.6		250	319.1		mg/Kg		92	90 - 110	1	20

Lab Sample ID: 890-6100-31 MS
 Matrix: Solid
 Analysis Batch: 72505

Client Sample ID: FS124
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	982	F1	249	1145	F1	mg/Kg		65	90 - 110

Lab Sample ID: 890-6100-31 MSD
 Matrix: Solid
 Analysis Batch: 72505

Client Sample ID: FS124
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	982	F1	249	1141	F1	mg/Kg		64	90 - 110	0	20

Lab Sample ID: MB 880-72453/1-A
 Matrix: Solid
 Analysis Batch: 72534

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/07/24 09:26	1

Lab Sample ID: LCS 880-72453/2-A
 Matrix: Solid
 Analysis Batch: 72534

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	253.4		mg/Kg		101	90 - 110

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 880-72453/3-A
 Matrix: Solid
 Analysis Batch: 72534

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	252.9		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-38948-A-1-C MS
 Matrix: Solid
 Analysis Batch: 72534

Client Sample ID: Matrix Spike
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	864	F1	1260	2586	F1	mg/Kg		137	90 - 110

Lab Sample ID: 880-38948-A-1-D MSD
 Matrix: Solid
 Analysis Batch: 72534

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	864	F1	1260	2587	F1	mg/Kg		137	90 - 110	0	20

Lab Sample ID: MB 880-72359/1-A
 Matrix: Solid
 Analysis Batch: 72544

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/07/24 11:35	1

Lab Sample ID: LCS 880-72359/2-A
 Matrix: Solid
 Analysis Batch: 72544

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251.6		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-72359/3-A
 Matrix: Solid
 Analysis Batch: 72544

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	250.5		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-6100-1 MS
 Matrix: Solid
 Analysis Batch: 72544

Client Sample ID: FS049
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	606	F1	252	828.9	F1	mg/Kg		88	90 - 110

Lab Sample ID: 890-6100-1 MSD
 Matrix: Solid
 Analysis Batch: 72544

Client Sample ID: FS049
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	606	F1	252	830.1	F1	mg/Kg		89	90 - 110	0	20

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-6100-11 MS
 Matrix: Solid
 Analysis Batch: 72544

Client Sample ID: FS109
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	163		253	405.9		mg/Kg		96	90 - 110

Lab Sample ID: 890-6100-11 MSD
 Matrix: Solid
 Analysis Batch: 72544

Client Sample ID: FS109
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	163		253	406.0		mg/Kg		96	90 - 110	0	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

GC VOA

Prep Batch: 72954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1	FS049	Total/NA	Solid	5035	
890-6100-2	FS113	Total/NA	Solid	5035	
890-6100-3	FS114	Total/NA	Solid	5035	
890-6100-4	FS115	Total/NA	Solid	5035	
890-6100-5	FS116	Total/NA	Solid	5035	
890-6100-6	FS118	Total/NA	Solid	5035	
890-6100-7	FS105	Total/NA	Solid	5035	
890-6100-8	FS106	Total/NA	Solid	5035	
890-6100-9	FS107	Total/NA	Solid	5035	
890-6100-10	FS108	Total/NA	Solid	5035	
890-6100-11	FS109	Total/NA	Solid	5035	
890-6100-12	FS110	Total/NA	Solid	5035	
890-6100-13	FS111	Total/NA	Solid	5035	
890-6100-14	FS112	Total/NA	Solid	5035	
890-6100-15	FS007	Total/NA	Solid	5035	
890-6100-16	FS016	Total/NA	Solid	5035	
890-6100-17	FS018	Total/NA	Solid	5035	
890-6100-18	FS019	Total/NA	Solid	5035	
890-6100-19	FS021	Total/NA	Solid	5035	
890-6100-20	FS022	Total/NA	Solid	5035	
MB 880-72954/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72954/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72954/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6100-1 MS	FS049	Total/NA	Solid	5035	
890-6100-1 MSD	FS049	Total/NA	Solid	5035	

Prep Batch: 72955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-21	FS067	Total/NA	Solid	5035	
890-6100-22	FS069	Total/NA	Solid	5035	
890-6100-23	FS071	Total/NA	Solid	5035	
890-6100-24	FS073	Total/NA	Solid	5035	
890-6100-25	FS079	Total/NA	Solid	5035	
890-6100-26	FS80	Total/NA	Solid	5035	
890-6100-27	FS081	Total/NA	Solid	5035	
890-6100-28	FS082	Total/NA	Solid	5035	
890-6100-29	FS083	Total/NA	Solid	5035	
890-6100-30	FS123	Total/NA	Solid	5035	
890-6100-31	FS124	Total/NA	Solid	5035	
890-6100-32	FS125	Total/NA	Solid	5035	
890-6100-33	FS126	Total/NA	Solid	5035	
MB 880-72955/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72955/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72955/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6100-21 MS	FS067	Total/NA	Solid	5035	
890-6100-21 MSD	FS067	Total/NA	Solid	5035	

Analysis Batch: 72999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1	FS049	Total/NA	Solid	8021B	72954
890-6100-2	FS113	Total/NA	Solid	8021B	72954

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

GC VOA (Continued)

Analysis Batch: 72999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-3	FS114	Total/NA	Solid	8021B	72954
890-6100-4	FS115	Total/NA	Solid	8021B	72954
890-6100-5	FS116	Total/NA	Solid	8021B	72954
890-6100-6	FS118	Total/NA	Solid	8021B	72954
890-6100-7	FS105	Total/NA	Solid	8021B	72954
890-6100-8	FS106	Total/NA	Solid	8021B	72954
890-6100-9	FS107	Total/NA	Solid	8021B	72954
890-6100-10	FS108	Total/NA	Solid	8021B	72954
890-6100-11	FS109	Total/NA	Solid	8021B	72954
890-6100-12	FS110	Total/NA	Solid	8021B	72954
890-6100-13	FS111	Total/NA	Solid	8021B	72954
890-6100-14	FS112	Total/NA	Solid	8021B	72954
890-6100-15	FS007	Total/NA	Solid	8021B	72954
890-6100-16	FS016	Total/NA	Solid	8021B	72954
890-6100-17	FS018	Total/NA	Solid	8021B	72954
890-6100-18	FS019	Total/NA	Solid	8021B	72954
890-6100-19	FS021	Total/NA	Solid	8021B	72954
890-6100-20	FS022	Total/NA	Solid	8021B	72954
MB 880-72954/5-A	Method Blank	Total/NA	Solid	8021B	72954
MB 880-73002/5-A	Method Blank	Total/NA	Solid	8021B	73002
LCS 880-72954/1-A	Lab Control Sample	Total/NA	Solid	8021B	72954
LCSD 880-72954/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72954
890-6100-1 MS	FS049	Total/NA	Solid	8021B	72954
890-6100-1 MSD	FS049	Total/NA	Solid	8021B	72954

Prep Batch: 73002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73002/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-21	FS067	Total/NA	Solid	8021B	72955
890-6100-22	FS069	Total/NA	Solid	8021B	72955
890-6100-23	FS071	Total/NA	Solid	8021B	72955
890-6100-24	FS073	Total/NA	Solid	8021B	72955
890-6100-25	FS079	Total/NA	Solid	8021B	72955
890-6100-26	FS80	Total/NA	Solid	8021B	72955
890-6100-27	FS081	Total/NA	Solid	8021B	72955
890-6100-28	FS082	Total/NA	Solid	8021B	72955
890-6100-29	FS083	Total/NA	Solid	8021B	72955
890-6100-30	FS123	Total/NA	Solid	8021B	72955
890-6100-31	FS124	Total/NA	Solid	8021B	72955
890-6100-32	FS125	Total/NA	Solid	8021B	72955
890-6100-33	FS126	Total/NA	Solid	8021B	72955
MB 880-72955/5-A	Method Blank	Total/NA	Solid	8021B	72955
LCS 880-72955/1-A	Lab Control Sample	Total/NA	Solid	8021B	72955
LCSD 880-72955/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72955
890-6100-21 MS	FS067	Total/NA	Solid	8021B	72955
890-6100-21 MSD	FS067	Total/NA	Solid	8021B	72955

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

GC VOA

Prep Batch: 73089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-34	FS127	Total/NA	Solid	5035	
MB 880-73089/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73089/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73089/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39266-A-7-D MS	Matrix Spike	Total/NA	Solid	5035	
880-39266-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-34	FS127	Total/NA	Solid	8021B	73089
MB 880-73089/5-A	Method Blank	Total/NA	Solid	8021B	73089
LCS 880-73089/1-A	Lab Control Sample	Total/NA	Solid	8021B	73089
LCSD 880-73089/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73089
880-39266-A-7-D MS	Matrix Spike	Total/NA	Solid	8021B	73089
880-39266-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73089

Analysis Batch: 73153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1	FS049	Total/NA	Solid	Total BTEX	
890-6100-2	FS113	Total/NA	Solid	Total BTEX	
890-6100-3	FS114	Total/NA	Solid	Total BTEX	
890-6100-4	FS115	Total/NA	Solid	Total BTEX	
890-6100-5	FS116	Total/NA	Solid	Total BTEX	
890-6100-6	FS118	Total/NA	Solid	Total BTEX	
890-6100-7	FS105	Total/NA	Solid	Total BTEX	
890-6100-8	FS106	Total/NA	Solid	Total BTEX	
890-6100-9	FS107	Total/NA	Solid	Total BTEX	
890-6100-10	FS108	Total/NA	Solid	Total BTEX	
890-6100-11	FS109	Total/NA	Solid	Total BTEX	
890-6100-12	FS110	Total/NA	Solid	Total BTEX	
890-6100-13	FS111	Total/NA	Solid	Total BTEX	
890-6100-14	FS112	Total/NA	Solid	Total BTEX	
890-6100-15	FS007	Total/NA	Solid	Total BTEX	
890-6100-16	FS016	Total/NA	Solid	Total BTEX	
890-6100-17	FS018	Total/NA	Solid	Total BTEX	
890-6100-18	FS019	Total/NA	Solid	Total BTEX	
890-6100-19	FS021	Total/NA	Solid	Total BTEX	
890-6100-20	FS022	Total/NA	Solid	Total BTEX	
890-6100-21	FS067	Total/NA	Solid	Total BTEX	
890-6100-22	FS069	Total/NA	Solid	Total BTEX	
890-6100-23	FS071	Total/NA	Solid	Total BTEX	
890-6100-24	FS073	Total/NA	Solid	Total BTEX	
890-6100-25	FS079	Total/NA	Solid	Total BTEX	
890-6100-26	FS80	Total/NA	Solid	Total BTEX	
890-6100-27	FS081	Total/NA	Solid	Total BTEX	
890-6100-28	FS082	Total/NA	Solid	Total BTEX	
890-6100-29	FS083	Total/NA	Solid	Total BTEX	
890-6100-30	FS123	Total/NA	Solid	Total BTEX	
890-6100-31	FS124	Total/NA	Solid	Total BTEX	
890-6100-32	FS125	Total/NA	Solid	Total BTEX	
890-6100-33	FS126	Total/NA	Solid	Total BTEX	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

GC VOA (Continued)

Analysis Batch: 73153 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-34	FS127	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1	FS049	Total/NA	Solid	8015NM Prep	
890-6100-2	FS113	Total/NA	Solid	8015NM Prep	
890-6100-3	FS114	Total/NA	Solid	8015NM Prep	
890-6100-4	FS115	Total/NA	Solid	8015NM Prep	
890-6100-5	FS116	Total/NA	Solid	8015NM Prep	
890-6100-6	FS118	Total/NA	Solid	8015NM Prep	
890-6100-7	FS105	Total/NA	Solid	8015NM Prep	
890-6100-8	FS106	Total/NA	Solid	8015NM Prep	
890-6100-9	FS107	Total/NA	Solid	8015NM Prep	
890-6100-10	FS108	Total/NA	Solid	8015NM Prep	
890-6100-11	FS109	Total/NA	Solid	8015NM Prep	
890-6100-12	FS110	Total/NA	Solid	8015NM Prep	
890-6100-13	FS111	Total/NA	Solid	8015NM Prep	
890-6100-14	FS112	Total/NA	Solid	8015NM Prep	
890-6100-15	FS007	Total/NA	Solid	8015NM Prep	
890-6100-16	FS016	Total/NA	Solid	8015NM Prep	
890-6100-17	FS018	Total/NA	Solid	8015NM Prep	
890-6100-18	FS019	Total/NA	Solid	8015NM Prep	
890-6100-19	FS021	Total/NA	Solid	8015NM Prep	
890-6100-20	FS022	Total/NA	Solid	8015NM Prep	
MB 880-72498/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72498/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72498/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6100-1 MS	FS049	Total/NA	Solid	8015NM Prep	
890-6100-1 MSD	FS049	Total/NA	Solid	8015NM Prep	

Prep Batch: 72499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-21	FS067	Total/NA	Solid	8015NM Prep	
890-6100-22	FS069	Total/NA	Solid	8015NM Prep	
890-6100-23	FS071	Total/NA	Solid	8015NM Prep	
890-6100-24	FS073	Total/NA	Solid	8015NM Prep	
890-6100-25	FS079	Total/NA	Solid	8015NM Prep	
890-6100-26	FS80	Total/NA	Solid	8015NM Prep	
890-6100-27	FS081	Total/NA	Solid	8015NM Prep	
890-6100-28	FS082	Total/NA	Solid	8015NM Prep	
890-6100-29	FS083	Total/NA	Solid	8015NM Prep	
890-6100-30	FS123	Total/NA	Solid	8015NM Prep	
890-6100-31	FS124	Total/NA	Solid	8015NM Prep	
890-6100-32	FS125	Total/NA	Solid	8015NM Prep	
890-6100-33	FS126	Total/NA	Solid	8015NM Prep	
890-6100-34	FS127	Total/NA	Solid	8015NM Prep	
MB 880-72499/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72499/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72499/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

GC Semi VOA (Continued)

Prep Batch: 72499 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-21 MS	FS067	Total/NA	Solid	8015NM Prep	
890-6100-21 MSD	FS067	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-21	FS067	Total/NA	Solid	8015B NM	72499
890-6100-22	FS069	Total/NA	Solid	8015B NM	72499
890-6100-23	FS071	Total/NA	Solid	8015B NM	72499
890-6100-24	FS073	Total/NA	Solid	8015B NM	72499
890-6100-25	FS079	Total/NA	Solid	8015B NM	72499
890-6100-26	FS80	Total/NA	Solid	8015B NM	72499
890-6100-27	FS081	Total/NA	Solid	8015B NM	72499
890-6100-28	FS082	Total/NA	Solid	8015B NM	72499
890-6100-29	FS083	Total/NA	Solid	8015B NM	72499
890-6100-30	FS123	Total/NA	Solid	8015B NM	72499
890-6100-31	FS124	Total/NA	Solid	8015B NM	72499
890-6100-32	FS125	Total/NA	Solid	8015B NM	72499
890-6100-33	FS126	Total/NA	Solid	8015B NM	72499
890-6100-34	FS127	Total/NA	Solid	8015B NM	72499
MB 880-72499/1-A	Method Blank	Total/NA	Solid	8015B NM	72499
LCS 880-72499/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72499
LCSD 880-72499/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72499
890-6100-21 MS	FS067	Total/NA	Solid	8015B NM	72499
890-6100-21 MSD	FS067	Total/NA	Solid	8015B NM	72499

Analysis Batch: 72812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1	FS049	Total/NA	Solid	8015B NM	72498
890-6100-2	FS113	Total/NA	Solid	8015B NM	72498
890-6100-3	FS114	Total/NA	Solid	8015B NM	72498
890-6100-4	FS115	Total/NA	Solid	8015B NM	72498
890-6100-5	FS116	Total/NA	Solid	8015B NM	72498
890-6100-6	FS118	Total/NA	Solid	8015B NM	72498
890-6100-7	FS105	Total/NA	Solid	8015B NM	72498
890-6100-8	FS106	Total/NA	Solid	8015B NM	72498
890-6100-9	FS107	Total/NA	Solid	8015B NM	72498
890-6100-10	FS108	Total/NA	Solid	8015B NM	72498
890-6100-11	FS109	Total/NA	Solid	8015B NM	72498
890-6100-12	FS110	Total/NA	Solid	8015B NM	72498
890-6100-13	FS111	Total/NA	Solid	8015B NM	72498
890-6100-14	FS112	Total/NA	Solid	8015B NM	72498
890-6100-15	FS007	Total/NA	Solid	8015B NM	72498
890-6100-16	FS016	Total/NA	Solid	8015B NM	72498
890-6100-17	FS018	Total/NA	Solid	8015B NM	72498
890-6100-18	FS019	Total/NA	Solid	8015B NM	72498
890-6100-19	FS021	Total/NA	Solid	8015B NM	72498
890-6100-20	FS022	Total/NA	Solid	8015B NM	72498
MB 880-72498/1-A	Method Blank	Total/NA	Solid	8015B NM	72498
LCS 880-72498/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72498
LCSD 880-72498/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72498
890-6100-1 MS	FS049	Total/NA	Solid	8015B NM	72498

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

GC Semi VOA (Continued)

Analysis Batch: 72812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1 MSD	FS049	Total/NA	Solid	8015B NM	72498

Analysis Batch: 72966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1	FS049	Total/NA	Solid	8015 NM	
890-6100-2	FS113	Total/NA	Solid	8015 NM	
890-6100-3	FS114	Total/NA	Solid	8015 NM	
890-6100-4	FS115	Total/NA	Solid	8015 NM	
890-6100-5	FS116	Total/NA	Solid	8015 NM	
890-6100-6	FS118	Total/NA	Solid	8015 NM	
890-6100-7	FS105	Total/NA	Solid	8015 NM	
890-6100-8	FS106	Total/NA	Solid	8015 NM	
890-6100-9	FS107	Total/NA	Solid	8015 NM	
890-6100-10	FS108	Total/NA	Solid	8015 NM	
890-6100-11	FS109	Total/NA	Solid	8015 NM	
890-6100-12	FS110	Total/NA	Solid	8015 NM	
890-6100-13	FS111	Total/NA	Solid	8015 NM	
890-6100-14	FS112	Total/NA	Solid	8015 NM	
890-6100-15	FS007	Total/NA	Solid	8015 NM	
890-6100-16	FS016	Total/NA	Solid	8015 NM	
890-6100-17	FS018	Total/NA	Solid	8015 NM	
890-6100-18	FS019	Total/NA	Solid	8015 NM	
890-6100-19	FS021	Total/NA	Solid	8015 NM	
890-6100-20	FS022	Total/NA	Solid	8015 NM	
890-6100-21	FS067	Total/NA	Solid	8015 NM	
890-6100-22	FS069	Total/NA	Solid	8015 NM	
890-6100-23	FS071	Total/NA	Solid	8015 NM	
890-6100-24	FS073	Total/NA	Solid	8015 NM	
890-6100-25	FS079	Total/NA	Solid	8015 NM	
890-6100-26	FS80	Total/NA	Solid	8015 NM	
890-6100-27	FS081	Total/NA	Solid	8015 NM	
890-6100-28	FS082	Total/NA	Solid	8015 NM	
890-6100-29	FS083	Total/NA	Solid	8015 NM	
890-6100-30	FS123	Total/NA	Solid	8015 NM	
890-6100-31	FS124	Total/NA	Solid	8015 NM	
890-6100-32	FS125	Total/NA	Solid	8015 NM	
890-6100-33	FS126	Total/NA	Solid	8015 NM	
890-6100-34	FS127	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 72359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1	FS049	Soluble	Solid	DI Leach	
890-6100-2	FS113	Soluble	Solid	DI Leach	
890-6100-3	FS114	Soluble	Solid	DI Leach	
890-6100-4	FS115	Soluble	Solid	DI Leach	
890-6100-5	FS116	Soluble	Solid	DI Leach	
890-6100-6	FS118	Soluble	Solid	DI Leach	
890-6100-7	FS105	Soluble	Solid	DI Leach	
890-6100-8	FS106	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

HPLC/IC (Continued)

Leach Batch: 72359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-9	FS107	Soluble	Solid	DI Leach	
890-6100-10	FS108	Soluble	Solid	DI Leach	
890-6100-11	FS109	Soluble	Solid	DI Leach	
890-6100-12	FS110	Soluble	Solid	DI Leach	
890-6100-13	FS111	Soluble	Solid	DI Leach	
890-6100-14	FS112	Soluble	Solid	DI Leach	
890-6100-15	FS007	Soluble	Solid	DI Leach	
890-6100-16	FS016	Soluble	Solid	DI Leach	
890-6100-17	FS018	Soluble	Solid	DI Leach	
MB 880-72359/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72359/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72359/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6100-1 MS	FS049	Soluble	Solid	DI Leach	
890-6100-1 MSD	FS049	Soluble	Solid	DI Leach	
890-6100-11 MS	FS109	Soluble	Solid	DI Leach	
890-6100-11 MSD	FS109	Soluble	Solid	DI Leach	

Leach Batch: 72361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-21	FS067	Soluble	Solid	DI Leach	
890-6100-22	FS069	Soluble	Solid	DI Leach	
890-6100-23	FS071	Soluble	Solid	DI Leach	
890-6100-24	FS073	Soluble	Solid	DI Leach	
890-6100-25	FS079	Soluble	Solid	DI Leach	
890-6100-26	FS80	Soluble	Solid	DI Leach	
890-6100-27	FS081	Soluble	Solid	DI Leach	
890-6100-28	FS082	Soluble	Solid	DI Leach	
890-6100-29	FS083	Soluble	Solid	DI Leach	
890-6100-30	FS123	Soluble	Solid	DI Leach	
890-6100-31	FS124	Soluble	Solid	DI Leach	
890-6100-32	FS125	Soluble	Solid	DI Leach	
890-6100-33	FS126	Soluble	Solid	DI Leach	
890-6100-34	FS127	Soluble	Solid	DI Leach	
MB 880-72361/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72361/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72361/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6100-21 MS	FS067	Soluble	Solid	DI Leach	
890-6100-21 MSD	FS067	Soluble	Solid	DI Leach	
890-6100-31 MS	FS124	Soluble	Solid	DI Leach	
890-6100-31 MSD	FS124	Soluble	Solid	DI Leach	

Leach Batch: 72453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-18	FS019	Soluble	Solid	DI Leach	
890-6100-19	FS021	Soluble	Solid	DI Leach	
890-6100-20	FS022	Soluble	Solid	DI Leach	
MB 880-72453/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72453/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72453/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38948-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-38948-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
SDG: 03C2884002

HPLC/IC

Analysis Batch: 72505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-21	FS067	Soluble	Solid	300.0	72361
890-6100-22	FS069	Soluble	Solid	300.0	72361
890-6100-23	FS071	Soluble	Solid	300.0	72361
890-6100-24	FS073	Soluble	Solid	300.0	72361
890-6100-25	FS079	Soluble	Solid	300.0	72361
890-6100-26	FS80	Soluble	Solid	300.0	72361
890-6100-27	FS081	Soluble	Solid	300.0	72361
890-6100-28	FS082	Soluble	Solid	300.0	72361
890-6100-29	FS083	Soluble	Solid	300.0	72361
890-6100-30	FS123	Soluble	Solid	300.0	72361
890-6100-31	FS124	Soluble	Solid	300.0	72361
890-6100-32	FS125	Soluble	Solid	300.0	72361
890-6100-33	FS126	Soluble	Solid	300.0	72361
890-6100-34	FS127	Soluble	Solid	300.0	72361
MB 880-72361/1-A	Method Blank	Soluble	Solid	300.0	72361
LCS 880-72361/2-A	Lab Control Sample	Soluble	Solid	300.0	72361
LCSD 880-72361/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72361
890-6100-21 MS	FS067	Soluble	Solid	300.0	72361
890-6100-21 MSD	FS067	Soluble	Solid	300.0	72361
890-6100-31 MS	FS124	Soluble	Solid	300.0	72361
890-6100-31 MSD	FS124	Soluble	Solid	300.0	72361

Analysis Batch: 72534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-18	FS019	Soluble	Solid	300.0	72453
890-6100-19	FS021	Soluble	Solid	300.0	72453
890-6100-20	FS022	Soluble	Solid	300.0	72453
MB 880-72453/1-A	Method Blank	Soluble	Solid	300.0	72453
LCS 880-72453/2-A	Lab Control Sample	Soluble	Solid	300.0	72453
LCSD 880-72453/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72453
880-38948-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	72453
880-38948-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	72453

Analysis Batch: 72544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-1	FS049	Soluble	Solid	300.0	72359
890-6100-2	FS113	Soluble	Solid	300.0	72359
890-6100-3	FS114	Soluble	Solid	300.0	72359
890-6100-4	FS115	Soluble	Solid	300.0	72359
890-6100-5	FS116	Soluble	Solid	300.0	72359
890-6100-6	FS118	Soluble	Solid	300.0	72359
890-6100-7	FS105	Soluble	Solid	300.0	72359
890-6100-8	FS106	Soluble	Solid	300.0	72359
890-6100-9	FS107	Soluble	Solid	300.0	72359
890-6100-10	FS108	Soluble	Solid	300.0	72359
890-6100-11	FS109	Soluble	Solid	300.0	72359
890-6100-12	FS110	Soluble	Solid	300.0	72359
890-6100-13	FS111	Soluble	Solid	300.0	72359
890-6100-14	FS112	Soluble	Solid	300.0	72359
890-6100-15	FS007	Soluble	Solid	300.0	72359
890-6100-16	FS016	Soluble	Solid	300.0	72359

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
SDG: 03C2884002

HPLC/IC (Continued)

Analysis Batch: 72544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6100-17	FS018	Soluble	Solid	300.0	72359
MB 880-72359/1-A	Method Blank	Soluble	Solid	300.0	72359
LCS 880-72359/2-A	Lab Control Sample	Soluble	Solid	300.0	72359
LCSD 880-72359/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72359
890-6100-1 MS	FS049	Soluble	Solid	300.0	72359
890-6100-1 MSD	FS049	Soluble	Solid	300.0	72359
890-6100-11 MS	FS109	Soluble	Solid	300.0	72359
890-6100-11 MSD	FS109	Soluble	Solid	300.0	72359

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS049

Lab Sample ID: 890-6100-1

Date Collected: 02/01/24 08:50

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/13/24 22:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 22:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 20:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 20:26	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 11:55	CH	EET MID

Client Sample ID: FS113

Lab Sample ID: 890-6100-2

Date Collected: 02/01/24 09:12

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/13/24 22:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 22:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 21:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 21:36	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 12:15	CH	EET MID

Client Sample ID: FS114

Lab Sample ID: 890-6100-3

Date Collected: 02/01/24 09:13

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/13/24 23:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 23:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 21:58	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 21:58	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 12:22	CH	EET MID

Client Sample ID: FS115

Lab Sample ID: 890-6100-4

Date Collected: 02/01/24 09:15

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/13/24 23:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 23:21	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS115

Lab Sample ID: 890-6100-4

Date Collected: 02/01/24 09:15

Matrix: Solid

Date Received: 02/02/24 10:23

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			72966	02/11/24 22:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 22:21	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 12:29	CH	EET MID

Client Sample ID: FS116

Lab Sample ID: 890-6100-5

Date Collected: 02/01/24 09:15

Matrix: Solid

Date Received: 02/02/24 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/13/24 23:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 23:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 22:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 22:43	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 12:36	CH	EET MID

Client Sample ID: FS118

Lab Sample ID: 890-6100-6

Date Collected: 02/01/24 09:18

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 00:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 00:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 23:05	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 23:05	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 12:56	CH	EET MID

Client Sample ID: FS105

Lab Sample ID: 890-6100-7

Date Collected: 02/01/24 09:02

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 00:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 00:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 23:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 23:26	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS105
 Date Collected: 02/01/24 09:02
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-7
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 13:03	CH	EET MID

Client Sample ID: FS106
 Date Collected: 02/01/24 09:03
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-8
 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			5.01 g	5 mL	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 00:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 00:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 23:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/11/24 23:48	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 13:10	CH	EET MID

Client Sample ID: FS107
 Date Collected: 02/01/24 09:04
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-9
 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			4.97 g	5 mL	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 01:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 01:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 00:10	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 00:10	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 13:16	CH	EET MID

Client Sample ID: FS108
 Date Collected: 02/01/24 09:05
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-10
 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			4.99 g	5 mL	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 01:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 01:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 00:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 00:31	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 13:23	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS109

Lab Sample ID: 890-6100-11

Date Collected: 02/01/24 09:06

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 02:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 02:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 01:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 01:15	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 13:30	CH	EET MID

Client Sample ID: FS110

Lab Sample ID: 890-6100-12

Date Collected: 02/01/24 09:07

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 03:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 03:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 01:37	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 01:37	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 13:50	CH	EET MID

Client Sample ID: FS111

Lab Sample ID: 890-6100-13

Date Collected: 02/01/24 09:08

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 03:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 03:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 01:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 01:58	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 13:57	CH	EET MID

Client Sample ID: FS112

Lab Sample ID: 890-6100-14

Date Collected: 02/01/24 09:10

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 03:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 03:47	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS112

Lab Sample ID: 890-6100-14

Date Collected: 02/01/24 09:10

Matrix: Solid

Date Received: 02/02/24 10:23

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			72966	02/12/24 02:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 02:20	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 14:17	CH	EET MID

Client Sample ID: FS007

Lab Sample ID: 890-6100-15

Date Collected: 02/01/24 11:52

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 04:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 04:08	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 02:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 02:42	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 14:24	CH	EET MID

Client Sample ID: FS016

Lab Sample ID: 890-6100-16

Date Collected: 02/01/24 11:55

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 04:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 04:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 03:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 03:03	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 14:31	CH	EET MID

Client Sample ID: FS018

Lab Sample ID: 890-6100-17

Date Collected: 02/01/24 11:56

Matrix: Solid

Date Received: 02/02/24 10:23

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	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 04:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 04:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 03:25	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 03:25	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS018
 Date Collected: 02/01/24 11:56
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-17
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	72359	02/05/24 11:11	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72544	02/07/24 14:38	CH	EET MID

Client Sample ID: FS019
 Date Collected: 02/01/24 11:58
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-18
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 05:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 05:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 03:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 03:47	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	72453	02/06/24 09:56	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72534	02/07/24 10:47	CH	EET MID

Client Sample ID: FS021
 Date Collected: 02/01/24 11:59
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-19
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 05:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 05:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 04:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 04:09	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72453	02/06/24 09:56	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72534	02/07/24 10:54	CH	EET MID

Client Sample ID: FS022
 Date Collected: 02/01/24 12:00
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-20
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	72954	02/12/24 16:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72999	02/14/24 05:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 05:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/12/24 04:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	72498	02/06/24 12:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72812	02/12/24 04:30	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72453	02/06/24 09:56	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	72534	02/07/24 11:01	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS067

Lab Sample ID: 890-6100-21

Date Collected: 02/01/24 12:03

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 19:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 19:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 19:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 19:55	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 00:49	CH	EET MID

Client Sample ID: FS069

Lab Sample ID: 890-6100-22

Date Collected: 02/01/24 12:04

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 19:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 19:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 21:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 21:02	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 01:09	CH	EET MID

Client Sample ID: FS071

Lab Sample ID: 890-6100-23

Date Collected: 02/01/24 12:05

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 20:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 20:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 21:24	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 21:24	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 01:16	CH	EET MID

Client Sample ID: FS073

Lab Sample ID: 890-6100-24

Date Collected: 02/01/24 12:06

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 20:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 20:37	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS073

Lab Sample ID: 890-6100-24

Date Collected: 02/01/24 12:06

Matrix: Solid

Date Received: 02/02/24 10:23

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			72966	02/10/24 21:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 21:47	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 01:22	CH	EET MID

Client Sample ID: FS079

Lab Sample ID: 890-6100-25

Date Collected: 02/01/24 13:31

Matrix: Solid

Date Received: 02/02/24 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 20:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 20:58	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 22:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 22:09	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 01:29	CH	EET MID

Client Sample ID: FS80

Lab Sample ID: 890-6100-26

Date Collected: 02/01/24 12:32

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 21:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 21:18	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 22:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 22:31	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 01:50	CH	EET MID

Client Sample ID: FS081

Lab Sample ID: 890-6100-27

Date Collected: 02/01/24 12:33

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 21:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 21:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 22:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 22:52	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS081

Lab Sample ID: 890-6100-27

Date Collected: 02/01/24 12:33

Matrix: Solid

Date Received: 02/02/24 10:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 01:56	CH	EET MID

Client Sample ID: FS082

Lab Sample ID: 890-6100-28

Date Collected: 02/01/24 12:34

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 21:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 21:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 23:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 23:13	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 02:03	CH	EET MID

Client Sample ID: FS083

Lab Sample ID: 890-6100-29

Date Collected: 02/01/24 12:34

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 22:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 22:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 23:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 23:35	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 02:10	CH	EET MID

Client Sample ID: FS123

Lab Sample ID: 890-6100-30

Date Collected: 02/01/24 14:34

Matrix: Solid

Date Received: 02/02/24 10:23

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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/13/24 22:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/13/24 22:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/10/24 23:57	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/10/24 23:57	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 02:17	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Client Sample ID: FS124
 Date Collected: 02/01/24 14:35
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-31
 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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/14/24 00:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 00:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 00:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/11/24 00:40	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 02:24	CH	EET MID

Client Sample ID: FS125
 Date Collected: 02/01/24 14:36
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-32
 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	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/14/24 00:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 00:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 01:01	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/11/24 01:01	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 02:44	CH	EET MID

Client Sample ID: FS126
 Date Collected: 02/01/24 14:37
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-33
 Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	72955	02/12/24 16:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73077	02/14/24 00:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 00:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			72966	02/11/24 01:22	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/11/24 01:22	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 02:51	CH	EET MID

Client Sample ID: FS127
 Date Collected: 02/01/24 14:38
 Date Received: 02/02/24 10:23

Lab Sample ID: 890-6100-34
 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	73089	02/14/24 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73139	02/14/24 15:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73153	02/14/24 15:38	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
SDG: 03C2884002

Client Sample ID: FS127

Lab Sample ID: 890-6100-34

Date Collected: 02/01/24 14:38

Matrix: Solid

Date Received: 02/02/24 10:23

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			72966	02/11/24 01:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	72499	02/06/24 12:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72796	02/11/24 01:43	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	72361	02/05/24 11:24	SMC	EET MID
Soluble	Analysis	300.0		1			72505	02/07/24 03:11	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
SDG: 03C2884002

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	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
SDG: 03C2884002

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Sample Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6100-1
 SDG: 03C2884002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6100-1	FS049	Solid	02/01/24 08:50	02/02/24 10:23	1'
890-6100-2	FS113	Solid	02/01/24 09:12	02/02/24 10:23	1'
890-6100-3	FS114	Solid	02/01/24 09:13	02/02/24 10:23	1'
890-6100-4	FS115	Solid	02/01/24 09:15	02/02/24 10:23	1'
890-6100-5	FS116	Solid	02/01/24 09:15	02/02/24 10:23	1'
890-6100-6	FS118	Solid	02/01/24 09:18	02/02/24 10:23	1'
890-6100-7	FS105	Solid	02/01/24 09:02	02/02/24 10:23	1'
890-6100-8	FS106	Solid	02/01/24 09:03	02/02/24 10:23	1'
890-6100-9	FS107	Solid	02/01/24 09:04	02/02/24 10:23	1'
890-6100-10	FS108	Solid	02/01/24 09:05	02/02/24 10:23	1'
890-6100-11	FS109	Solid	02/01/24 09:06	02/02/24 10:23	1'
890-6100-12	FS110	Solid	02/01/24 09:07	02/02/24 10:23	1'
890-6100-13	FS111	Solid	02/01/24 09:08	02/02/24 10:23	1'
890-6100-14	FS112	Solid	02/01/24 09:10	02/02/24 10:23	1'
890-6100-15	FS007	Solid	02/01/24 11:52	02/02/24 10:23	2'
890-6100-16	FS016	Solid	02/01/24 11:55	02/02/24 10:23	2'
890-6100-17	FS018	Solid	02/01/24 11:56	02/02/24 10:23	2'
890-6100-18	FS019	Solid	02/01/24 11:58	02/02/24 10:23	2'
890-6100-19	FS021	Solid	02/01/24 11:59	02/02/24 10:23	2'
890-6100-20	FS022	Solid	02/01/24 12:00	02/02/24 10:23	2'
890-6100-21	FS067	Solid	02/01/24 12:03	02/02/24 10:23	2'
890-6100-22	FS069	Solid	02/01/24 12:04	02/02/24 10:23	2'
890-6100-23	FS071	Solid	02/01/24 12:05	02/02/24 10:23	2'
890-6100-24	FS073	Solid	02/01/24 12:06	02/02/24 10:23	2'
890-6100-25	FS079	Solid	02/01/24 13:31	02/02/24 10:23	2'
890-6100-26	FS80	Solid	02/01/24 12:32	02/02/24 10:23	2'
890-6100-27	FS081	Solid	02/01/24 12:33	02/02/24 10:23	2'
890-6100-28	FS082	Solid	02/01/24 12:34	02/02/24 10:23	2'
890-6100-29	FS083	Solid	02/01/24 12:34	02/02/24 10:23	2'
890-6100-30	FS123	Solid	02/01/24 14:34	02/02/24 10:23	2'
890-6100-31	FS124	Solid	02/01/24 14:35	02/02/24 10:23	2'
890-6100-32	FS125	Solid	02/01/24 14:36	02/02/24 10:23	2'
890-6100-33	FS126	Solid	02/01/24 14:37	02/02/24 10:23	2'
890-6100-34	FS127	Solid	02/01/24 14:38	02/02/24 10:23	2'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody

HOUSTON, TX (281) 240-4200, DALLAS, TX (214) 997-0300
 AUSTIN, TX (432) 704-5440, SAN ANTONIO, TX (214) 509-4344
 EL PASO, TX (915) 585-3443, COLUMBIA, TX (806) 794-1296
 HOUSTON, TX (281) 292-7350, CARROLLTON, TX (972) 982-5199

Work Order No:

6100

814

Work Order Comments

Program: UST/PST PPP Brownfields RBC Superfund

State of Project: Level II Level III Level IV

Reporting: Level II Level III Level IV

Deliverables: EDD ADAPT Other:

Company Name: **Tacama Memissey**

Address: **3122 National Parks Hwy**

City, State ZIP: **Galveston, TX 77550**

Phone: **337-757-8507**

Email: **tmemissey**

Project Name: **Desert Eagle Frac Line (dots) Turn Around**

Project Number: **03C2884002**

Project Location: **32,597 Dr., 104, 120th**

Sampler's Name: **Mario Samis**

Turn Around: Routine Flush

Due Date: **5-DAY**

TAT starts the day received by the lab, if received by 4:00pm

SAMPLE RECEIPT	Blank		Matrix		Temperature		Time		Date	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Preservative Codes
	Yes	No	Yes	No	Yes	No	Yes	No								
FS04A																
FS113																
FS114																
FS115																
FS116																
FS117																
FS118																
FS105																
FS106																
FS107																

Total: 200.7 / 6010 200.8 / 6020: 8RCRA, 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed: TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245:1 / 7470 / 7471

Relinquished by: (Signature) **Burns** Date/Time: **6/24/24 16:20**

Relinquished by: (Signature) _____ Date/Time: _____

Relinquished by: (Signature) _____ Date/Time: _____

Received by: (Signature) _____ Date/Time: _____

Received by: (Signature) _____ Date/Time: _____

www.eurofins.com



Chain of Custody

Neutova TX (281) 240-4200, Dallas, TX (214) 967-0900
 Muscadet TX (409) 204-5440, San Antonio, TX (210) 509-3334
 El Paso TX (915) 889-3443, Lubbock TX (806) 794-7296
 Houston TX (281) 282-7450, Carrollton TX (972) 988-5199

Work Order No:

Environmental Form 100

eurolins

Page 2 of 24

Project Manager: **Tacoma Moffissey**
 Company Name: **EnsoLUM, LLC**
 Address: **3222 National Parks Hwy**
 City/State ZIP: **Las Alamos, NM 88120**
 Phone: **505-757-8307**

Bill to: (if different)
 Company Name:
 Address:
 City/State ZIP:

Enail: **T.Moffissey@ensoLUM.COM**

Work Order Comments:
 Program: UST/PST PAF Brownfields RBC Superfund
 State of Project:
 Reporting: Level II Level III PS/UST TRIP Level IV
 Deliverables: EDD ADAPT Other:

Project Name: **Desert Eagle Coal Line / IED Turn Around**
 Project Number: **6362884003**
 Project Location: **32.59779704, 120.48**
 Sampler's Name: **Mario Sobhis**
 PO #:

Due Date: **5-14-24**
 TAT starts the day received by the lab, if received by 4:30pm

Wet Ice: Yes No
 Thermometer ID: **TAM001**
 Correction Factor: **0.02**
 Temperature Reading: **0.02**
 Connected Temperature: **0.02**

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Emb. Comp.	# of Corr.	Parameters		Preservative Codes
							Yes	No	
F5109	S	2/1/24	0905	1'	C	1	✓	✓	H ₂ O
F5109	S	2/1/24	0906	1'	C	1	✓	✓	MeOH, Me
F5110	S	2/1/24	0907	1'	C	1	✓	✓	HNO ₃ , HCl
F5111	S	2/1/24	0908	1'	C	1	✓	✓	H ₂ SO ₄ , H ₂ O
F5112	S	2/1/24	0910	1'	C	1	✓	✓	H ₂ PO ₄ , H ₂ O
F5007	S	2/1/24	1152	2'	C	1	✓	✓	NaHSO ₄ , NaOH
F5016	S	2/1/24	1155	2'	C	1	✓	✓	Na ₂ SO ₄ , NaOH
F5018	S	2/1/24	1156	2'	C	1	✓	✓	Zn Acetate-HOAc-Zn
F5019	S	2/1/24	1158	2'	C	1	✓	✓	NaOH-Azoboric Acid-SAPC
F5021	S	2/1/24	1159	2'	C	1	✓	✓	

Total 2007/6010 200.B/6020: **BRCRA 13PPM, Texas 11 Al Sb As Ba Be Cd Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn**
 Circle Method(s) and Meta(l)s to be analyzed: **TCLP/SPLP 6010 : BRCPA Sr As Ba Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631/245.1/7470 /7471**

Notice: Signatures of this document and relinquishment of samples constitutes a valid purchase order from client/company to Eurofins Xcelco, its affiliates and subcontractors. It is the responsibility of the client to ensure that all samples are properly labeled and that all necessary information is provided to the laboratory. The client is responsible for any fees or expenses incurred by the client if such fees are due to discrepancies beyond the control of Eurofins Xcelco. A minimum charge of \$65.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xcelco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature) **[Signature]** Date/Time **2/1/24 16:30**
 Received by: (Signature) **[Signature]** Date/Time **2/1/24 16:30**



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 962-0200
Midland, TX (432) 796-5400, San Antonio, TX (210) 595-3334
El Paso, TX (915) 535-3443, Lubbock, TX (800) 946-1299
Hooper, NM (505) 392-7556, Carlsbad, NM (525) 908-1159

Work Order No: _____

Page 3 of 14



Customer Agreement (4-14-14)
K-1104

Work Order Comments

Program: US/PST PMP Brownfields RRC Superfund

State of Project: _____

Reporting: Level II Level III PST/UST TIRP Level IV

Deliverables: EDO AD&PT Other: _____

Project Manager: **Talome Morrissy**

Company Name: **ENSOLUM, LLC**

Address: **3122 E National Bldg Hwy**

City, State ZIP: **Carlsbad, NM 88220**

Phone: **337-757-8307** Email: **T.Morrissy@ensolum.com**

Bill to: If different: _____

Company Name: _____

Address: _____

City, State ZIP: _____

Project Name:	Project Number:	Project Location:	Sample's Name:	PG #:	Equip Blank:		Thermometer ID:		Temperature Reading:	Connected Temperature:	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont.	Preservative Codes	Sample Comments
					Yes	No	Yes	No									
Desert Eagle Focal Line Caprium Around																	
03C2884007																	
32,59779, -104,12048																	
Mario Serrano																	
SAMPLE RECEIPT Samples Received In tact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Capcins Outside Seals: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Sample Custody Seals: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Total Containers: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																	
TAI starts the day received by the lab, if received by 4:30pm Due Date: 5-day Wet loc: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Rinse: <input type="checkbox"/> Flush <input type="checkbox"/> No Rinse Thermometer ID: 110007 Connection Factor: -0.2 Temperature Reading: 0 Connected Temperature: -0.2																	
Total Containers: _____ Date Sampled: _____ Time Sampled: _____ Depth: _____ Grab/Comp: _____ # of Cont.: _____ Preservative Codes: _____ Sample Comments: _____																	
F5082 F5069 F5064 F5071 F5073 F5079 F5080 F5081 F5082 F5083																	

Total: 200.7 / 6010 200.8 / 6020: 3RCRA, 13PPM Texas 11 Al Sb As Ba Be Cd Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed: BRCRA, Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Note: Signature of this document and re-shipment of samples constitutes a valid purchase order from client company to Eurofins Xeno, or affiliates and subcontractors. It assigns liability for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature) *[Signature]* Date/Time: 16/2/2017 4:16:30

Received by: (Signature) _____ Date/Time: _____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
 El Paso, TX (915) 555-9448, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 393-7550, Carlsbad, NM (505) 948-3192

Work Order No:

Page: 4 of 4

Program: UST/PST PBP Brownfields RRC Superfund
 State of Project: Level II Level III Level IV
 Reporting: Level II Level III Level IV
 Deliverables: EDO ADAPT Other:

Project Manager: **TACOMA Matt:sey** Bill to: (if different)
 Company Name: **ENSOLUM, LLC** Company Name:
 Address: **3122 National Parks Hwy** Address:
 City/State ZIP: **Las Alamos, NM 88120** City/State ZIP:
 Phone: **505-757-8307** Email: **tmatt:sey@ensolum.com**

Project Name: **Digest Eagle Fuel Line (2007) Turn Around**
 Project Number: **OSL 288400**
 Project Location: **32,59779, -104,12018** Due Date: **5-DAY**
 Sampler's Name: **MALIND JARVIS** TAT starts the day received by the lab, if received by 4:30pm
 P.O. #:

SAMPLE RECEIPT
 Samples Received Intact: Yes No
 Color Custody Seals: Yes No
 Sample Custody Seals: Yes No
 Total Containers: **0.2**

WETTER: YES NO
 Thermometer ID: **111007**
 Correction Factor: **0.2**
 Temperature Reading:
 Connected Temperature: **0.2**

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Emb. Comp.	# of Cont.	Preservative Codes
FS123	S	2/1/24	1434	2'	C	1	DI Water: H ₂ O Cook: Cool HCL: HCl H ₂ SO ₄ : H ₂ H ₂ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ SO ₄ : NASO Zn Acetate: NaOH: Zn NaOH: Ascorbic Acid: SAPC
FS124	S	2/1/24	1435	2'	C	1	
FS125	S	2/1/24	1436	2'	C	1	
FS126	S	2/1/24	1437	2'	C	1	
FS127	S	2/1/24	1438	2'	C	1	

Total: 200.7 / 6010 200.6 / 6020: BRCA, 13PPM, Texas 11 Al Sb As Ba Be B Cd Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP/SPLP 6010: BRCA, Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631/245.1/7470/7471

Notice: Signature of this document and management of samples constitutes a valid purchase order from client company to Eurofins Mexico, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Mexico 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 Mexico. A minimum charge of \$15.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Mexico, but not analyzed. These terms will be enforced unless previously negotiated.

Received by: (Signature) **Burns** Date/Time: **2/1/24 16:30**
 Received by: (Signature) _____ Date/Time: _____
 Received by: (Signature) _____ Date/Time: _____

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6100-1
SDG Number: 03C2884002

Login Number: 6100
List Number: 1
Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6100-1
SDG Number: 03C2884002

Login Number: 6100
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 02/05/24 08:29 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	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 2/9/2024 9:53:27 AM

JOB DESCRIPTION

Desert Eagle Frac Line (200)
03C2884002

JOB NUMBER

890-6101-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



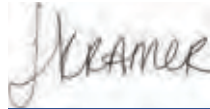
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
2/9/2024 9:53:27 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Laboratory Job ID: 890-6101-1
SDG: 03C2884002

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	9
QC Sample Results	10
QC Association Summary	14
Lab Chronicle	16
Certification Summary	17
Method Summary	18
Sample Summary	19
Chain of Custody	20
Receipt Checklists	21

Definitions/Glossary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, 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: Desert Eagle Frac Line (200)

Job ID: 890-6101-1

Job ID: 890-6101-1

Eurofins Carlsbad

Job Narrative 890-6101-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/1/2024 4:20 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 -0.2°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS 065 (890-6101-1), FS 121 (890-6101-2) and FS 117 (890-6101-3).

GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-72659 and analytical batch 880-72586 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-72383 and analytical batch 880-72441 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS 121 (890-6101-2) and (890-6101-A-1-G MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-72383 and analytical batch 880-72441 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

Client Sample ID: FS 065

Lab Sample ID: 890-6101-1

Date Collected: 02/01/24 12:01

Matrix: Solid

Date Received: 02/01/24 16:20

Sample Depth: 2'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *-	0.00199	mg/Kg		02/08/24 13:05	02/08/24 22:51	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/08/24 13:05	02/08/24 22:51	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/08/24 13:05	02/08/24 22:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/08/24 13:05	02/08/24 22:51	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/08/24 13:05	02/08/24 22:51	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/08/24 13:05	02/08/24 22:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	02/08/24 13:05	02/08/24 22:51	1
1,4-Difluorobenzene (Surr)	100		70 - 130	02/08/24 13:05	02/08/24 22:51	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/08/24 22:51	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			02/06/24 09:49	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/05/24 13:43	02/06/24 09:49	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/05/24 13:43	02/06/24 09:49	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/05/24 13:43	02/06/24 09:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	02/05/24 13:43	02/06/24 09:49	1
o-Terphenyl	93		70 - 130	02/05/24 13:43	02/06/24 09:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	988		25.0	mg/Kg			02/05/24 12:53	5

Client Sample ID: FS 121

Lab Sample ID: 890-6101-2

Date Collected: 02/01/24 09:26

Matrix: Solid

Date Received: 02/01/24 16:20

Sample Depth: 1'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *-	0.00198	mg/Kg		02/08/24 13:05	02/08/24 16:35	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 16:35	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 16:35	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/08/24 13:05	02/08/24 16:35	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/08/24 13:05	02/08/24 16:35	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/08/24 13:05	02/08/24 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130	02/08/24 13:05	02/08/24 16:35	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

Client Sample ID: FS 121

Lab Sample ID: 890-6101-2

Date Collected: 02/01/24 09:26

Matrix: Solid

Date Received: 02/01/24 16:20

Sample Depth: 1'

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	02/08/24 13:05	02/08/24 16:35	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/08/24 16:35	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/06/24 10:58	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/05/24 13:43	02/06/24 10:58	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/05/24 13:43	02/06/24 10:58	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/05/24 13:43	02/06/24 10:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	02/05/24 13:43	02/06/24 10:58	1
o-Terphenyl	116		70 - 130	02/05/24 13:43	02/06/24 10:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	771		25.0	mg/Kg			02/05/24 13:08	5

Client Sample ID: FS 117

Lab Sample ID: 890-6101-3

Date Collected: 02/01/24 09:17

Matrix: Solid

Date Received: 02/01/24 16:20

Sample Depth: 1'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *	0.00201	mg/Kg		02/08/24 13:05	02/08/24 16:55	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/08/24 13:05	02/08/24 16:55	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/08/24 13:05	02/08/24 16:55	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/08/24 13:05	02/08/24 16:55	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/08/24 13:05	02/08/24 16:55	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/08/24 13:05	02/08/24 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	02/08/24 13:05	02/08/24 16:55	1
1,4-Difluorobenzene (Surr)	101		70 - 130	02/08/24 13:05	02/08/24 16:55	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/08/24 16:55	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/06/24 11:21	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

Client Sample ID: FS 117

Lab Sample ID: 890-6101-3

Date Collected: 02/01/24 09:17

Matrix: Solid

Date Received: 02/01/24 16:20

Sample Depth: 1'

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/05/24 13:43	02/06/24 11:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/05/24 13:43	02/06/24 11:21	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/05/24 13:43	02/06/24 11:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	02/05/24 13:43	02/06/24 11:21	1
o-Terphenyl	100		70 - 130	02/05/24 13:43	02/06/24 11:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	991		24.8	mg/Kg			02/05/24 13:13	5

Surrogate Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-39111-A-1-D MS	Matrix Spike	110	100
880-39111-A-1-E MSD	Matrix Spike Duplicate	104	96
890-6101-1	FS 065	114	100
890-6101-2	FS 121	118	98
890-6101-3	FS 117	123	101
LCS 880-72659/1-A	Lab Control Sample	101	100
LCSD 880-72659/2-A	Lab Control Sample Dup	100	92
MB 880-72659/5-A	Method Blank	119	113

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-6101-1	FS 065	110	93
890-6101-1 MS	FS 065	138 S1+	105
890-6101-1 MSD	FS 065	130	96
890-6101-2	FS 121	136 S1+	116
890-6101-3	FS 117	118	100
LCS 880-72383/2-A	Lab Control Sample	89	87
LCSD 880-72383/3-A	Lab Control Sample Dup	94	89
MB 880-72383/1-A	Method Blank	169 S1+	146 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72659/5-A
 Matrix: Solid
 Analysis Batch: 72586

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 72659

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/08/24 13:05	02/08/24 14:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/08/24 13:05	02/08/24 14:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	02/08/24 13:05	02/08/24 14:24	1
1,4-Difluorobenzene (Surr)	113		70 - 130	02/08/24 13:05	02/08/24 14:24	1

Lab Sample ID: LCS 880-72659/1-A
 Matrix: Solid
 Analysis Batch: 72586

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 72659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.06529	*-	mg/Kg		65	70 - 130
Toluene	0.100	0.07720		mg/Kg		77	70 - 130
Ethylbenzene	0.100	0.07542		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	0.200	0.1441		mg/Kg		72	70 - 130
o-Xylene	0.100	0.07388		mg/Kg		74	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-72659/2-A
 Matrix: Solid
 Analysis Batch: 72586

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 72659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.08369		mg/Kg		84	70 - 130	25	35
Toluene	0.100	0.08169		mg/Kg		82	70 - 130	6	35
Ethylbenzene	0.100	0.09071		mg/Kg		91	70 - 130	18	35
m-Xylene & p-Xylene	0.200	0.1671		mg/Kg		84	70 - 130	15	35
o-Xylene	0.100	0.08345		mg/Kg		83	70 - 130	12	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 880-39111-A-1-D MS
 Matrix: Solid
 Analysis Batch: 72586

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 72659

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U *-	0.0996	0.09449		mg/Kg		95	70 - 130
Toluene	<0.00200	U	0.0996	0.09445		mg/Kg		95	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
SDG: 03C2884002

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-39111-A-1-D MS
Matrix: Solid
Analysis Batch: 72586

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 72659

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00200	U	0.0996	0.1166		mg/Kg		117	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2202		mg/Kg		111	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1041		mg/Kg		104	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-39111-A-1-E MSD
Matrix: Solid
Analysis Batch: 72586

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 72659

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00200	U *-	0.101	0.09670		mg/Kg		96	70 - 130	2	35
Toluene	<0.00200	U	0.101	0.09657		mg/Kg		96	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.101	0.1061		mg/Kg		105	70 - 130	9	35
m-Xylene & p-Xylene	<0.00399	U	0.202	0.2048		mg/Kg		102	70 - 130	7	35
o-Xylene	<0.00200	U	0.101	0.09899		mg/Kg		98	70 - 130	5	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-72383/1-A
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72383

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/05/24 13:43	02/06/24 07:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/05/24 13:43	02/06/24 07:13	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/05/24 13:43	02/06/24 07:13	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	169	S1+	70 - 130	02/05/24 13:43	02/06/24 07:13	1
o-Terphenyl	146	S1+	70 - 130	02/05/24 13:43	02/06/24 07:13	1

Lab Sample ID: LCS 880-72383/2-A
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72383

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	1004		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	885.4		mg/Kg		89	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-72383/2-A
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72383

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	89		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: LCSD 880-72383/3-A
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72383

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	998.8		mg/Kg		100	70 - 130	1		20
Diesel Range Organics (Over C10-C28)	1000	877.0		mg/Kg		88	70 - 130	1		20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	94		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 890-6101-1 MS
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: FS 065
Prep Type: Total/NA
Prep Batch: 72383

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	RPD
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	937.7		mg/Kg		89	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	1153		mg/Kg		114	70 - 130	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	138	S1+	70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-6101-1 MSD
Matrix: Solid
Analysis Batch: 72441

Client Sample ID: FS 065
Prep Type: Total/NA
Prep Batch: 72383

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	900.8		mg/Kg		86	70 - 130	4		20
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	1078		mg/Kg		107	70 - 130	7		20

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	130		70 - 130
o-Terphenyl	96		70 - 130

QC Sample Results

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-72302/1-A
 Matrix: Solid
 Analysis Batch: 72360

Client Sample ID: Method Blank
 Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/05/24 12:39	1

Lab Sample ID: LCS 880-72302/2-A
 Matrix: Solid
 Analysis Batch: 72360

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	242.1		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-72302/3-A
 Matrix: Solid
 Analysis Batch: 72360

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	243.3		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-6101-1 MS
 Matrix: Solid
 Analysis Batch: 72360

Client Sample ID: FS 065
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	988		1250	2184		mg/Kg		96	90 - 110

Lab Sample ID: 890-6101-1 MSD
 Matrix: Solid
 Analysis Batch: 72360

Client Sample ID: FS 065
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	988		1250	2198		mg/Kg		97	90 - 110	1	20

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

GC VOA

Analysis Batch: 72586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6101-1	FS 065	Total/NA	Solid	8021B	72659
890-6101-2	FS 121	Total/NA	Solid	8021B	72659
890-6101-3	FS 117	Total/NA	Solid	8021B	72659
MB 880-72659/5-A	Method Blank	Total/NA	Solid	8021B	72659
LCS 880-72659/1-A	Lab Control Sample	Total/NA	Solid	8021B	72659
LCSD 880-72659/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72659
880-39111-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	72659
880-39111-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	72659

Prep Batch: 72659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6101-1	FS 065	Total/NA	Solid	5035	
890-6101-2	FS 121	Total/NA	Solid	5035	
890-6101-3	FS 117	Total/NA	Solid	5035	
MB 880-72659/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-72659/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-72659/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39111-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-39111-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 72715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6101-1	FS 065	Total/NA	Solid	Total BTEX	
890-6101-2	FS 121	Total/NA	Solid	Total BTEX	
890-6101-3	FS 117	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 72383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6101-1	FS 065	Total/NA	Solid	8015NM Prep	
890-6101-2	FS 121	Total/NA	Solid	8015NM Prep	
890-6101-3	FS 117	Total/NA	Solid	8015NM Prep	
MB 880-72383/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-72383/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-72383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6101-1 MS	FS 065	Total/NA	Solid	8015NM Prep	
890-6101-1 MSD	FS 065	Total/NA	Solid	8015NM Prep	

Analysis Batch: 72441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6101-1	FS 065	Total/NA	Solid	8015B NM	72383
890-6101-2	FS 121	Total/NA	Solid	8015B NM	72383
890-6101-3	FS 117	Total/NA	Solid	8015B NM	72383
MB 880-72383/1-A	Method Blank	Total/NA	Solid	8015B NM	72383
LCS 880-72383/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	72383
LCSD 880-72383/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	72383
890-6101-1 MS	FS 065	Total/NA	Solid	8015B NM	72383
890-6101-1 MSD	FS 065	Total/NA	Solid	8015B NM	72383

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

GC Semi VOA

Analysis Batch: 72574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6101-1	FS 065	Total/NA	Solid	8015 NM	
890-6101-2	FS 121	Total/NA	Solid	8015 NM	
890-6101-3	FS 117	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 72302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6101-1	FS 065	Soluble	Solid	DI Leach	
890-6101-2	FS 121	Soluble	Solid	DI Leach	
890-6101-3	FS 117	Soluble	Solid	DI Leach	
MB 880-72302/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-72302/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-72302/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6101-1 MS	FS 065	Soluble	Solid	DI Leach	
890-6101-1 MSD	FS 065	Soluble	Solid	DI Leach	

Analysis Batch: 72360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6101-1	FS 065	Soluble	Solid	300.0	72302
890-6101-2	FS 121	Soluble	Solid	300.0	72302
890-6101-3	FS 117	Soluble	Solid	300.0	72302
MB 880-72302/1-A	Method Blank	Soluble	Solid	300.0	72302
LCS 880-72302/2-A	Lab Control Sample	Soluble	Solid	300.0	72302
LCSD 880-72302/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	72302
890-6101-1 MS	FS 065	Soluble	Solid	300.0	72302
890-6101-1 MSD	FS 065	Soluble	Solid	300.0	72302

Lab Chronicle

Client: Ensolum
 Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
 SDG: 03C2884002

Client Sample ID: FS 065

Lab Sample ID: 890-6101-1

Date Collected: 02/01/24 12:01

Matrix: Solid

Date Received: 02/01/24 16:20

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	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 22:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72715	02/08/24 22:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			72574	02/06/24 09:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	72383	02/05/24 13:43	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72441	02/06/24 09:49	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	72302	02/04/24 12:34	CH	EET MID
Soluble	Analysis	300.0		5			72360	02/05/24 12:53	CH	EET MID

Client Sample ID: FS 121

Lab Sample ID: 890-6101-2

Date Collected: 02/01/24 09:26

Matrix: Solid

Date Received: 02/01/24 16:20

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	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 16:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72715	02/08/24 16:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			72574	02/06/24 10:58	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	72383	02/05/24 13:43	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72441	02/06/24 10:58	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	72302	02/04/24 12:34	CH	EET MID
Soluble	Analysis	300.0		5			72360	02/05/24 13:08	CH	EET MID

Client Sample ID: FS 117

Lab Sample ID: 890-6101-3

Date Collected: 02/01/24 09:17

Matrix: Solid

Date Received: 02/01/24 16:20

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	72659	02/08/24 13:05	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72586	02/08/24 16:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72715	02/08/24 16:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			72574	02/06/24 11:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	72383	02/05/24 13:43	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	72441	02/06/24 11:21	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	72302	02/04/24 12:34	CH	EET MID
Soluble	Analysis	300.0		5			72360	02/05/24 13:13	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
SDG: 03C2884002

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	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
SDG: 03C2884002

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Sample Summary

Client: Ensolum
Project/Site: Desert Eagle Frac Line (200)

Job ID: 890-6101-1
SDG: 03C2884002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6101-1	FS 065	Solid	02/01/24 12:01	02/01/24 16:20	2'
890-6101-2	FS 121	Solid	02/01/24 09:26	02/01/24 16:20	1'
890-6101-3	FS 117	Solid	02/01/24 09:17	02/01/24 16:20	1'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0200
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 796-1296
Hobbs, NM (575) 343-7550, Garland, NM (575) 588-3199

Work Order No:

6101

www.eurofins.com Page 1 of 1

Work Order Comments

Program: MST/PST PRP Brownfields RRC Superfund

State of Project: Reporting: Level II Level III Level IV TRRP Level V

Deliverables: EDO ADAPT Other:

Project Manager: **Jacoma Morrissey**

Company Name: **EHSolum, LLC**

Address: **3122 N. Fossil Road, H.Wy**

City, State ZIP: **Carlsbad, NM 88220**

Phone: **337-755-8307** Email: **JMorrissey@EHSolum.com**

Bill to: (if different) Company Name: Address: City, State ZIP: Email:

Project Name: **Desert Eagle Facility, NE 42nd Turn Around**

Project Number: **0X2884007**

Project Location: **32.57774, -104.12048**

Sampler's Name: **Mario Salkis**

P.O. #:

Due Date: **24-hr**

TAT starts the day received by the lab. If received by 4:30pm

Wet Ice: Yes No

Thermometer ID: **TANCOOT**

Correction Factor: **0.2**

Temperature Reading: **0**

Corrected Temperature: **0.2**

SAMPLE RECEIPT

Samples Received Intact: Yes No

Cooler Custody Seals: Yes No N/A

Sample Custody Seals: Yes No N/A

Total Containers: **3**

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grain Comp	# of Cont
F5065	S	2/18/24	12:01	2	C	1
F5121	S	2/28/24	09:26	1	C	1
F5117	S	2/14/20	09:17	1	C	1

Preservative Codes: Name: NO DI Water, H₂O
Code: COH MeOH: Me
HCL: HE HNO₃: HN
H₂SO₄: HS H₂PO₄: HP
NaHSO₄: NABS Na₂S₂O₈: NASO
Zn Acetate: HNAOH, Zn NSOH: Auroboric Acid: SAAC

Sample Comments: **TRH**
BTEX
Chlorides

Total 200.7 / 6010 300.8 / 6020: 8RCRA 13PPM Texas TI AI Sb As Bb Be B Cd Cr Co Cu Fe Fb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed: TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hgr 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature) **[Signature]** Date/Time: **2/11/24 16:20**

Relinquished by: (Signature) **[Signature]** Date/Time: **2/11/24 16:20**



Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6101-1

SDG Number: 03C2884002

Login Number: 6101

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6101-1

SDG Number: 03C2884002

Login Number: 6101

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 02/05/24 08:29 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	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 5/2/2024 12:58:48 PM

JOB DESCRIPTION

DESERT EAGLE FRAC LINE
 03C22894002

JOB NUMBER

890-6565-1

Eurofins Carlsbad
 1089 N Canal St.
 Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
5/2/2024 12:58:48 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client: Ensolum
Project/Site: DESERT EAGLE FRAC LINE

Laboratory Job ID: 890-6565-1
SDG: 03C22894002

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

Definitions/Glossary

Client: Ensolum
Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
SDG: 03C22894002

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1

Job ID: 890-6565-1

Eurofins Carlsbad

Job Narrative 890-6565-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 4/30/2024 8:05 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SS 01 (890-6565-1).

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-79734 and analytical batch 880-79708 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-79761 and 880-79761 and analytical batch 880-79793 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

SS 01 (890-6565-1), (880-42934-A-11-A), (880-42934-A-11-B MS) and (880-42934-A-11-C MSD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
 SDG: 03C22894002

Client Sample ID: SS 01

Lab Sample ID: 890-6565-1

Date Collected: 04/29/24 15:50

Matrix: Solid

Date Received: 04/30/24 08:05

Sample Depth: 0.5'

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/01/24 09:20	05/01/24 16:41	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/01/24 09:20	05/01/24 16:41	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/01/24 09:20	05/01/24 16:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/01/24 09:20	05/01/24 16:41	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/01/24 09:20	05/01/24 16:41	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/01/24 09:20	05/01/24 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	05/01/24 09:20	05/01/24 16:41	1
1,4-Difluorobenzene (Surr)	93		70 - 130	05/01/24 09:20	05/01/24 16:41	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/01/24 16:41	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/01/24 11:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		05/01/24 10:03	05/01/24 11:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/01/24 10:03	05/01/24 11:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/01/24 10:03	05/01/24 11:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	05/01/24 10:03	05/01/24 11:08	1
o-Terphenyl	101		70 - 130	05/01/24 10:03	05/01/24 11:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	190		50.3	mg/Kg			05/02/24 08:53	10

Surrogate Summary

Client: Ensolum
 Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
 SDG: 03C22894002

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)
880-42905-A-1-E MS	Matrix Spike	116	92
880-42905-A-1-F MSD	Matrix Spike Duplicate	115	100
890-6565-1	SS 01	119	93
LCS 880-79722/1-A	Lab Control Sample	113	100
LCSD 880-79722/2-A	Lab Control Sample Dup	115	102
MB 880-79722/5-A	Method Blank	114	89

Surrogate Legend
 BFB = 4-Bromofluorobenzene (Surr)
 DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-6565-1	SS 01	118	101
890-6565-1 MS	SS 01	119	97
890-6565-1 MSD	SS 01	126	98
LCS 880-79734/2-A	Lab Control Sample	124	128
LCSD 880-79734/3-A	Lab Control Sample Dup	103	109
MB 880-79734/1-A	Method Blank	104	93

Surrogate Legend
 1CO = 1-Chlorooctane
 OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
 SDG: 03C22894002

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-79722/5-A
 Matrix: Solid
 Analysis Batch: 79715

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 79722

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/01/24 09:20	05/01/24 11:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/01/24 09:20	05/01/24 11:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/01/24 09:20	05/01/24 11:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/01/24 09:20	05/01/24 11:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/01/24 09:20	05/01/24 11:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/01/24 09:20	05/01/24 11:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	05/01/24 09:20	05/01/24 11:16	1
1,4-Difluorobenzene (Surr)	89		70 - 130	05/01/24 09:20	05/01/24 11:16	1

Lab Sample ID: LCS 880-79722/1-A
 Matrix: Solid
 Analysis Batch: 79715

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 79722

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1025		mg/Kg		102	70 - 130
Toluene	0.100	0.1005		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1015		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2084		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1039		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-79722/2-A
 Matrix: Solid
 Analysis Batch: 79715

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 79722

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1102		mg/Kg		110	70 - 130	7	35
Toluene	0.100	0.1086		mg/Kg		109	70 - 130	8	35
Ethylbenzene	0.100	0.1101		mg/Kg		110	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2240		mg/Kg		112	70 - 130	7	35
o-Xylene	0.100	0.1116		mg/Kg		112	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-42905-A-1-E MS
 Matrix: Solid
 Analysis Batch: 79715

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 79722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.100	0.09878		mg/Kg		99	70 - 130
Toluene	<0.00201	U	0.100	0.09713		mg/Kg		96	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
SDG: 03C22894002

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-42905-A-1-E MS
Matrix: Solid
Analysis Batch: 79715

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 79722

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier		Result	Qualifier				
Ethylbenzene	<0.00201	U	0.100	0.09403		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1987		mg/Kg		99	70 - 130
o-Xylene	<0.00201	U	0.100	0.1010		mg/Kg		101	70 - 130

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 880-42905-A-1-F MSD
Matrix: Solid
Analysis Batch: 79715

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 79722

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	<0.00201	U	0.100	0.1056		mg/Kg		106	70 - 130	7	35
Toluene	<0.00201	U	0.100	0.1037		mg/Kg		102	70 - 130	7	35
Ethylbenzene	<0.00201	U	0.100	0.1028		mg/Kg		103	70 - 130	9	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2104		mg/Kg		105	70 - 130	6	35
o-Xylene	<0.00201	U	0.100	0.1050		mg/Kg		105	70 - 130	4	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-79734/1-A
Matrix: Solid
Analysis Batch: 79708

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 79734

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/01/24 08:03	05/01/24 08:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/01/24 08:03	05/01/24 08:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/01/24 08:03	05/01/24 08:41	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	104		70 - 130	05/01/24 08:03	05/01/24 08:41	1
o-Terphenyl	93		70 - 130	05/01/24 08:03	05/01/24 08:41	1

Lab Sample ID: LCS 880-79734/2-A
Matrix: Solid
Analysis Batch: 79708

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 79734

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Gasoline Range Organics (GRO)-C6-C10	1000	970.1		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	955.4		mg/Kg		96	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
SDG: 03C22894002

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-79734/2-A
Matrix: Solid
Analysis Batch: 79708

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 79734

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	124		70 - 130
o-Terphenyl	128		70 - 130

Lab Sample ID: LCSD 880-79734/3-A
Matrix: Solid
Analysis Batch: 79708

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 79734

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec		RPD	Limit
		Result	Qualifier				Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	989.1		mg/Kg		99	70 - 130	2	20	
Diesel Range Organics (Over C10-C28)	1000	968.1		mg/Kg		97	70 - 130	1	20	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	103		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 890-6565-1 MS
Matrix: Solid
Analysis Batch: 79708

Client Sample ID: SS 01
Prep Type: Total/NA
Prep Batch: 79734

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	RPD
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1158		mg/Kg		116	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U	997	935.3		mg/Kg		90	70 - 130	

Surrogate	MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	119		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: 890-6565-1 MSD
Matrix: Solid
Analysis Batch: 79708

Client Sample ID: SS 01
Prep Type: Total/NA
Prep Batch: 79734

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	RPD
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1239		mg/Kg		124	70 - 130	7
Diesel Range Organics (Over C10-C28)	<49.9	U	997	989.3		mg/Kg		96	70 - 130	6

Surrogate	MSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	126		70 - 130
o-Terphenyl	98		70 - 130

QC Sample Results

Client: Ensolum
 Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
 SDG: 03C22894002

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-79761/1-A
 Matrix: Solid
 Analysis Batch: 79793

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			05/02/24 05:43	1

Lab Sample ID: LCS 880-79761/2-A
 Matrix: Solid
 Analysis Batch: 79793

Client Sample ID: Lab Control Sample
 Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	232.7		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-79761/3-A
 Matrix: Solid
 Analysis Batch: 79793

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	232.8		mg/Kg		93	90 - 110	0	20

Lab Sample ID: 880-42934-A-11-B MS
 Matrix: Solid
 Analysis Batch: 79793

Client Sample ID: Matrix Spike
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	2520	F1	1240	3586	F1	mg/Kg		86	90 - 110

Lab Sample ID: 880-42934-A-11-C MSD
 Matrix: Solid
 Analysis Batch: 79793

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2520	F1	1240	3586	F1	mg/Kg		86	90 - 110	0	20

QC Association Summary

Client: Ensolum
 Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
 SDG: 03C22894002

GC VOA

Analysis Batch: 79715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6565-1	SS 01	Total/NA	Solid	8021B	79722
MB 880-79722/5-A	Method Blank	Total/NA	Solid	8021B	79722
LCS 880-79722/1-A	Lab Control Sample	Total/NA	Solid	8021B	79722
LCSD 880-79722/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	79722
880-42905-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	79722
880-42905-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	79722

Prep Batch: 79722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6565-1	SS 01	Total/NA	Solid	5035	
MB 880-79722/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-79722/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-79722/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-42905-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-42905-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 79826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6565-1	SS 01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 79708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6565-1	SS 01	Total/NA	Solid	8015B NM	79734
MB 880-79734/1-A	Method Blank	Total/NA	Solid	8015B NM	79734
LCS 880-79734/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	79734
LCSD 880-79734/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	79734
890-6565-1 MS	SS 01	Total/NA	Solid	8015B NM	79734
890-6565-1 MSD	SS 01	Total/NA	Solid	8015B NM	79734

Prep Batch: 79734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6565-1	SS 01	Total/NA	Solid	8015NM Prep	
MB 880-79734/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-79734/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-79734/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6565-1 MS	SS 01	Total/NA	Solid	8015NM Prep	
890-6565-1 MSD	SS 01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 79864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6565-1	SS 01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 79761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6565-1	SS 01	Soluble	Solid	DI Leach	
MB 880-79761/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-79761/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-79761/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
SDG: 03C22894002

HPLC/IC (Continued)

Leach Batch: 79761 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42934-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-42934-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 79793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6565-1	SS 01	Soluble	Solid	300.0	79761
MB 880-79761/1-A	Method Blank	Soluble	Solid	300.0	79761
LCS 880-79761/2-A	Lab Control Sample	Soluble	Solid	300.0	79761
LCSD 880-79761/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	79761
880-42934-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	79761
880-42934-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	79761

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Lab Chronicle

Client: Ensolum
 Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
 SDG: 03C22894002

Client Sample ID: SS 01

Lab Sample ID: 890-6565-1

Date Collected: 04/29/24 15:50

Matrix: Solid

Date Received: 04/30/24 08:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	79722	05/01/24 09:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	79715	05/01/24 16:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			79826	05/01/24 16:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			79864	05/01/24 11:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	79734	05/01/24 10:03	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	79708	05/01/24 11:08	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	79761	05/01/24 13:23	SA	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	79793	05/02/24 08:53	SMC	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Accreditation/Certification Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
SDG: 03C22894002

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	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
SDG: 03C22894002

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Sample Summary

Client: Ensolum
Project/Site: DESERT EAGLE FRAC LINE

Job ID: 890-6565-1
SDG: 03C22894002

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6565-1	SS 01	Solid	04/29/24 15:50	04/30/24 08:05	0.5'

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214)
Midland, TX (432) 704-5440, San Antonio, TX (2
El Paso, TX (915) 585-3443, Lubbock, TX (806
Hobbs, NM (575) 392-7550, Carlsbad, NM (575)

Chain of Custody



890-6565 Chain of Custody

www.eurofins.com

Page 1 of 1

No: _____

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Ensolium, LLC
Company Name:	Ensolium LLC	Company Name:	Ensolium, LLC
Address:	3122 National Parks Hwy	Address:	601 N Maricopa Blvd
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Midland, TX 79701
Phone:	337-257-8307	Email:	tmorrissey@ensolium.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	Desert Eagle Frac Line	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03C2284002	Due Date:			
Project Location:	32.59779, -104.12049	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Uheil-Santillana	Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Coat Center #:		Thermometer ID:	Tanner		
SAMPLE RECEIPT		Correction Factor:	-0.2		
Samples Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading:	6.0		
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Temperature:	5.8		
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	Preservative Codes	Sample Comments
SS01	Soil	4/29/24	1550	0.5'	C	1	CHLORIDES (EPA: 300.0) TPH (8015) BTEX (8021)	None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₅ : Naso ₅ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC	Incident Number 0APP240222C359

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	4/30/2024			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6565-1
SDG Number: 03C22894002

Login Number: 6565

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-6565-1
SDG Number: 03C22894002

Login Number: 6565
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/01/24 09:41 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	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

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

QUESTIONS

Action 347654

QUESTIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2402226359
Incident Name	NAPP2402226359 DESERT EAGLE FRAC LINE @ 0
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received

Location of Release Source

Please answer all the questions in this group.

Site Name	DESERT EAGLE FRAC LINE
Date Release Discovered	01/09/2024
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Pipeline (Any) Produced Water Released: 189 BBL Recovered: 110 BBL Lost: 79 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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

QUESTIONS, Page 2

Action 347654

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 01/22/2024
--	---

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

QUESTIONS, Page 3

Action 347654

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Estimate or Other
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1000 (ft.) and ½ (mi.)
Any other fresh water well or spring	Between 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between ½ and 1 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	13700
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	186
GRO+DRO (EPA SW-846 Method 8015M)	50.5
BTEX (EPA SW-846 Method 8021B or 8260B)	0.3
Benzene (EPA SW-846 Method 8021B or 8260B)	0.1

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	01/25/2024
On what date will (or did) the final sampling or liner inspection occur	01/26/2024
On what date will (or was) the remediation complete(d)	02/22/2024
What is the estimated surface area (in square feet) that will be reclaimed	26831
What is the estimated volume (in cubic yards) that will be reclaimed	1300
What is the estimated surface area (in square feet) that will be remediated	26831
What is the estimated volume (in cubic yards) that will be remediated	1300

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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

QUESTIONS, Page 4

Action 347654

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 05/24/2024
--	---

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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

QUESTIONS, Page 5

Action 347654

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only

Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.

Requesting a deferral of the remediation closure due date with the approval of this submission	No
--	----

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

QUESTIONS, Page 6

Action 347654

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	336859
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	04/29/2024
What was the (estimated) number of samples that were to be gathered	5
What was the sampling surface area in square feet	32000

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	26831
What was the total volume (cubic yards) remediated	1300
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	26831
What was the total volume (in cubic yards) reclaimed	1300
Summarize any additional remediation activities not included by answers (above)	Please see attached remediation summary for complete details.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 05/24/2024
--	---

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

QUESTIONS, Page 7

Action 347654

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report

Only answer the questions in this group if all reclamation steps have been completed.

Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	26831
What was the total volume of replacement material (in cubic yards) for this site	1300

Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.

Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeded commence(d)	04/29/2050

Summarize any additional reclamation activities not included by answers (above)	Please see attached closure report for complete reclamation and revegetation plan.
---	--

The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeded plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Connor Walker Title: Senior Engineer Email: cwalker@mewbourne.com Date: 05/24/2024
--	---

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

QUESTIONS, Page 8

Action 347654

QUESTIONS (continued)

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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 347654

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 347654
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	5/24/2024