Form C-141
Page 6

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NAPP2228544134 |
| District RP | |
| Facility ID | |
| Application ID | |

# Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** ***Each of the following items must be included in the closure report.***

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Addison Guelker Title: Environmental Tech

Signature: Addison Guelker Date: 06/05/23

email: addisong@forl.com Telephone: 432-687-1777

**OCD Only**

Received by: Robert Hamlet Date: 10/31/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 10/31/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

CARMONA RESOURCES

# SITE INFORMATION

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**Closure Report**
**Shell Federal #2 SWD Disposal Line**
**Incident # NAPP2228544134**
**Eddy County, New Mexico**
**Unit A Sec 29 T20S R25E**
**32.551779°, -104.498698°**

**Produced Water Release**
**Point of Release: Corroded Disposal Line**
**Release Date: 10.04.22**
**Volume Released: 80 barrels of Produced Water**
**Volume Recovered: 0 barrels of Produced Water**

CARMONA RESOURCES

**Prepared for:**
**Fasken Oil and Ranch, Ltd**
**6101 Holiday Hill Road**
**Midland, TX 79707**

**Prepared by:**
**Carmona Resources, LLC**
**310 West Wall Street**
**Suite 500**
**Midland, Texas 79701**

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Midland TX, 79701
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CARMONA RESOURCES

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CARMONA RESOURCES

June 4, 2023

Mike Bratcher
District Supervisor
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

**Re: Closure Report**
**Shell Federal #2 SWD Disposal Line**
**Fasken Oil and Ranch, Ltd**
**Incident # NAPP2228544134**
**Site Location: Unit A, S29, T20S, R25E**
**(Lat 32.551779°, Long -104.498698°)**
**Eddy County, New Mexico**

Mr. Bratcher:

On behalf of Fasken Oil and Ranch, Ltd. (Fasken), Carmona Resources, LLC has prepared this letter to document site activities for the Shell Federal #2 SWD Disposal Line. The site is located at 32.551779°, -104.498698° within Unit A, S29, T20S, R25E, in Eddy County, New Mexico (Figures 1 and 2).

## 1.0 Site Information and Background

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the release was discovered on October 4, 2022, due to a corroded disposal line. It released approximately eighty (80) barrels of produced water, and zero (0) barrels were recovered. Refer to Figure 3. The initial C-141 form is attached in Appendix C.

On February 20, 2023, a 400 sq ft confirmation sampling variance was approved by the NMOCD. See Appendix C for the correspondence.

## 2.0 Site Characterization and Groundwater

The site is located within a high karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, there is one known water source within a 0.50-mile radius of the location. The well is located approximately 0.50 miles Northwest of the site in S20, T20S, R25E and was drilled in 2003. The well has a reported depth to groundwater of 218.03' below ground surface (ft bgs). A copy of the associated Point of Diversion Summary report is attached in Appendix D.

## 3.0 NMAC Regulatory Criteria

Per the NMOCD regulatory criteria established in 19.15.29.12 NMAC, the following criteria were utilized in assessing the site.

- Benzene: 10 milligrams per kilogram (mg/kg).

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- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 100 mg/kg (GRO + DRO + MRO).
- Chloride: 600 mg/kg.

## 4.0 Site Assessment Activities

Initial Assessment

On October 24, 2022, Carmona Resources, LLC performed site assessment activities to evaluate soil impacts from the release. Five (5) sample points and six (6) horizontal samples were advanced to depths ranging from the surface to 4' bgs inside and surrounding the release area to evaluate the vertical and horizontal extent. See Figure 3 for the sample locations. For chemical analysis, the soil samples were collected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins in Midland, Texas. The samples were analyzed for total petroleum hydrocarbons (TPH) by EPA method 8015, modified benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chloride by EPA method 300.0. The laboratory reports, including analytical methods, results, and chain-of-custody documents, are attached in Appendix E.

Vertical Delineation

Vertical delineation was achieved for the areas of S-1, S-3, and S-5 and was below the regulatory limits for benzene, total BTEX, TPH, and chloride concentrations. However, the areas of S-2 and S-4 vertical delineation was not achieved due to chloride concentration ranging from 1,160 mg/kg to 2,450 mg/kg. Refer to Table 1.

Horizontal Delineation

The areas of H-1 through H-6 were below the regulatory limits for benzene, total BTEX, TPH, and chloride concentrations. Refer to Table 1.

## 5.0 Remediation Activities

On January 23, 2023, Fasken personnel was on site to collect one (1) bottom hole sample (BH) and four (4) sidewall samples (SW-N, SW-S, SW-W, SW-E) in the excavated area. The sample locations are shown in Figure 4A. Refer to Table 2.

Carmona Resources personnel were onsite to supervise the remediation activities, collect confirmation samples, and document backfill activities. Before collecting composite confirmation samples, the NMOCD division office was notified via email on May 8, 2023, per Subsection D of 19.15.29.12 NMAC. See Appendix C. The area of S-1 was excavated to a depth of 1.5' below the surface, the area of S-2, S-4, and S-5 was excavated to a depth of 4.0' below the surface, and the area of S-3 was excavated to a depth of 3.0' below the surface to remove all the impacted soils. A total of eleven (11) floor confirmation samples were collected (CS-1 through CS-11), and nineteen (19) sidewall samples (SW-1 through SW-19) were collected every 400 square feet to ensure the proper removal of the contaminated soils. All collected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 4500.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. The excavation depths and confirmation sample locations are shown in Figure 4B.

All final confirmation samples were below the reclamation and regulatory requirements for TPH, BTEX, and chloride. Refer to Table 3.

Once the remediation activities were completed, the excavated areas were backfilled with clean material to surface grade. Approximately 810 cubic yards of material were excavated and transported offsite for proper disposal.

## 6.0 Conclusions

Based on the final laboratory data, it indicates that no further action is required at the site. If you have any questions regarding this report or need additional information, please contact us at 432-813-1992.

Sincerely,
**Carmona Resources, LLC**

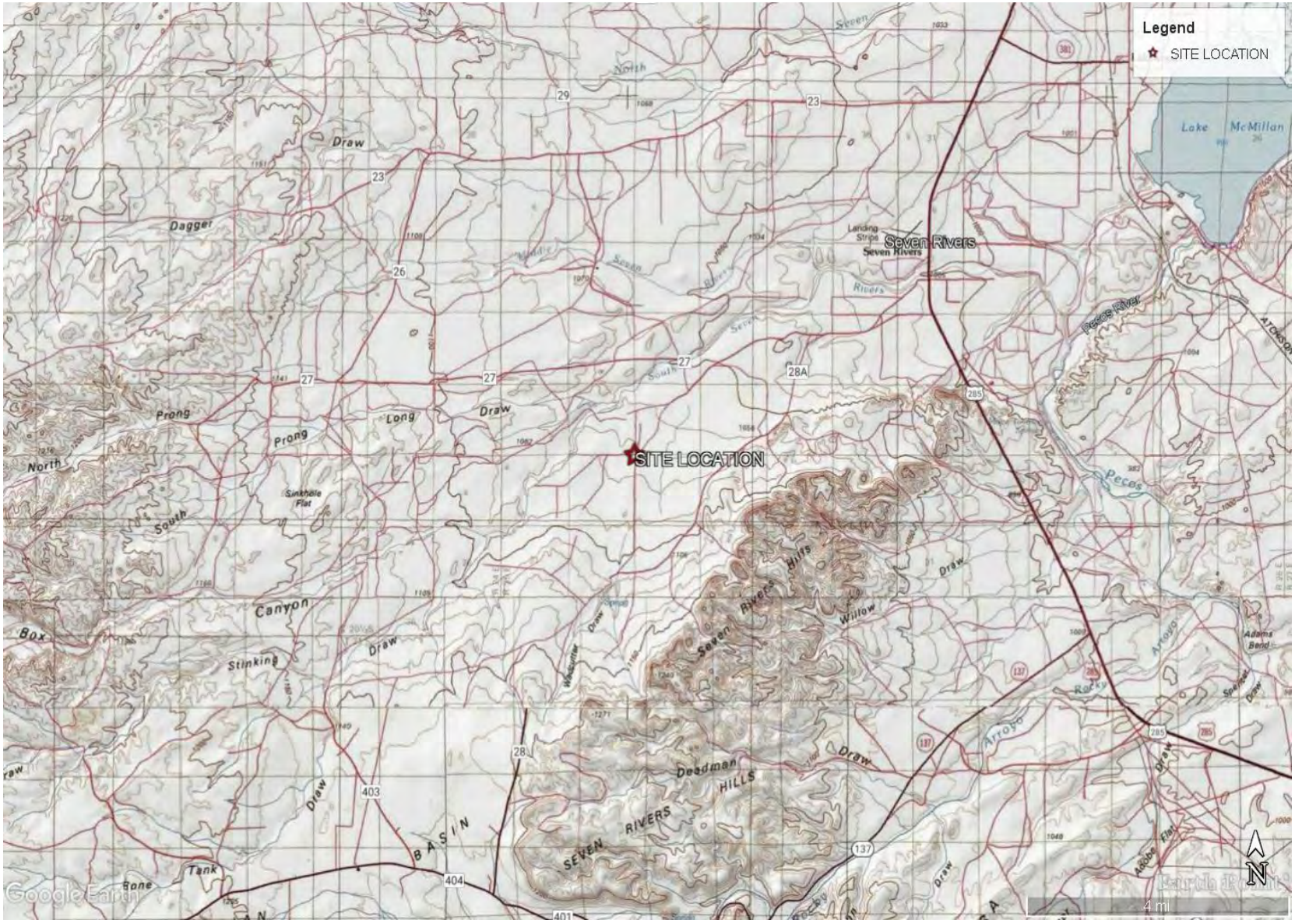
Mike Carmona
Environmental Manager

Conner Moehring
Sr. Project Manager

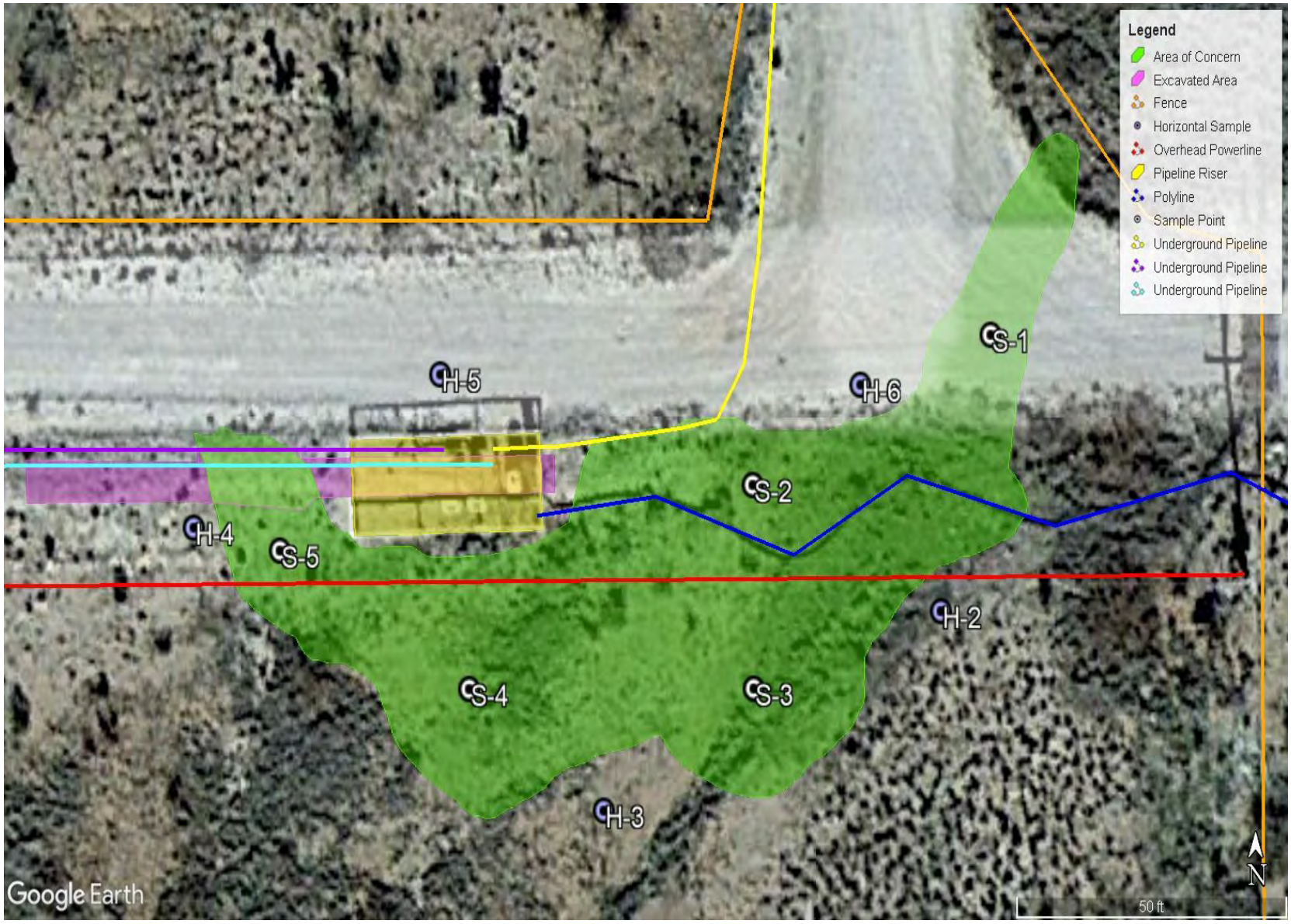
# FIGURES

CARMONA RESOURCES


| | | |
|---|---|---|
| SITE OVERVIEW MAP<br>FASKEN OIL AND RANCH<br>SHELL FEDERAL #2 SWD DISPOSAL LINE<br>EDDY COUNTY, NEW MEXICO<br>32.551779°, -104.498698° | CARMONA RESOURCES | FIGURE 1 |

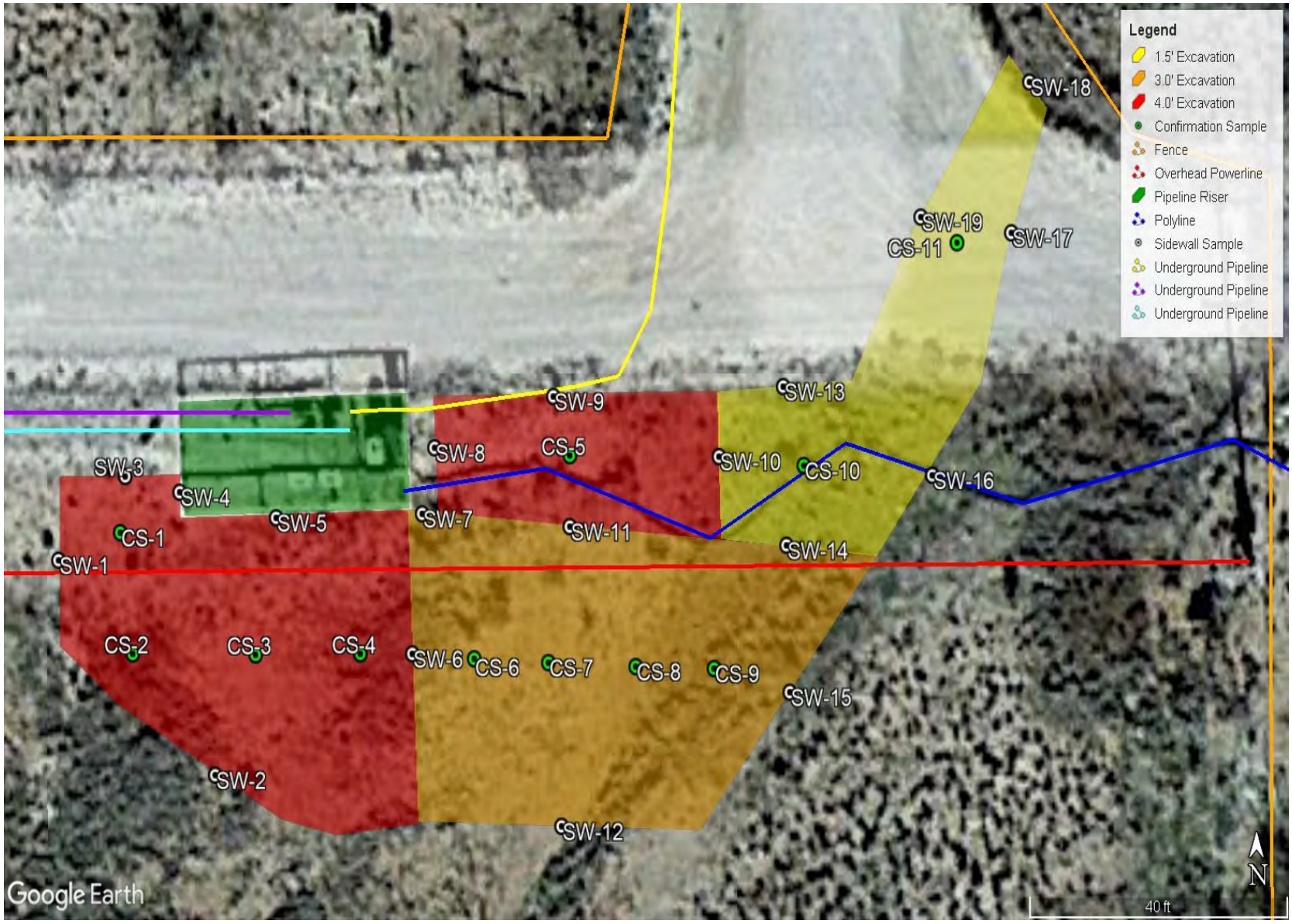



| | | |
|---|---|---|
| TOPOGRAPHIC MAP<br>FASKEN OIL AND RANCH<br>SHELL FEDERAL #2 SWD DISPOSAL LINE<br>EDDY COUNTY, NEW MEXICO<br>32.551779°, -104.498698° | CARMONA RESOURCES | FIGURE 2 |




| | | |
|---|---|---|
| SAMPLE LOCATION MAP<br>FASKEN OIL AND RANCH<br>SHELL FEDERAL #2 SWD DISPOSAL LINE<br>EDDY COUNTY, NEW MEXICO<br>32.551779°, -104.498698° | CARMONA RESOURCES | FIGURE 3 |


| | | |
|---|---|---|
| EXCAVATION MAP<br>FASKEN OIL AND RANCH<br>SHELL FEDERAL #2 SWD DISPOSAL LINE<br>EDDY COUNTY, NEW MEXICO<br>32.551779°, -104.498698° | CARMONA RESOURCES | FIGURE 4A |




| | | |
|---|---|---|
| EXCAVATION MAP<br>FASKEN OIL AND RANCH<br>SHELL FEDERAL #2 SWD DISPOSAL LINE<br>EDDY COUNTY, NEW MEXICO<br>32.551779°, -104.498698° | CARMONA RESOURCES | FIGURE 4B |

# APPENDIX A

CARMONA RESOURCES

**Table 1**
**Fasken Oil and Ranch**
**Shell Federal #2 SWD Disposal Line**
**Eddy County, New Mexico**

| Sample ID | Date | Depth (ft) | TPH (mg/kg) | | | | Benzene (mg/kg) | Toluene (mg/kg) | Ethlybenzene (mg/kg) | Xylene (mg/kg) | Total BTEX (mg/kg) | Chloride (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | GRO | DRO | MRO | Total | | | | | | |
| S-1 | 10/24/2022 | 0-1 | <49.8 | 91.2 | <49.8 | 91.2 | <0.201 | <0.201 | <0.201 | <0.402 | <0.402 | **18,300** |
| | " | 1.5 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00198 | <0.00198 | <0.00198 | <0.00396 | <0.00396 | 163 |
| | " | 2.0 | <49.8 | <49.8 | <49.8 | <49.8 | <0.00200 | <0.00200 | <0.00200 | <0.00399 | <0.00399 | 120 |
| S-2 | 10/24/2022 | 0-1 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | **2,240** |
| | " | 1.5 | <49.9 | <49.9 | <49.9 | <49.9 | 0.00275 | <0.00199 | <0.00199 | <0.00398 | 0.00507 | **2,270** |
| | " | 2.0 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00200 | <0.00200 | <0.00200 | <0.00399 | <0.00399 | **1,540** |
| | " | 3.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00201 | <0.00201 | <0.00201 | <0.00402 | <0.00402 | **1,150** |
| S-3 | 10/24/2022 | 0-1 | <50.0 | **315** | <50.0 | **315** | <0.00198 | <0.00198 | <0.00198 | <0.00396 | <0.00396 | **14,300** |
| | " | 1.5 | <49.8 | <49.8 | <49.8 | <49.8 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | **10,100** |
| | " | 2.0 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00200 | <0.00200 | <0.00200 | <0.00399 | <0.00399 | **3,310** |
| | " | 3.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | 160 |
| S-4 | 10/24/2022 | 0-1 | **170** | **2,610** | <50.0 | **2,780** | <0.0992 | <0.0992 | 0.106 | 0.439 | 0.545 | **4,330** |
| | " | 1.5 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | **10,400** |
| | " | 2.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00199 | <0.00199 | 0.00340 | 0.00801 | 0.0114 | **12,400** |
| | " | 3.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00200 | <0.00200 | <0.00200 | <0.00401 | <0.00401 | **8,490** |
| | " | 4.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00200 | <0.00200 | <0.00200 | <0.00401 | <0.00401 | 182 |
| S-5 | 10/24/2022 | 0-1 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00201 | 0.00256 | <0.00201 | <0.00402 | <0.00402 | **2,450** |
| | " | 1.5 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00198 | <0.00198 | <0.00198 | <0.00396 | <0.00396 | **2,150** |
| | " | 2.0 | <50.0 | <50.0 | <50.0 | <50.0 | 0.00253 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | **1,600** |
| | " | 3.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00200 | <0.00200 | <0.00200 | <0.00399 | <0.00399 | **1,160** |
| H-1 | 10/24/2022 | 0-0.5 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00200 | <0.00200 | <0.00200 | <0.00401 | <0.00401 | <4.98 |
| H-2 | 10/24/2022 | 0-0.5 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00200 | <0.00200 | <0.00200 | <0.00399 | <0.00399 | <4.96 |
| H-3 | 10/24/2022 | 0-0.5 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | <4.99 |
| H-4 | 10/24/2022 | 0-0.5 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | <4.97 |
| H-5 | 10/24/2022 | 0-0.5 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00201 | <0.00201 | <0.00201 | <0.00402 | <0.00402 | 16.5 |
| H-6 | 10/24/2022 | 0-0.5 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00200 | <0.00200 | <0.00200 | <0.00399 | <0.00399 | <4.18 |
| *Regulatory Criteria* [A] | | | | | | 100 mg/kg | 10 mg/kg | - | - | - | 50 mg/kg | 600 mg/kg |

(-) Not Analyzed
[A] – Table 1 - 19.15.29 NMAC
mg/kg - milligram per kilogram
TPH- Total Petroleum Hydrocarbons
ft-feet
(H) Horizontal
(S) Sample Point
Removed

# Table 2
## Fasken Oil and Ranch
## Shell Federal #2 Disposal Line
## Eddy County, New Mexico

| Sample ID | Date | Depth (ft) | TPH (mg/kg) | | | | Benzene (mg/kg) | Toluene (mg/kg) | Ethlybenzene (mg/kg) | Xylene (mg/kg) | Total BTEX (mg/kg) | Chloride (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | GRO | DRO | MRO | Total | | | | | | |
| **BH-1** | 1/23/2023 | 4.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | 5.02 |
| **SW-N** | 1/23/2023 | 4.0 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00200 | <0.00200 | <0.00200 | <0.00399 | <0.00399 | <4.97 |
| **SW-E** | 1/23/2023 | 4.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | 36.5 |
| **SW-S** | 1/23/2023 | 4.0 | <50.0 | <50.0 | <50.0 | <50.0 | <0.00201 | <0.00201 | <0.00201 | <0.00402 | <0.00402 | 52.7 |
| **SW-W** | 1/23/2023 | 4.0 | <49.9 | <49.9 | <49.9 | <49.9 | <0.00199 | <0.00199 | <0.00199 | <0.00398 | <0.00398 | 87.9 |
| ***Regulatory Criteria*** [A] | | | | | | **100 mg/kg** | **10 mg/kg** | | | | **50 mg/kg** | **600 mg/kg** |

(-) Not Analyzed

[A] – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet

(BH) Bottom Hole Sample

(SW) Sidewall Sample

# Table 3
## Fasken Oil and Ranch
## Shell Federal #2 Disposal Line
## Eddy County, New Mexico

| Sample ID | Date | Depth (ft) | TPH (mg/kg) | | | | Benzene (mg/kg) | Toluene (mg/kg) | Ethlybenzene (mg/kg) | Xylene (mg/kg) | Total BTEX (mg/kg) | Chloride (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | GRO | DRO | MRO | Total | | | | | | |
| **CS-1** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| **CS-2** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 64.0 |
| **CS-3** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 448 |
| **CS-4** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 80.0 |
| **CS-5** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 144 |
| **CS-6** | 5/12/2023 | 3.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 64.0 |
| **CS-7** | 5/12/2023 | 3.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 144 |
| **CS-8** | 5/12/2023 | 3.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| **CS-9** | 5/12/2023 | 3.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| **CS-10** | 5/12/2023 | 1.5 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| **CS-11** | 5/12/2023 | 1.5 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| ***Regulatory Criteria*** [A] | | | | | | **100 mg/kg** | **10 mg/kg** | | | | **50 mg/kg** | **600 mg/kg** |

(-) Not Analyzed
[A] – Table 1 - 19.15.29 NMAC
mg/kg - milligram per kilogram
TPH- Total Petroleum Hydrocarbons
ft-feet
(CS) Confirmation Smaple

# Table 3
## Fasken Oil and Ranch
## Shell Federal #2 Disposal Line
## Eddy County, New Mexico

| Sample ID | Date | Depth (ft) | TPH (mg/kg) | | | | Benzene (mg/kg) | Toluene (mg/kg) | Ethlybenzene (mg/kg) | Xylene (mg/kg) | Total BTEX (mg/kg) | Chloride (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | GRO | DRO | MRO | Total | | | | | | |
| **SW-1** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 16.0 |
| **SW-2** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| **SW-3** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 16.0 |
| **SW-4** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| **SW-5** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 16.0 |
| **SW-6** | 5/12/2023 | 1.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 272 |
| **SW-7** | 5/12/2023 | 3.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 64.0 |
| **SW-8** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 160 |
| **SW-9** | 5/12/2023 | 4.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 112 |
| **SW-10** | 5/12/2023 | 2.5 | 11.1 | <10.0 | <10.0 | 11.1 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| **SW-11** | 5/12/2023 | 1.0 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| **SW-12** | 5/12/2023 | 3.0 | 10.8 | <10.0 | <10.0 | 10.8 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 16.0 |
| **SW-13** | 5/12/2023 | 1.5 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 16.0 |
| **SW-14** | 5/12/2023 | 1.5 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 32.0 |
| **SW-15** | 5/12/2023 | 3.0 | 11.5 | <10.0 | <10.0 | 11.5 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 112 |
| **SW-16** | 5/12/2023 | 1.5 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| **SW-17** | 5/12/2023 | 1.5 | 11 | <10.0 | <10.0 | 11 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 48.0 |
| **SW-18** | 5/12/2023 | 1.5 | <10.0 | <10.0 | <10.0 | <10.0 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 128 |
| **SW-19** | 5/12/2023 | 1.5 | 10.6 | <10.0 | <10.0 | 10.6 | <0.050 | <0.050 | <0.050 | <0.150 | <0.300 | 192 |
| ***Regulatory Criteria*** [A] | | | | | | **100 mg/kg** | **10 mg/kg** | | | | **50 mg/kg** | **600 mg/kg** |

(-) Not Analyzed

[A] – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet

(SW) Sidewall Sample

# APPENDIX B

CARMONA RESOURCES

# PHOTOGRAPHIC LOG

## Fasken Oil and Ranch

**Photograph No. 1**

**Facility:** Shell Federal #2 SWD Disposal Line

**County:** Eddy County, New Mexico

**Description:**
View West, area of CS-1 through CS-4.


**Photograph No. 2**

**Facility:** Shell Federal #2 SWD Disposal Line

**County:** Eddy County, New Mexico

**Description:**
View East, area of CS-1 through CS-4.


**Photograph No. 3**

**Facility:** Shell Federal #2 SWD Disposal Line

**County:** Eddy County, New Mexico

**Description:**
View East, area of CS-5.


CARMONA RESOURCES

# PHOTOGRAPHIC LOG

**Fasken Oil and Ranch**

**Photograph No. 4**

**Facility:** Shell Federal #2 SWD Disposal Line

**County:** Eddy County, New Mexico

**Description:**
View West, area of CS-5.


**Photograph No. 5**

**Facility:** Shell Federal #2 SWD Disposal Line

**County:** Eddy County, New Mexico

**Description:**
View Northeast, area of CS-6 through CS-9.


**Photograph No. 6**

**Facility:** Shell Federal #2 SWD Disposal Line

**County:** Eddy County, New Mexico

**Description:**
View West, area of CS-6 though CS-10.

# PHOTOGRAPHIC LOG

## Fasken Oil and Ranch

**Photograph No. 7**

**Facility:** Shell Federal #2 SWD Disposal Line

**County:** Eddy County, New Mexico

**Description:**
View Southeast, half of area of CS-11.


**Photograph No. 8**

**Facility:** Shell Federal #2 SWD Disposal Line

**County:** Eddy County, New Mexico

**Description:**
View Northeast, half of area of CS-11.


CARMONA RESOURCES

# APPENDIX C

CARMONA RESOURCES

**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 150438

## QUESTIONS

| | |
|---|---|
| Operator:<br>FASKEN OIL & RANCH LTD<br>6101 Holiday Hill Rd<br>Midland, TX 79707 | OGRID:<br>151416 |
| | Action Number:<br>150438 |
| | Action Type:<br>[NOTIFY] Notification Of Release (NOR) |

**QUESTIONS**

| **Location of Release Source**<br>*Please answer all of the questions in this group.* | |
|---|---|
| Site Name | Shell Federal 2 SWD Disposal Line |
| Date Release Discovered | 10/04/2022 |
| Surface Owner | Federal |

| **Incident Details**<br>*Please answer all of 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 |
| 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**<br>*Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.* | |
|---|---|
| Crude Oil Released (bbls) Details | *Not answered.* |
| Produced Water Released (bbls) Details | Cause: Corrosion \| Other (Specify) \| Produced Water \| Released: 80 BBL \| Recovered: 0 BBL \| Lost: 80 BBL ] |
| Is the concentration of dissolved chloride in the produced water >10,000 mg/l | No |
| 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) | Disposal line was corroded that goes to the Shell Federal 2 SWD.The spill happened 3.3 Northeast of SWD battery. |

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# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
# 1220 S. St Francis Dr.
# Santa Fe, NM 87505



## QUESTIONS (continued)

| | |
|---|---|
| Operator:<br>FASKEN OIL & RANCH LTD<br>6101 Holiday Hill Rd<br>Midland, TX 79707 | OGRID:<br>151416 |
| | Action Number:<br>150438 |
| | Action Type:<br>[NOTIFY] Notification Of Release (NOR) |

**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 19.15.29.7(A) NMAC | **Yes, major release.** |
| Reasons why this would be considered a submission for a notification of a major release | • Unauthorized release of a volume, excluding gases, of 25 barrels or more |
| If YES, was immediate notice given to the OCD, by whom | Addison Guelker |
| If YES, was immediate notice given to the OCD, to whom | ocd.enviro@state.nm.us and blm_nm_cfo_spill@blm.gov |
| If YES, was immediate notice given to the OCD, when | 10/05/2022 |
| If YES, was immediate notice given to the OCD, by what means (phone, email, etc.) | email |
| *With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.* | |

| **Initial Response**<br>*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 | False |
| 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 | On a flowline so there were no berms to keep it from dissipating. |
| *Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please 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 19.15.29.11(A)(5)(a) NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.* | |

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# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
# 1220 S. St Francis Dr.
# Santa Fe, NM 87505



## ACKNOWLEDGMENTS

| | |
|---|---|
| Operator:<br>FASKEN OIL & RANCH LTD<br>6101 Holiday Hill Rd<br>Midland, TX 79707 | OGRID:<br>151416 |
| | Action Number:<br>150438 |
| | Action Type:<br>[NOTIFY] Notification Of Release (NOR) |

**ACKNOWLEDGMENTS**

| | |
|---|---|
| ☑ | I acknowledge that I am authorized to submit notification of a releases on behalf of my operator. |
| ☑ | I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29. |
| ☑ | I acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29. |
| ☑ | 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. |
| ☑ | I acknowledge the fact that 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. |
| ☑ | I acknowledge the fact that, 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. |

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# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
# 1220 S. St Francis Dr.
# Santa Fe, NM 87505

CONDITIONS

Action 150438

## CONDITIONS

| | |
|---|---|
| Operator:<br>FASKEN OIL & RANCH LTD<br>6101 Holiday Hill Rd<br>Midland, TX 79707 | OGRID:<br>151416 |
| | Action Number:<br>150438 |
| | Action Type:<br>[NOTIFY] Notification Of Release (NOR) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| along | When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141. | 10/12/2022 |

# ****** LIQUID SPILLS - VOLUME CALCULATIONS ******

**Location of spill:** Shell Fed #2 SWD Disposal Line **Date of Spill:** 4-Oct-2022

**If the leak/spill is associated with production equipment**, i.e. - wellhead, stuffing box, flowline, tank battery, production vessel, transfer pump, or storage tank **place an "X" here:** X

## Input Data:

| | OIL: | WATER: |
|---|---|---|
| If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: | 0.0 BBL | 0.0 BBL |

**If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.**

## Total Area Calculations

| Total Surface Area | width | | length | | wet soil depth | oil (%) |
|---|---|---|---|---|---|---|
| Rectangle Area #1 | 30 ft | X | 19 ft | X | 6.00 in | 0% |
| Rectangle Area #2 | 27 ft | X | 39 0 | X | 6.00 in | 0% |
| Rectangle Area #3 | 39 ft | X | 4 ft | X | 6.00 in | 0% |
| Rectangle Area #4 | 39 ft | X | 13 ft | X | 6 in | 0% |
| Rectangle Area #5 | 76 ft | X | 54 ft | X | 6 in | 0% |
| Rectangle Area #6 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #7 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #8 | 0 ft | X | 0 ft | X | 0 in | 0% |

## Standing Liquid Calculations

| Standing Liquid Area | width | | length | | liquid depth | oil (%) |
|---|---|---|---|---|---|---|
| Rectangle Area #1 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #2 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #3 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #4 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #5 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #6 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #7 | 0 ft | X | 0 ft | X | 0 in | 0% |
| Rectangle Area #8 | 0 ft | X | 0 ft | X | 0 in | 0% |

okay

**production system leak - DAILY PRODUCTION DATA REQUIRED**

Average Daily Production: Oil 0 BBL Water 0 BBL 0 Gas (MCFD)

Total Hydrocarbon Content in gas: 0% (percentage)

Did leak occur before the separator?: YES N/A *(place an "X")*

H2S Content in Produced Gas: 0 PPM

H2S Content in Tank Vapors: 0 PPM

Amount of Free Liquid Recovered: 0 BBL okay

Percentage of Oil in Free Liquid Recovered: 0% (percentage)

Liquid holding factor *: 0.14 gal per gal

Use the following when the spill wets the grains of the soil.
* Sand = **0.08** gallon (gal.) liquid per gal. volume of soil.
* Gravelly (caliche) loam = **0.14** gal. liquid per gal. volume of soil.
* Sandy clay loam soil = **0.14** gal liquid per gal. volume of soil.
* Clay loam = **0.16** gal. liquid per gal. volume of soil.

Use the following when the liquid completely fills the pore space of the soil:
Occurs when the spill soaked soil is contained by barriers, natural (or not).
* Clay loam = **0.20** gal. liquid per gal. volume of soil.
* Gravelly (caliche) loam = **0.25** gal. liquid per gal. volume of soil.
* Sandy loam = **0.5** gal. liquid per gal. volume of soil.

Total Solid/Liquid Volume: 6,390 sq. ft. 3,195 cu. ft. cu. ft.

Total Free Liquid Volume: sq. ft. cu. ft. cu. ft.

### Estimated Volumes Spilled

| | H2O | OIL |
|---|---|---|
| Liquid in Soil: | 79.7 BBL | 0.0 BBL |
| Free Liquid: | 0.0 BBL | 0.0 BBL |
| Totals: | 79.7 BBL | 0.0 BBL |
| Total Liquid Spill Liquid: | 79.7 BBL | 0.00 BBL |

### Estimated Production Volumes Lost

| | H2O | OIL |
|---|---|---|
| Estimated Production Spilled: | 0.0 BBL | 0.0 BBL |

### Estimated Surface Damage

Surface Area: 6,390 sq. ft.

Surface Area: .1467 acre

### Recovered Volumes

Estimated oil recovered: BBL check - okay

Estimated water recovered: BBL check - okay

### Estimated Weights, and Volumes

| | | | |
|---|---|---|---|
| Saturated Soil = | 357,840 lbs | 3,195 cu. ft. | 118 cu. yds. |
| Total Liquid = | 80 BBL | 3,346 gallon | 27,837 lbs |

### Air Emission from flowline leaks:

| | | |
|---|---|---|
| Volume of oil spill: | - | BBL |
| Separator gas calculated: | - | MCF |
| Separator gas released: | - | MCF |
| Gas released from oil: | - | lb |
| H2S released: | - | lb |
| Total HC gas released: | - | lb |
| Total HC gas released: | - | MCF |

### Air Emission of Reporting Requirements:

| | New Mexico | Texas |
|---|---|---|
| HC gas release reportable? | NO | NO |
| H2S release reportable? | NO | NO |

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# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
# 1220 S. St Francis Dr.
# Santa Fe, NM 87505



## CONDITIONS

| | |
|---|---|
| Operator:<br>FASKEN OIL & RANCH LTD<br>6101 Holiday Hill Rd<br>Midland, TX 79707 | OGRID:<br>151416 |
| | Action Number:<br>150448 |
| | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| jharimon | None | 10/13/2022 |

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

# Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

| | |
|---|---|
| What is the shallowest depth to groundwater beneath the area affected by the release? | _____ (ft bgs) |
| Did this release impact groundwater or surface water? | ☐ Yes ☐ No |
| Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse? | ☐ Yes ☐ No |
| Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)? | ☐ Yes ☐ No |
| Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church? | ☐ Yes ☐ No |
| Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes? | ☐ Yes ☐ No |
| Are the lateral extents of the release within 1000 feet of any other fresh water well or spring? | ☐ Yes ☐ No |
| Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field? | ☐ Yes ☐ No |
| Are the lateral extents of the release within 300 feet of a wetland? | ☐ Yes ☐ No |
| Are the lateral extents of the release overlying a subsurface mine? | ☐ Yes ☐ No |
| Are the lateral extents of the release overlying an unstable area such as karst geology? | ☐ Yes ☐ No |
| Are the lateral extents of the release within a 100-year floodplain? | ☐ Yes ☐ No |
| Did the release impact areas **not** on an exploration, development, production, or storage site? | ☐ Yes ☐ No |

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

**Characterization Report Checklist**: ***Each of the following items must be included in the report.***

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NAPP2228544134 |
| District RP | |
| Facility ID | |
| Application ID | |

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Addison Guelker Title: Environmental Tech

Signature: Addison Guelker Date: 06/05/23

email: addisong@forl.com Telephone: 432-687-1777

**OCD Only**

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

| | |
|---|---|
| Incident ID | NAPP2228544134 |
| District RP | |
| Facility ID | |
| Application ID | |

# Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist**: ***Each of the following items must be included in the closure report.***

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Addison Guelker Title: Environmental Tech

Signature: Addison Guelker Date: 06/05/23

email: addisong@forl.com Telephone: 432-687-1777

**OCD Only**

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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# State of New Mexico
# Energy, Minerals and Natural Resources
# Oil Conservation Division
# 1220 S. St Francis Dr.
# Santa Fe, NM 87505



## CONDITIONS

| | |
|---|---|
| Operator:<br>FASKEN OIL & RANCH LTD<br>6101 Holiday Hill Rd<br>Midland, TX 79707 | OGRID:<br>151416 |
| | Action Number:<br>160967 |
| | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| rhamlet | The Remediation Plan is Conditionally Approved. This release is in a high karst area and will need to be remediated to the strictest closure criteria of <50' depth to groundwater from Table 1 of the spill rule. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Confirmation samples should be collected every 200 ft2. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The variance for confirmation samples every 400 ft2 is approved. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. The work will need to occur in 90 days after the work plan has been approved. | 2/20/2023 |

## Miranda Milwee

**From:** Mike Carmona
**Sent:** Monday, May 8, 2023 4:25 PM
**To:** NMOCD Spill Notifications (OCD.Enviro@emnrd.nm.gov)
**Cc:** Conner Moehring; Addison Guelker; Grant Huckabay
**Subject:** Fasken - Sampling Notification - Shell Federal #2 SWD Disposal Line -Incident # NAPP2228544134

Good Afternoon,

This email serves as a 48-hour notification for confirmation sampling on the Fasken Shell Federal #2 SWD Disposal Line. Sampling is scheduled to begin as early as 8:00 a.m. (MST) Thursday, May 11th, weather and soil conditions permitting. Carmona Resources will be on-site to collect the confirmation samples.

Incident # NAPP2228544134
Coordinates: 32.551779°, -104.498698°

Mike J. Carmona
310 West Wall Street, Suite 500
Midland TX, 79701
M: 432-813-1992
Mcarmona@carmonaresources.com

CARMONA RESOURCES

# APPENDIX D

CARMONA RESOURCES

# Nearest Water Well

Faskin Oil and Ranch

170' - Drilled 1960

206.07' - Drilled 1966

80' - Drilled 1966

212' - Drilled 2004

218.03' - Drilled 2003

Shell Federal

**Legend**

- 0.50 Mile Radius
- 0.50 Miles
- 0.61 Miles
- 0.81 Miles
- 1.31 Miles
- 1.36 Miles
- NMSEO Water Well
- Shell Federal
- USGS Water Well

N

4000 ft

Google Earth

High Karst

Faskin Oil and Ranch

Legend

High

Shell Federal

Shell Federal

Google Earth

3000 ft

N

# New Mexico Office of the State Engineer
# Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

| POD Number | POD Sub-basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng | X | Y | Distance | Depth Well | Depth Water | Water Column |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RA 09978 | RA | ED | 3 | 1 | 2 | 29 | 20S | 25E | 546393 | 3601410* | 735 | 350 | | |
| RA 10618 | RA | ED | 1 | 1 | 4 | 20 | 20S | 25E | 546389 | 3602414 | 976 | 342 | 212 | 130 |
| RA 05038 | RA | ED | 1 | 1 | 4 | 20 | 20S | 25E | 546390 | 3602416* | 977 | 314 | 228 | 86 |
| RA 05227 | RA | ED | | | 1 | 21 | 20S | 25E | 547506 | 3602926* | 1293 | 100 | 80 | 20 |
| RA 04349 | RA | ED | 4 | 1 | 4 | 17 | 20S | 25E | 546587 | 3603827* | 2170 | 231 | 170 | 61 |
| RA 12699 | RA | ED | 4 | 4 | 1 | 22 | 20S | 25E | 549327 | 3602647 | 2448 | | | |
| C 03245 | C | ED | 3 | 1 | 4 | 32 | 20S | 25E | 546395 | 3598990* | 2801 | 253 | 100 | 153 |
| RA 04502 | RA | ED | | 2 | 2 | 25 | 20S | 24E | 543656 | 3601480* | 3416 | 300 | 268 | 32 |
| RA 10141 | RA | ED | 3 | 4 | 1 | 23 | 20S | 25E | 550815 | 3602617* | 3858 | 245 | | |

Average Depth to Water: **176 feet**
Minimum Depth: **80 feet**
Maximum Depth: **268 feet**

**Record Count:** 9

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 547065.12 **Northing (Y):** 3601709.7 **Radius:** 4000

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

| Date | Time | ? Water-level date-time accuracy | ? Parameter code | Water level, feet below land surface | Water level, feet above specific vertical datum | Referenced vertical datum | ? |
|---|---|---|---|---|---|---|---|

Groundwater | New Mexico | GO

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- Effective October 24, 2022 hyperlinks to legacy Current Condition pages will automatically redirect users to the corresponding Monitoring Location page. Please see the Water Data For The Nation Blog for full details, including how to navigate back to the legacy Current Condition page, if desired.
- 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 New Mexico

Click to hide state-specific text

Important: Next Generation Monitoring Location Page

## Search Results -- 1 sites found

**Agency code =** usgs
**site_no list =**
- 323328104301201

**Minimum number of levels =** 1
Save file of selected sites to local disk for future upload

## USGS 323328104301201 20S.25E.20.41114

Eddy County, New Mexico
Latitude 32°33'28", Longitude 104°30'12" NAD27
Land-surface elevation 3,502 feet above NAVD88
The depth of the well is 314.0 feet below land surface.
This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.
This well is completed in the Artesia Group (313ARTS) local aquifer.

**Output formats**

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

| Date | Time | ? Water-level date-time accuracy | ? Parameter code | Water level, feet below land surface | Water level, feet above specific vertical datum | Referenced vertical datum | ? Status | ? Method of measurement | ? Measuring agency | ? Source measu |
|---|---|---|---|---|---|---|---|---|---|---|
| 1984-02-01 | | D | 62610 | | 3286.24 | NGVD29 | 1 | Z | | |
| 1984-02-01 | | D | 62611 | | 3287.82 | NAVD88 | 1 | Z | | |
| 1984-02-01 | | D | 72019 | 214.18 | | | 1 | Z | | |
| 1989-02-09 | | D | 62610 | | 3305.62 | NGVD29 | 1 | Z | | |
| 1989-02-09 | | D | 62611 | | 3307.20 | NAVD88 | 1 | Z | | |
| 1989-02-09 | | D | 72019 | 194.80 | | | 1 | Z | | |
| 1990-03-07 | | D | 62610 | | 3303.49 | NGVD29 | 1 | S | | |
| 1990-03-07 | | D | 62611 | | 3305.07 | NAVD88 | 1 | S | | |
| 1990-03-07 | | D | 72019 | 196.93 | | | 1 | S | | |
| 1992-02-06 | | D | 62610 | | 3302.77 | NGVD29 | 1 | Z | | |
| 1992-02-06 | | D | 62611 | | 3304.35 | NAVD88 | 1 | Z | | |
| 1992-02-06 | | D | 72019 | 197.65 | | | 1 | Z | | |

| Date | Time | ? Water-level date-time accuracy | ? Parameter code | | Water level, feet below land surface | Water level, feet above specific vertical datum | Referenced vertical datum | | S |
|---|---|---|---|---|---|---|---|---|---|
| 1993-02-04 | | D | 62610 | | 3304.86 | NGVD29 | 1 | Z | | |
| 1993-02-04 | | D | 62611 | | 3306.44 | NAVD88 | 1 | Z | | |
| 1993-02-04 | | D | 72019 | 195.56 | | | 1 | Z | | |
| 1994-02-11 | | D | 62610 | | 3302.19 | NGVD29 | 1 | Z | | |
| 1994-02-11 | | D | 62611 | | 3303.77 | NAVD88 | 1 | Z | | |
| 1994-02-11 | | D | 72019 | 198.23 | | | 1 | Z | | |
| 1999-02-24 | | D | 62610 | | 3293.39 | NGVD29 | 1 | S | USGS | |
| 1999-02-24 | | D | 62611 | | 3294.97 | NAVD88 | 1 | S | USGS | |
| 1999-02-24 | | D | 72019 | 207.03 | | | 1 | S | USGS | |
| 2003-01-22 | | D | 62610 | | 3282.39 | NGVD29 | 1 | S | USGS | |
| 2003-01-22 | | D | 62611 | | 3283.97 | NAVD88 | 1 | S | USGS | |
| 2003-01-22 | | D | 72019 | 218.03 | | | 1 | S | USGS | |

**Explanation**

| Section | Code | Description |
|---|---|---|
| Water-level date-time accuracy | D | Date is accurate to the Day |
| Parameter code | 62610 | Groundwater level above NGVD 1929, feet |
| Parameter code | 62611 | Groundwater level above NAVD 1988, feet |
| Parameter code | 72019 | Depth to water level, feet below land surface |
| Referenced vertical datum | NAVD88 | North American Vertical Datum of 1988 |
| Referenced vertical datum | NGVD29 | National Geodetic Vertical Datum of 1929 |
| Status | 1 | Static |
| Method of measurement | S | Steel-tape measurement. |
| Method of measurement | Z | Other. |
| Measuring agency | | Not determined |
| Measuring agency | USGS | U.S. Geological Survey |
| Source of measurement | | Not determined |
| Source of measurement | S | Measured by personnel of reporting agency. |
| Water-level approval status | A | Approved for publication -- Processing and review completed. |

Questions about sites/data?
Feedback on this web site
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 New Mexico: Water Levels**
**URL: https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?**

Page Contact Information: New Mexico Water Data Maintainer
Page Last Modified: 2022-10-27 10:59:41 EDT
0.3 0.25 nadww01

# New Mexico Office of the State Engineer
# Point of Diversion Summary

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

| Well Tag | POD Number | Q64 | Q16 | Q4 | Sec | Twn | Rng | X | Y |
|---|---|---|---|---|---|---|---|---|---|
| | RA 10618 | 1 | 1 | 4 | 20 | 20S | 25E | 546389 | 3602414 |

**Driller License:** 421 **Driller Company:** GLENN'S WATER WELL SERVICE

**Driller Name:** GLENN, CLARK A."CORKY" (LD)

| | | | | | |
|---|---|---|---|---|---|
| **Drill Start Date:** | 09/14/2004 | **Drill Finish Date:** | 09/14/2004 | **Plug Date:** | |
| **Log File Date:** | 09/20/2004 | **PCW Rcv Date:** | | **Source:** | Artesian |
| **Pump Type:** | SUBMER | **Pipe Discharge Size:** | | **Estimated Yield:** | 130 GPM |
| **Casing Size:** | 6.63 | **Depth Well:** | 342 feet | **Depth Water:** | 212 feet |

**Water Bearing Stratifications:**

| Top | Bottom | Description |
|---|---|---|
| 238 | 292 | Limestone/Dolomite/Chalk |
| 298 | 342 | Limestone/Dolomite/Chalk |

**Casing Perforations:**

| Top | Bottom |
|---|---|
| 236 | 312 |
| 312 | 342 |

| | | | |
|---|---|---|---|
| **Meter Number:** | 8311 | **Meter Make:** | BLANCETT |
| **Meter Serial Number:** | 112211502 | **Meter Multiplier:** | 1.0000 |
| **Number of Dials:** | 6 | **Meter Type:** | Diversion |
| **Unit of Measure:** | Barrels 42 gal. | **Return Flow Percent:** | |
| **Usage Multiplier:** | | **Reading Frequency:** | |

**Meter Readings (in Acre-Feet)**

| Read Date | Year | Mtr Reading | Flag | Rdr | Comment | Mtr Amount | Online |
|---|---|---|---|---|---|---|---|
| 09/18/2004 | 2004 | 106888 | A | RPT | | 0 | |
| 10/13/2004 | 2004 | 110043 | A | RPT | | 0.968 | |
| 01/05/2005 | 2005 | 0 | A | RPT | | 0 | |
| 02/10/2005 | 2005 | 7420 | A | RPT | | 2.277 | |
| 07/14/2005 | 2005 | 43444 | A | RPT | | 0 | |
| 09/12/2005 | 2005 | 53144 | A | RPT | | 2.977 | |
| 10/29/2005 | 2005 | 141623 | A | RPT | | 0 | |
| 12/04/2005 | 2005 | 147395 | A | RPT | | 1.771 | |
| 05/11/2012 | 2012 | 0 | A | RPT | | 0 | |
| 05/22/2012 | 2012 | 23038 | A | RPT | | 2.969 | |
| 05/22/2012 | 2012 | 23038 | A | RPT | intial reading for RA 11821 | 0 | |
| 06/02/2012 | 2012 | 46176 | A | RPT | ending reading for RA 11821 | 2.982 | |

| **YTD Meter Amounts: | Year | Amount |
|---|---|---|
| | 2004 | 0.968 |
| | 2005 | 7.025 |
| | 2012 | 5.951 |

10/27/22 8:34 AM POINT OF DIVERSION SUMMARY

# *New Mexico Office of the State Engineer*
# Point of Diversion Summary

| Well Tag | POD Number | (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64 | Q16 | Q4 | Sec | Tws | Rng | (NAD83 UTM in meters) X | Y |
|---|---|---|---|---|---|---|---|---|---|
| | RA 05227 | | | 1 | 21 | 20S | 25E | 547506 | 3602926* |

| | | | | | |
|---|---|---|---|---|---|
| **Driller License:** | 408 | **Driller Company:** | PRICE, TOMMY | | |
| **Driller Name:** | PRICE, TOMMY | | | | |
| **Drill Start Date:** | 05/20/1966 | **Drill Finish Date:** | 06/05/1966 | **Plug Date:** | |
| **Log File Date:** | 07/18/1966 | **PCW Rcv Date:** | | **Source:** | Shallow |
| **Pump Type:** | | **Pipe Discharge Size:** | | **Estimated Yield:** | |
| **Casing Size:** | 6.63 | **Depth Well:** | 100 feet | **Depth Water:** | 80 feet |

| Water Bearing Stratifications: | Top | Bottom | Description |
|---|---|---|---|
| | 80 | 100 | Limestone/Dolomite/Chalk |

| Casing Perforations: | Top | Bottom |
|---|---|---|
| | 75 | 100 |

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

| Date | Time | ? Water-level date-time accuracy | ? Parameter code | Water level, feet below land surface | Water level, feet above specific vertical datum | Referenced vertical datum | ? |
|---|---|---|---|---|---|---|---|

Groundwater | New Mexico | GO

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- Effective October 24, 2022 hyperlinks to legacy Current Condition pages will automatically redirect users to the corresponding Monitoring Location page. Please see the Water Data For The Nation Blog for full details, including how to navigate back to the legacy Current Condition page, if desired.
- 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 New Mexico

Click to hide state-specific text

Important: Next Generation Monitoring Location Page

## Search Results -- 1 sites found

**Agency code =** usgs
**site_no list =**
- 323415104295601

**Minimum number of levels =** 1
Save file of selected sites to local disk for future upload

## USGS 323415104295601 20S.25E.17.42321

Eddy County, New Mexico
Latitude 32°34'15", Longitude 104°29'56" NAD27
Land-surface elevation 3,504 feet above NAVD88
The depth of the well is 231 feet below land surface.
This well is completed in the Roswell Basin aquifer system (S400RSWLBS) 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 |

| Date | Time | ? Water-level date-time accuracy | ? Parameter code | Water level, feet below land surface | Water level, feet above specific vertical datum | Referenced vertical datum | ? Status | ? Method of measurement | ? Measuring agency | ? Source measu |
|---|---|---|---|---|---|---|---|---|---|---|
| 1962-01-05 | | D | 62610 | | 3322.75 | NGVD29 | 1 | Z | | |
| 1962-01-05 | | D | 62611 | | 3324.32 | NAVD88 | 1 | Z | | |
| 1962-01-05 | | D | 72019 | 179.68 | | | 1 | Z | | |
| 1963-01-07 | | D | 62610 | | 3315.44 | NGVD29 | 1 | Z | | |
| 1963-01-07 | | D | 62611 | | 3317.01 | NAVD88 | 1 | Z | | |
| 1963-01-07 | | D | 72019 | 186.99 | | | 1 | Z | | |
| 1963-07-24 | | D | 62610 | | 3307.77 | NGVD29 | P | Z | | |
| 1963-07-24 | | D | 62611 | | 3309.34 | NAVD88 | P | Z | | |
| 1963-07-24 | | D | 72019 | 194.66 | | | P | Z | | |
| 1963-09-04 | | D | 62610 | | 3288.15 | NGVD29 | 1 | Z | | |
| 1963-09-04 | | D | 62611 | | 3289.72 | NAVD88 | 1 | Z | | |
| 1963-09-04 | | D | 72019 | 214.28 | | | 1 | Z | | |

| Date | Time | ? Water-level date-time accuracy | ? Parameter code | | Water level, feet below land surface | | Water level, feet above specific vertical datum | | Referenced vertical datum | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1963-10-02 | | D | 62610 | | 3288.43 | NGVD29 | 1 | Z | | |
| 1963-10-02 | | D | 62611 | | 3290.00 | NAVD88 | 1 | Z | | |
| 1963-10-02 | | D | 72019 | 214.00 | | | 1 | Z | | |
| 1963-11-20 | | D | 62610 | | 3295.25 | NGVD29 | P | Z | | |
| 1963-11-20 | | D | 62611 | | 3296.82 | NAVD88 | P | Z | | |
| 1963-11-20 | | D | 72019 | 207.18 | | | P | Z | | |
| 1964-01-06 | | D | 62610 | | 3305.15 | NGVD29 | P | Z | | |
| 1964-01-06 | | D | 62611 | | 3306.72 | NAVD88 | P | Z | | |
| 1964-01-06 | | D | 72019 | 197.28 | | | P | Z | | |
| 1965-01-13 | | D | 62610 | | 3295.75 | NGVD29 | P | Z | | |
| 1965-01-13 | | D | 62611 | | 3297.32 | NAVD88 | P | Z | | |
| 1965-01-13 | | D | 72019 | 206.68 | | | P | Z | | |
| 1966-01-27 | | D | 62610 | | 3296.36 | NGVD29 | 1 | Z | | |
| 1966-01-27 | | D | 62611 | | 3297.93 | NAVD88 | 1 | Z | | |
| 1966-01-27 | | D | 72019 | 206.07 | | | 1 | Z | | |

**Explanation**

| Section | Code | Description |
|---|---|---|
| Water-level date-time accuracy | D | Date is accurate to the Day |
| Parameter code | 62610 | Groundwater level above NGVD 1929, feet |
| Parameter code | 62611 | Groundwater level above NAVD 1988, feet |
| Parameter code | 72019 | Depth to water level, feet below land surface |
| Referenced vertical datum | NAVD88 | North American Vertical Datum of 1988 |
| Referenced vertical datum | NGVD29 | National Geodetic Vertical Datum of 1929 |
| Status | 1 | Static |
| Status | P | Pumping |
| Method of measurement | Z | Other. |
| Measuring agency | | Not determined |
| Source of measurement | | Not determined |
| Water-level approval status | A | Approved for publication -- Processing and review completed. |

# *New Mexico Office of the State Engineer*
# Point of Diversion Summary

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

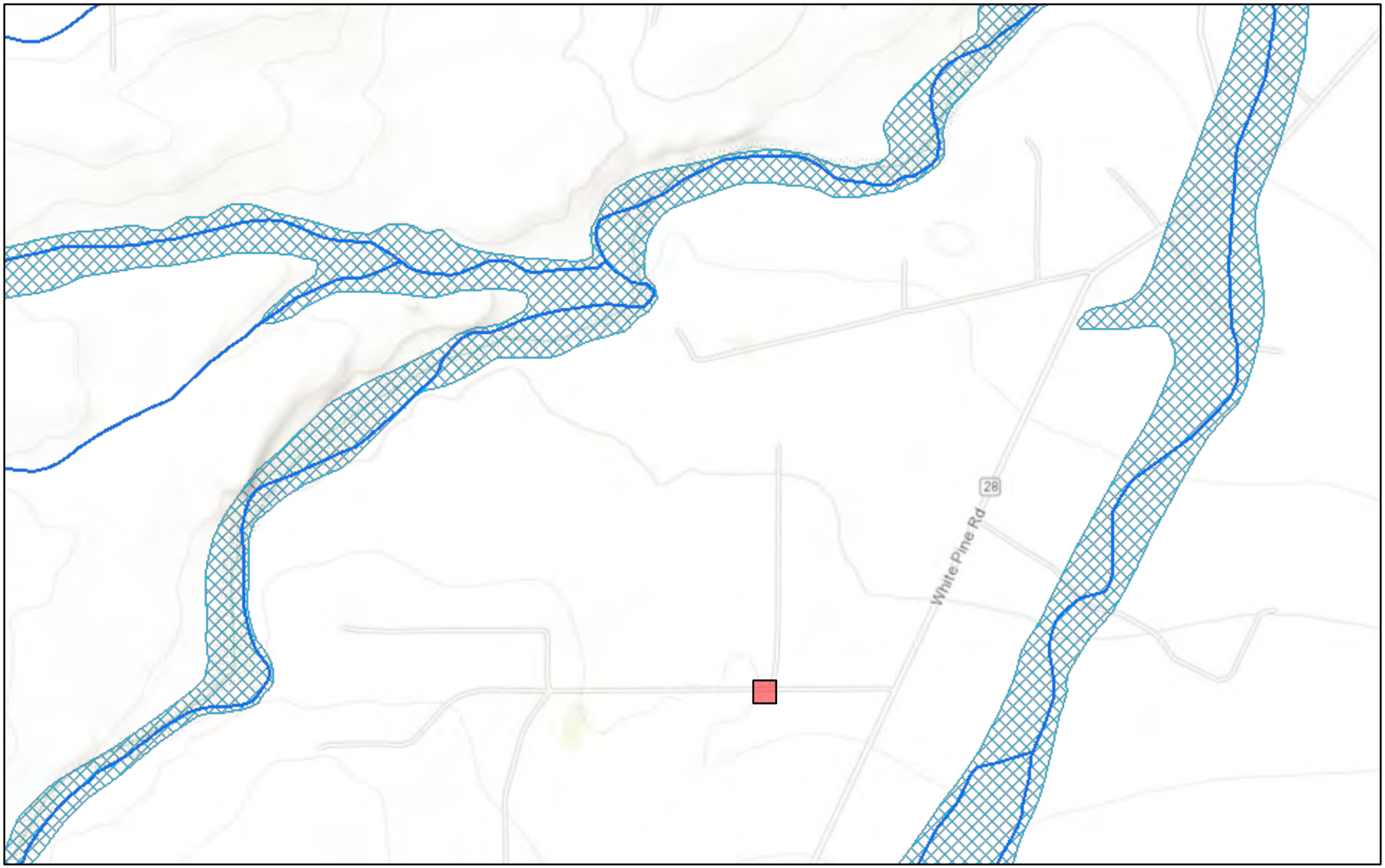
| Well Tag | POD Number | Q64 | Q16 | Q4 | Sec | Tws | Rng | X | Y |
|---|---|---|---|---|---|---|---|---|---|
| | RA 04349 | 4 | 1 | 4 | 17 | 20S | 25E | 546587 | 3603827* |

| | | | | | |
|---|---|---|---|---|---|
| **Driller License:** | 62 | **Driller Company:** | BEATTY, J.R. | | |
| **Driller Name:** | W.BEATTY | | | | |
| **Drill Start Date:** | 12/24/1960 | **Drill Finish Date:** | 12/27/1960 | **Plug Date:** | |
| **Log File Date:** | 01/11/1961 | **PCW Rcv Date:** | | **Source:** | Shallow |
| **Pump Type:** | | **Pipe Discharge Size:** | | **Estimated Yield:** | |
| **Casing Size:** | 7.00 | **Depth Well:** | 231 feet | **Depth Water:** | 170 feet |

| Water Bearing Stratifications: | Top | Bottom | Description |
|---|---|---|---|
| | 218 | 231 | Sandstone/Gravel/Conglomerate |

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

# New Mexico NFHL Data




October 27, 2022

1:18,056

0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

FEMA, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

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# APPENDIX E

CARMONA RESOURCES

eurofins | Environment Testing

# ANALYTICAL REPORT

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

Laboratory Job ID: 880-20700-1
Laboratory Sample Delivery Group: Eddy County, New Mexico
Client Project/Site: Shell Federal

For:
Carmona Resources
310 W Wall St
Ste 415
Midland, Texas 79701

Attn: Mike Carmona

JKramer

*Authorized for release by:*
*10/31/2022 9:39:32 AM*

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



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

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

Client: Carmona Resources
Project/Site: Shell Federal

Laboratory Job ID: 880-20700-1
SDG: Eddy County, New Mexico

# Table of Contents

# Definitions/Glossary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Qualifiers

### GC VOA

| Qualifier | Qualifier Description |
|---|---|
| *- | LCS and/or LCSD is outside acceptance limits, low 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 |
|---|---|
| *+ | LCS and/or LCSD is outside acceptance limits, high biased. |
| *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. |
|---|---|
| ¤ | 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: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Job ID: 880-20700-1

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative**
**880-20700-1**

**Receipt**
The samples were received on 10/25/2022 9:36 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 0.1°C

**Receipt Exceptions**
The following samples were received and analyzed from an unpreserved bulk soil jar: H-1 (0-0.5') (880-20700-1), H-2 (0-0.5') (880-20700-2), H-3 (0-0.5') (880-20700-3), H-4 (0-0.5') (880-20700-4), H-5 (0-0.5') (880-20700-5) and H-6 (0-0.5') (880-20700-6).

**GC VOA**
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-38061 and analytical batch 880-38058 was outside the upper control limits.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-38061 and analytical batch 880-38058 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 laboratory control sample (LCS) associated with preparation batch 880-37877 and analytical batch 880-37857 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCSD 880-37877/3-A) and (MB 880-37877/1-A). Evidence of matrix interferences is not obvious.

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

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

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Client Sample ID: H-1 (0-0.5')

**Lab Sample ID: 880-20700-1**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/28/22 09:04 | 10/28/22 15:30 | 1 |
| Toluene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:30 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:30 | 1 |
| m-Xylene & p-Xylene | <0.00401 | U | 0.00401 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:30 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:30 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 15:30* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 15:30* | *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 | | | 10/30/22 22:15 | 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 | | | 10/27/22 09:52 | 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 | | 10/26/22 08:35 | 10/26/22 19:03 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 19:03 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 19:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *103* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 19:03* | *1* |
| *o-Terphenyl* | *113* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 19:03* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.98 | U | 4.98 | | mg/Kg | | | 10/27/22 22:15 | 1 |

## Client Sample ID: H-2 (0-0.5')

**Lab Sample ID: 880-20700-2**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/28/22 09:04 | 10/28/22 15:56 | 1 |
| Toluene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:56 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:56 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:56 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:56 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 15:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *109* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 15:56* | *1* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 15:56* | *1* |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Client Sample ID: H-2 (0-0.5')

**Lab Sample ID: 880-20700-2**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | | 10/30/22 22:15 | 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 | | | 10/27/22 09:52 | 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 | | 10/26/22 08:35 | 10/26/22 19:24 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 19:24 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 19:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *85* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 19:24* | *1* |
| *o-Terphenyl* | *97* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 19:24* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.96 | U | 4.96 | | mg/Kg | | | 10/27/22 22:40 | 1 |

## Client Sample ID: H-3 (0-0.5')

**Lab Sample ID: 880-20700-3**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/28/22 09:04 | 10/28/22 17:51 | 1 |
| Toluene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 17:51 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 17:51 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 17:51 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 17:51 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 17:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 17:51* | *1* |
| *1,4-Difluorobenzene (Surr)* | *90* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 17:51* | *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 | | | 10/30/22 22:15 | 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 | | | 10/27/22 09:52 | 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 | | 10/26/22 08:35 | 10/26/22 19:45 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 19:45 | 1 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Client Sample ID: H-3 (0-0.5')

**Lab Sample ID: 880-20700-3**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 19:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *84* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 19:45* | *1* |
| *o-Terphenyl* | *96* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 19:45* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.99 | U | 4.99 | | mg/Kg | | | 10/27/22 22:48 | 1 |

## Client Sample ID: H-4 (0-0.5')

**Lab Sample ID: 880-20700-4**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/28/22 09:04 | 10/28/22 18:17 | 1 |
| Toluene | <0.00199 | U *- | 0.00199 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:17 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:17 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:17 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:17 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:17 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 18:17* | *1* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 18:17* | *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 | | | 10/30/22 22:15 | 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 | | | 10/27/22 09:52 | 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 | | 10/26/22 08:35 | 10/26/22 20:07 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 20:07 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 20:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *95* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 20:07* | *1* |
| *o-Terphenyl* | *104* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 20:07* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.97 | U | 4.97 | | mg/Kg | | | 10/27/22 22:57 | 1 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Client Sample ID: H-5 (0-0.5')

**Lab Sample ID: 880-20700-5**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/28/22 09:04 | 10/28/22 18:43 | 1 |
| Toluene | <0.00201 | U *- | 0.00201 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:43 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:43 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:43 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:43 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 18:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *111* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 18:43* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 18:43* | *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 | | | 10/30/22 22:15 | 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 | | | 10/27/22 09:52 | 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 *+ *1 | 50.0 | | mg/Kg | | 10/26/22 11:21 | 10/27/22 02:29 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 11:21 | 10/27/22 02:29 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 11:21 | 10/27/22 02:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *87* | | *70 - 130* | *10/26/22 11:21* | *10/27/22 02:29* | *1* |
| *o-Terphenyl* | *99* | | *70 - 130* | *10/26/22 11:21* | *10/27/22 02:29* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **16.5** | | 5.03 | | mg/Kg | | | 10/27/22 23:05 | 1 |

## Client Sample ID: H-6 (0-0.5')

**Lab Sample ID: 880-20700-6**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/28/22 09:04 | 10/28/22 19:09 | 1 |
| Toluene | <0.00200 | U *- | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 19:09 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 19:09 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 19:09 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 19:09 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 19:09 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 19:09* | *1* |
| *1,4-Difluorobenzene (Surr)* | *90* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 19:09* | *1* |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Client Sample ID: H-6 (0-0.5')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

## Lab Sample ID: 880-20700-6

**Matrix: Solid**

### 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 | | | 10/30/22 22:15 | 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 | | | 10/27/22 09:52 | 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 *+ *1 | 49.9 | | mg/Kg | | 10/26/22 11:21 | 10/27/22 02:50 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 11:21 | 10/27/22 02:50 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 11:21 | 10/27/22 02:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *106* | | *70 - 130* | *10/26/22 11:21* | *10/27/22 02:50* | *1* |
| *o-Terphenyl* | *117* | | *70 - 130* | *10/26/22 11:21* | *10/27/22 02:50* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.18 | U | 4.18 | | mg/Kg | | | 10/27/22 23:30 | 1 |

# Surrogate Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## 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) |
| 880-20623-A-84-G MS | Matrix Spike | 99 | 93 |
| 880-20623-A-84-K MSD | Matrix Spike Duplicate | 96 | 92 |
| 880-20700-1 | H-1 (0-0.5') | 101 | 91 |
| 880-20700-2 | H-2 (0-0.5') | 109 | 94 |
| 880-20700-3 | H-3 (0-0.5') | 113 | 90 |
| 880-20700-4 | H-4 (0-0.5') | 113 | 95 |
| 880-20700-5 | H-5 (0-0.5') | 111 | 91 |
| 880-20700-6 | H-6 (0-0.5') | 102 | 90 |
| LCS 880-38061/1-A | Lab Control Sample | 110 | 106 |
| LCSD 880-38061/2-A | Lab Control Sample Dup | 108 | 100 |
| MB 880-38061/6-A | Method Blank | 62 S1- | 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) |
| 880-20700-1 | H-1 (0-0.5') | 103 | 113 |
| 880-20700-2 | H-2 (0-0.5') | 85 | 97 |
| 880-20700-3 | H-3 (0-0.5') | 84 | 96 |
| 880-20700-4 | H-4 (0-0.5') | 95 | 104 |
| 880-20700-5 | H-5 (0-0.5') | 87 | 99 |
| 880-20700-6 | H-6 (0-0.5') | 106 | 117 |
| 890-3271-A-4-C MS | Matrix Spike | 77 | 81 |
| 890-3271-A-4-D MSD | Matrix Spike Duplicate | 78 | 82 |
| 890-3276-A-21-B MS | Matrix Spike | 82 | 84 |
| 890-3276-A-21-C MSD | Matrix Spike Duplicate | 98 | 97 |
| LCS 880-37854/2-A | Lab Control Sample | 90 | 109 |
| LCS 880-37877/2-A | Lab Control Sample | 97 | 118 |
| LCSD 880-37854/3-A | Lab Control Sample Dup | 109 | 126 |
| LCSD 880-37877/3-A | Lab Control Sample Dup | 117 | 137 S1+ |
| MB 880-37854/1-A | Method Blank | 98 | 123 |
| MB 880-37877/1-A | Method Blank | 121 | 146 S1+ |

**Surrogate Legend**

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: MB 880-38061/6-A**
**Matrix: Solid**
**Analysis Batch: 38058**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 38061**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 11:36 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 11:36 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 11:36 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 11:36 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 11:36 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 10/28/22 09:04 | 10/28/22 11:36 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *62* | *S1-* | *70 - 130* | *10/28/22 09:04* | *10/28/22 11:36* | *1* |
| *1,4-Difluorobenzene (Surr)* | *89* | | *70 - 130* | *10/28/22 09:04* | *10/28/22 11:36* | *1* |

**Lab Sample ID: LCS 880-38061/1-A**
**Matrix: Solid**
**Analysis Batch: 38058**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 38061**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.07369 | | mg/Kg | | 74 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.06319 | *- | mg/Kg | | 63 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.07103 | | mg/Kg | | 71 | 70 - 130 | | |
| m-Xylene & p-Xylene | | | 0.200 | 0.1424 | | mg/Kg | | 71 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.07141 | | mg/Kg | | 71 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *110* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *106* | | *70 - 130* |

**Lab Sample ID: LCSD 880-38061/2-A**
**Matrix: Solid**
**Analysis Batch: 38058**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 38061**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.08194 | | mg/Kg | | 82 | 70 - 130 | 11 | 35 |
| Toluene | | | 0.100 | 0.07901 | | mg/Kg | | 79 | 70 - 130 | 22 | 35 |
| Ethylbenzene | | | 0.100 | 0.07690 | | mg/Kg | | 77 | 70 - 130 | 8 | 35 |
| m-Xylene & p-Xylene | | | 0.200 | 0.1545 | | mg/Kg | | 77 | 70 - 130 | 8 | 35 |
| o-Xylene | | | 0.100 | 0.07852 | | mg/Kg | | 79 | 70 - 130 | 9 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *108* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* |

**Lab Sample ID: 880-20623-A-84-G MS**
**Matrix: Solid**
**Analysis Batch: 38058**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 38061**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00199 | U | 0.0998 | 0.07938 | | mg/Kg | | 80 | 70 - 130 | | |
| Toluene | <0.00199 | U *- | 0.0998 | 0.07727 | | mg/Kg | | 77 | 70 - 130 | | |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: 880-20623-A-84-G MS**
**Matrix: Solid**
**Analysis Batch: 38058**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 38061**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00199 | U | 0.0998 | 0.07442 | | mg/Kg | | 75 | 70 - 130 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.200 | 0.1483 | | mg/Kg | | 74 | 70 - 130 |
| o-Xylene | <0.00199 | U | 0.0998 | 0.07325 | | mg/Kg | | 73 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* |

**Lab Sample ID: 880-20623-A-84-K MSD**
**Matrix: Solid**
**Analysis Batch: 38058**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 38061**

| 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 | 0.08035 | | mg/Kg | | 81 | 70 - 130 | 1 | 35 |
| Toluene | <0.00199 | U *- | 0.0990 | 0.07748 | | mg/Kg | | 78 | 70 - 130 | 0 | 35 |
| Ethylbenzene | <0.00199 | U | 0.0990 | 0.07532 | | mg/Kg | | 76 | 70 - 130 | 1 | 35 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.198 | 0.1500 | | mg/Kg | | 76 | 70 - 130 | 1 | 35 |
| o-Xylene | <0.00199 | U | 0.0990 | 0.07389 | | mg/Kg | | 75 | 70 - 130 | 1 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *96* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* |

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

**Lab Sample ID: MB 880-37854/1-A**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 37854**

| 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 | | 10/26/22 08:35 | 10/26/22 09:08 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 09:08 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 08:35 | 10/26/22 09:08 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *98* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 09:08* | *1* |
| *o-Terphenyl* | *123* | | *70 - 130* | *10/26/22 08:35* | *10/26/22 09:08* | *1* |

**Lab Sample ID: LCS 880-37854/2-A**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 37854**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 975.8 | | mg/Kg | | 98 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 1000 | 840.0 | | mg/Kg | | 84 | 70 - 130 |

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# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: LCS 880-37854/2-A**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 37854**

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 90 | | 70 - 130 |
| o-Terphenyl | 109 | | 70 - 130 |

**Lab Sample ID: LCSD 880-37854/3-A**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 37854**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 800.4 | | mg/Kg | | 80 | 70 - 130 | 20 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 939.0 | | mg/Kg | | 94 | 70 - 130 | 11 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 109 | | 70 - 130 |
| o-Terphenyl | 126 | | 70 - 130 |

**Lab Sample ID: 890-3271-A-4-C MS**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 37854**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.8 | U | 998 | 1099 | | mg/Kg | | 108 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 998 | 932.0 | | mg/Kg | | 92 | 70 - 130 | | |

| Surrogate | MS %Recovery | MS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 77 | | 70 - 130 |
| o-Terphenyl | 81 | | 70 - 130 |

**Lab Sample ID: 890-3271-A-4-D MSD**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 37854**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.8 | U | 998 | 1173 | | mg/Kg | | 115 | 70 - 130 | 7 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 998 | 942.1 | | mg/Kg | | 93 | 70 - 130 | 1 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 78 | | 70 - 130 |
| o-Terphenyl | 82 | | 70 - 130 |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: MB 880-37877/1-A**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 37877**

| 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 | | 10/26/22 11:21 | 10/26/22 20:49 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 11:21 | 10/26/22 20:49 | 1 |
| Oil Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 11:21 | 10/26/22 20:49 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *121* | | *70 - 130* | *10/26/22 11:21* | *10/26/22 20:49* | *1* |
| *o-Terphenyl* | *146* | *S1+* | *70 - 130* | *10/26/22 11:21* | *10/26/22 20:49* | *1* |

**Lab Sample ID: LCS 880-37877/2-A**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 37877**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 1077 | | mg/Kg | | 108 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 1000 | 1003 | | mg/Kg | | 100 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *97* | | *70 - 130* |
| *o-Terphenyl* | *118* | | *70 - 130* |

**Lab Sample ID: LCSD 880-37877/3-A**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 37877**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | 1000 | 1328 | *+ *1 | mg/Kg | | 133 | 70 - 130 | 21 | 20 |
| Diesel Range Organics (Over C10-C28) | 1000 | 1159 | | mg/Kg | | 116 | 70 - 130 | 14 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *117* | | *70 - 130* |
| *o-Terphenyl* | *137* | *S1+* | *70 - 130* |

**Lab Sample ID: 890-3276-A-21-B MS**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 37877**

| 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 *+ *1 | 998 | 1122 | | mg/Kg | | 110 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 998 | 938.0 | | mg/Kg | | 94 | 70 - 130 |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: 890-3276-A-21-B MS**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 37877**

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

**Lab Sample ID: 890-3276-A-21-C MSD**
**Matrix: Solid**
**Analysis Batch: 37857**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 37877**

| 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 *+ *1 | 998 | 937.6 | | mg/Kg | | 91 | 70 - 130 | 18 | 20 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 998 | 1117 | | mg/Kg | | 112 | 70 - 130 | 17 | 20 |

| Surrogate | MSD %Recovery | MSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 98 | | 70 - 130 |
| o-Terphenyl | 97 | | 70 - 130 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-37837/1-A**
**Matrix: Solid**
**Analysis Batch: 38045**

**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 | | | 10/27/22 21:50 | 1 |

**Lab Sample ID: LCS 880-37837/2-A**
**Matrix: Solid**
**Analysis Batch: 38045**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 250 | 252.5 | | mg/Kg | | 101 | 90 - 110 |

**Lab Sample ID: LCSD 880-37837/3-A**
**Matrix: Solid**
**Analysis Batch: 38045**

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 250 | 255.1 | | mg/Kg | | 102 | 90 - 110 | 1 | 20 |

**Lab Sample ID: 880-20700-1 MS**
**Matrix: Solid**
**Analysis Batch: 38045**

**Client Sample ID: H-1 (0-0.5')**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.98 | U | 249 | 246.5 | | mg/Kg | | 98 | 90 - 110 |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 880-20700-1 MSD**
**Matrix: Solid**
**Analysis Batch: 38045**

**Client Sample ID: H-1 (0-0.5')**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.98 | U | 249 | 247.6 | | mg/Kg | | 99 | 90 - 110 | 0 | 20 |

# QC Association Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## GC VOA

### Analysis Batch: 38058

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Total/NA | Solid | 8021B | 38061 |
| 880-20700-2 | H-2 (0-0.5') | Total/NA | Solid | 8021B | 38061 |
| 880-20700-3 | H-3 (0-0.5') | Total/NA | Solid | 8021B | 38061 |
| 880-20700-4 | H-4 (0-0.5') | Total/NA | Solid | 8021B | 38061 |
| 880-20700-5 | H-5 (0-0.5') | Total/NA | Solid | 8021B | 38061 |
| 880-20700-6 | H-6 (0-0.5') | Total/NA | Solid | 8021B | 38061 |
| MB 880-38061/6-A | Method Blank | Total/NA | Solid | 8021B | 38061 |
| LCS 880-38061/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 38061 |
| LCSD 880-38061/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 38061 |
| 880-20623-A-84-G MS | Matrix Spike | Total/NA | Solid | 8021B | 38061 |
| 880-20623-A-84-K MSD | Matrix Spike Duplicate | Total/NA | Solid | 8021B | 38061 |

### Prep Batch: 38061

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Total/NA | Solid | 5035 | |
| 880-20700-2 | H-2 (0-0.5') | Total/NA | Solid | 5035 | |
| 880-20700-3 | H-3 (0-0.5') | Total/NA | Solid | 5035 | |
| 880-20700-4 | H-4 (0-0.5') | Total/NA | Solid | 5035 | |
| 880-20700-5 | H-5 (0-0.5') | Total/NA | Solid | 5035 | |
| 880-20700-6 | H-6 (0-0.5') | Total/NA | Solid | 5035 | |
| MB 880-38061/6-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-38061/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-38061/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-20623-A-84-G MS | Matrix Spike | Total/NA | Solid | 5035 | |
| 880-20623-A-84-K MSD | Matrix Spike Duplicate | Total/NA | Solid | 5035 | |

### Analysis Batch: 38196

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Total/NA | Solid | Total BTEX | |
| 880-20700-2 | H-2 (0-0.5') | Total/NA | Solid | Total BTEX | |
| 880-20700-3 | H-3 (0-0.5') | Total/NA | Solid | Total BTEX | |
| 880-20700-4 | H-4 (0-0.5') | Total/NA | Solid | Total BTEX | |
| 880-20700-5 | H-5 (0-0.5') | Total/NA | Solid | Total BTEX | |
| 880-20700-6 | H-6 (0-0.5') | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Prep Batch: 37854

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20700-2 | H-2 (0-0.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20700-3 | H-3 (0-0.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20700-4 | H-4 (0-0.5') | Total/NA | Solid | 8015NM Prep | |
| MB 880-37854/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-37854/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-37854/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 890-3271-A-4-C MS | Matrix Spike | Total/NA | Solid | 8015NM Prep | |
| 890-3271-A-4-D MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## GC Semi VOA

### Analysis Batch: 37857

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Total/NA | Solid | 8015B NM | 37854 |
| 880-20700-2 | H-2 (0-0.5') | Total/NA | Solid | 8015B NM | 37854 |
| 880-20700-3 | H-3 (0-0.5') | Total/NA | Solid | 8015B NM | 37854 |
| 880-20700-4 | H-4 (0-0.5') | Total/NA | Solid | 8015B NM | 37854 |
| 880-20700-5 | H-5 (0-0.5') | Total/NA | Solid | 8015B NM | 37877 |
| 880-20700-6 | H-6 (0-0.5') | Total/NA | Solid | 8015B NM | 37877 |
| MB 880-37854/1-A | Method Blank | Total/NA | Solid | 8015B NM | 37854 |
| MB 880-37877/1-A | Method Blank | Total/NA | Solid | 8015B NM | 37877 |
| LCS 880-37854/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 37854 |
| LCS 880-37877/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 37877 |
| LCSD 880-37854/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 37854 |
| LCSD 880-37877/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 37877 |
| 890-3271-A-4-C MS | Matrix Spike | Total/NA | Solid | 8015B NM | 37854 |
| 890-3271-A-4-D MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015B NM | 37854 |
| 890-3276-A-21-B MS | Matrix Spike | Total/NA | Solid | 8015B NM | 37877 |
| 890-3276-A-21-C MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015B NM | 37877 |

### Prep Batch: 37877

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-5 | H-5 (0-0.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20700-6 | H-6 (0-0.5') | Total/NA | Solid | 8015NM Prep | |
| MB 880-37877/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-37877/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-37877/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 890-3276-A-21-B MS | Matrix Spike | Total/NA | Solid | 8015NM Prep | |
| 890-3276-A-21-C MSD | Matrix Spike Duplicate | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 37988

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Total/NA | Solid | 8015 NM | |
| 880-20700-2 | H-2 (0-0.5') | Total/NA | Solid | 8015 NM | |
| 880-20700-3 | H-3 (0-0.5') | Total/NA | Solid | 8015 NM | |
| 880-20700-4 | H-4 (0-0.5') | Total/NA | Solid | 8015 NM | |
| 880-20700-5 | H-5 (0-0.5') | Total/NA | Solid | 8015 NM | |
| 880-20700-6 | H-6 (0-0.5') | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 37837

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Soluble | Solid | DI Leach | |
| 880-20700-2 | H-2 (0-0.5') | Soluble | Solid | DI Leach | |
| 880-20700-3 | H-3 (0-0.5') | Soluble | Solid | DI Leach | |
| 880-20700-4 | H-4 (0-0.5') | Soluble | Solid | DI Leach | |
| 880-20700-5 | H-5 (0-0.5') | Soluble | Solid | DI Leach | |
| 880-20700-6 | H-6 (0-0.5') | Soluble | Solid | DI Leach | |
| MB 880-37837/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-37837/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-37837/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-20700-1 MS | H-1 (0-0.5') | Soluble | Solid | DI Leach | |
| 880-20700-1 MSD | H-1 (0-0.5') | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## HPLC/IC

### Analysis Batch: 38045

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Soluble | Solid | 300.0 | 37837 |
| 880-20700-2 | H-2 (0-0.5') | Soluble | Solid | 300.0 | 37837 |
| 880-20700-3 | H-3 (0-0.5') | Soluble | Solid | 300.0 | 37837 |
| 880-20700-4 | H-4 (0-0.5') | Soluble | Solid | 300.0 | 37837 |
| 880-20700-5 | H-5 (0-0.5') | Soluble | Solid | 300.0 | 37837 |
| 880-20700-6 | H-6 (0-0.5') | Soluble | Solid | 300.0 | 37837 |
| MB 880-37837/1-A | Method Blank | Soluble | Solid | 300.0 | 37837 |
| LCS 880-37837/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 37837 |
| LCSD 880-37837/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 37837 |
| 880-20700-1 MS | H-1 (0-0.5') | Soluble | Solid | 300.0 | 37837 |
| 880-20700-1 MSD | H-1 (0-0.5') | Soluble | Solid | 300.0 | 37837 |

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Client Sample ID: H-1 (0-0.5')

**Lab Sample ID: 880-20700-1**

**Date Collected: 10/24/22 00:00**
**Matrix: Solid**
**Date Received: 10/25/22 09:36**

| 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 | 38061 | 10/28/22 09:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38058 | 10/28/22 15:30 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38196 | 10/30/22 22:15 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 37988 | 10/27/22 09:52 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37854 | 10/26/22 08:35 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 37857 | 10/26/22 19:03 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 37837 | 10/25/22 16:10 | SMC | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38045 | 10/27/22 22:15 | CH | EET MID |

## Client Sample ID: H-2 (0-0.5')

**Lab Sample ID: 880-20700-2**

**Date Collected: 10/24/22 00:00**
**Matrix: Solid**
**Date Received: 10/25/22 09:36**

| 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 | 38061 | 10/28/22 09:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38058 | 10/28/22 15:56 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38196 | 10/30/22 22:15 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 37988 | 10/27/22 09:52 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 37854 | 10/26/22 08:35 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 37857 | 10/26/22 19:24 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 37837 | 10/25/22 16:10 | SMC | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38045 | 10/27/22 22:40 | CH | EET MID |

## Client Sample ID: H-3 (0-0.5')

**Lab Sample ID: 880-20700-3**

**Date Collected: 10/24/22 00:00**
**Matrix: Solid**
**Date Received: 10/25/22 09:36**

| 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 | 38061 | 10/28/22 09:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38058 | 10/28/22 17:51 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38196 | 10/30/22 22:15 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 37988 | 10/27/22 09:52 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 37854 | 10/26/22 08:35 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 37857 | 10/26/22 19:45 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 37837 | 10/25/22 16:10 | SMC | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38045 | 10/27/22 22:48 | CH | EET MID |

## Client Sample ID: H-4 (0-0.5')

**Lab Sample ID: 880-20700-4**

**Date Collected: 10/24/22 00:00**
**Matrix: Solid**
**Date Received: 10/25/22 09:36**

| 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 | 38061 | 10/28/22 09:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38058 | 10/28/22 18:17 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38196 | 10/30/22 22:15 | SM | EET MID |

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Client Sample ID: H-4 (0-0.5')

**Lab Sample ID: 880-20700-4**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | | | 37988 | 10/27/22 09:52 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37854 | 10/26/22 08:35 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 37857 | 10/26/22 20:07 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 37837 | 10/25/22 16:10 | SMC | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38045 | 10/27/22 22:57 | CH | EET MID |

## Client Sample ID: H-5 (0-0.5')

**Lab Sample ID: 880-20700-5**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38061 | 10/28/22 09:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38058 | 10/28/22 18:43 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38196 | 10/30/22 22:15 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 37988 | 10/27/22 09:52 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 37877 | 10/26/22 11:21 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 37857 | 10/27/22 02:29 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 4.97 g | 50 mL | 37837 | 10/25/22 16:10 | SMC | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38045 | 10/27/22 23:05 | CH | EET MID |

## Client Sample ID: H-6 (0-0.5')

**Lab Sample ID: 880-20700-6**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38061 | 10/28/22 09:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38058 | 10/28/22 19:09 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38196 | 10/30/22 22:15 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 37988 | 10/27/22 09:52 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 37877 | 10/26/22 11:21 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 37857 | 10/27/22 02:50 | SM | EET MID |
| Soluble | Leach | DI Leach | | | 5.98 g | 50 mL | 37837 | 10/25/22 16:10 | SMC | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38045 | 10/27/22 23:30 | CH | EET MID |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

## Laboratory: Eurofins Midland

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

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

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

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

# Method Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

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

**Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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

# Sample Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20700-1
SDG: Eddy County, New Mexico

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-20700-1 | H-1 (0-0.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20700-2 | H-2 (0-0.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20700-3 | H-3 (0-0.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20700-4 | H-4 (0-0.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20700-5 | H-5 (0-0.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20700-6 | H-6 (0-0.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |

Work Order No: 20700



Page 1 of 1

| | | | |
|---|---|---|---|
| Project Manager | Conner Moehring | Bill to (if different) | Grant Huckabay |
| Company Name | Carmona Resources | Company Name | Fasken Oil and Ranch |
| Address. | 310 W Wall St Ste 415 | Address | 6101 Holiday Hill Road |
| City, State ZIP | Midland, TX 79701 | City, State ZIP | Midland, Texas 79707 |
| Phone | 432-813-6823 | Email | Granth@forl.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables. EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name | Shell Federal | Turn Around | |
| Project Number | 1155 | ☑ Routine ☐ Rush | |
| Project Location | Eddy County, New Mexico | Due Date | |
| Sampler's Name. | CRM | | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank. | Yes No | Wet Ice | Yes No | |
| Received Intact: | Yes No | Thermometer ID | | FB |
| Cooler Custody Seals | Yes No N/A | Correction Factor | | -.3 |
| Sample Custody Seals | Yes No N/A | Temperature Reading | | 0.4 |
| Total Containers | | Corrected Temperature | | 0.1 |

**Preservative Codes**

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

| Sample Identification | Date | Time | Soil | Water | Grab/ Comp | # of Cont | Pres. Code | BTEX 8021B | TPH 8015M ( GRO + DRO + MRO) | Chloride 300.0 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| H-1 (0-0 5') | 10/24/2022 | | X | | G | 1 | | X | X | X | 4oz jar |
| H-2 (0-0.5') | 10/24/2022 | | X | | G | 1 | | X | X | X | |
| H-3 (0-0.5') | 10/24/2022 | | X | | G | 1 | | X | X | X | |
| H-4 (0-0 5') | 10/24/2022 | | X | | G | 1 | | X | X | X | |
| H-5 (0-0 5') | 10/24/2022 | | X | | G | 1 | | X | X | X | |
| H-6 (0-0 5') | 10/24/2022 | | X | | G | 1 | | X | X | X | |

880-20700 Chain of Custody

Comments:

| Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time |
|---|---|---|---|
| Commpany | 10/25/22 936 | | |
| | | | |
| | | | |

# Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-20700-1
SDG Number: Eddy County, New Mexico

**Login Number: 20700**
**List Number: 1**
**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

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

eurofins | Environment Testing

# ANALYTICAL REPORT

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

Laboratory Job ID: 880-20701-1
Laboratory Sample Delivery Group: Eddy County, New Mexico
Client Project/Site: Shell Federal

For:
Carmona Resources
310 W Wall St
Ste 415
Midland, Texas 79701

Attn: Mike Carmona

JKramer

*Authorized for release by:*
*10/31/2022 4:43:16 PM*

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

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

Client: Carmona Resources
Project/Site: Shell Federal

Laboratory Job ID: 880-20701-1
SDG: Eddy County, New Mexico

# Table of Contents

# Definitions/Glossary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Qualifiers

### GC 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. |

### GC Semi VOA

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

### HPLC/IC

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

## Glossary

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

# Case Narrative

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Job ID: 880-20701-1

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative**
**880-20701-1**

**Receipt**
The samples were received on 10/25/2022 9:36 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 0.1°C

**Receipt Exceptions**
The following samples were received and analyzed from an unpreserved bulk soil jar: S-1 (0-1') (880-20701-1), S-1 (1.5') (880-20701-2), S-1 (2') (880-20701-3), S-2 (0-1') (880-20701-4), S-2 (1.5') (880-20701-5), S-2 (2') (880-20701-6), S-2 (3') (880-20701-7), S-3 (0-1') (880-20701-8), S-3 (1.5') (880-20701-9), S-3 (2') (880-20701-10), S-3 (3') (880-20701-11), S-4 (0-1') (880-20701-12), S-4 (1.5') (880-20701-13), S-4 (2') (880-20701-14), S-4 (3') (880-20701-15), S-4 (4') (880-20701-16), S-5 (0-1') (880-20701-17), S-5 (1.5') (880-20701-18), S-5 (2') (880-20701-19) and S-5 (3') (880-20701-20).

**GC VOA**
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-38029 and analytical batch 880-38173 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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

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

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-1 (0-1')

**Lab Sample ID: 880-20701-1**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.201 | U | 0.201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 16:09 | 100 |
| Toluene | <0.201 | U | 0.201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 16:09 | 100 |
| Ethylbenzene | <0.201 | U | 0.201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 16:09 | 100 |
| m-Xylene & p-Xylene | <0.402 | U | 0.402 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 16:09 | 100 |
| o-Xylene | <0.201 | U | 0.201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 16:09 | 100 |
| Xylenes, Total | <0.402 | U | 0.402 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 16:09 | 100 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *75* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 16:09* | *100* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 16:09* | *100* |

### Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total BTEX | <0.402 | U | 0.402 | | mg/Kg | | | 10/31/22 10:07 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **91.2** | | 49.8 | | mg/Kg | | | 10/31/22 14:18 | 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 | <49.8 | U | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 22:18 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **91.2** | | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 22:18 | 1 |
| Oil Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 22:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *110* | | *70 - 130* | *10/26/22 16:08* | *10/28/22 22:18* | *1* |
| *o-Terphenyl* | *106* | | *70 - 130* | *10/26/22 16:08* | *10/28/22 22:18* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **18300** | | 248 | | mg/Kg | | | 10/27/22 17:22 | 50 |

## Client Sample ID: S-1 (1.5')

**Lab Sample ID: 880-20701-2**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U F1 F2 | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:05 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:05 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:05 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U F1 F2 | 0.00396 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:05 | 1 |
| o-Xylene | <0.00198 | U F2 | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:05 | 1 |
| Xylenes, Total | <0.00396 | U F1 F2 | 0.00396 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *86* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 13:05* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 13:05* | *1* |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-1 (1.5')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-2**
**Matrix: Solid**

### 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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 23:22 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 23:22 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 23:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *90* | | *70 - 130* | *10/26/22 16:08* | *10/28/22 23:22* | *1* |
| *o-Terphenyl* | *89* | | *70 - 130* | *10/26/22 16:08* | *10/28/22 23:22* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **163** | | 4.99 | | mg/Kg | | | 10/27/22 17:47 | 1 |

## Client Sample ID: S-1 (2')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-3**
**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 | | 10/27/22 15:04 | 10/30/22 13:26 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:26 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:26 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:26 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:26 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 13:26* | *1* |
| *1,4-Difluorobenzene (Surr)* | *99* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 13:26* | *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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.8 | U | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 23:44 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 23:44 | 1 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-1 (2')

**Lab Sample ID: 880-20701-3**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 23:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *113* | | *70 - 130* | *10/26/22 16:08* | *10/28/22 23:44* | *1* |
| *o-Terphenyl* | *111* | | *70 - 130* | *10/26/22 16:08* | *10/28/22 23:44* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **120** | | 4.95 | | mg/Kg | | | 10/27/22 17:56 | 1 |

## Client Sample ID: S-2 (0-1')

**Lab Sample ID: 880-20701-4**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/27/22 15:04 | 10/30/22 13:46 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:46 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:46 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:46 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:46 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 13:46 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 13:46* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 13:46* | *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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:05 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:05 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *98* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 00:05* | *1* |
| *o-Terphenyl* | *95* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 00:05* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2240** | | 50.5 | | mg/Kg | | | 10/27/22 18:04 | 10 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-2 (1.5')

**Lab Sample ID: 880-20701-5**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Benzene** | **0.00275** | | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:07 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:07 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:07 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:07 | 1 |
| **o-Xylene** | **0.00232** | | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:07 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 14:07* | *1* |
| *1,4-Difluorobenzene (Surr)* | *113* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 14:07* | *1* |

### Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total BTEX** | **0.00507** | | 0.00398 | | mg/Kg | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:26 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:26 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *116* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 00:26* | *1* |
| *o-Terphenyl* | *113* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 00:26* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2270** | | 50.0 | | mg/Kg | | | 10/27/22 18:12 | 10 |

## Client Sample ID: S-2 (2')

**Lab Sample ID: 880-20701-6**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/27/22 15:04 | 10/30/22 14:27 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:27 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:27 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:27 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:27 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *96* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 14:27* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 14:27* | *1* |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-2 (2')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-6**
**Matrix: Solid**

### 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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:48 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:48 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 00:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *101* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 00:48* | *1* |
| *o-Terphenyl* | *99* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 00:48* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1540** | | 24.9 | | mg/Kg | | | 10/27/22 18:37 | 5 |

## Client Sample ID: S-2 (3')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-7**
**Matrix: Solid**

### 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 | | 10/27/22 15:04 | 10/30/22 14:48 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:48 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:48 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:48 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:48 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 14:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 14:48* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 14:48* | *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 | | | 10/31/22 10:07 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 10/31/22 14:18 | 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 | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:10 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:10 | 1 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-2 (3')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-7**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *95* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 01:10* | *1* |
| *o-Terphenyl* | *93* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 01:10* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1150** | | 24.8 | | mg/Kg | | | 10/27/22 18:46 | 5 |

## Client Sample ID: S-3 (0-1')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-8**
**Matrix: Solid**

### 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 | | 10/27/22 15:04 | 10/30/22 15:08 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:08 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:08 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U | 0.00396 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:08 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:08 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *83* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 15:08* | *1* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 15:08* | *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 | | | 10/31/22 10:07 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **315** | | 50.0 | | mg/Kg | | | 10/31/22 14:18 | 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 | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:31 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **315** | | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:31 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:31 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *99* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 01:31* | *1* |
| *o-Terphenyl* | *96* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 01:31* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **14300** | | 101 | | mg/Kg | | | 10/27/22 18:54 | 20 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-3 (1.5')

**Lab Sample ID: 880-20701-9**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/27/22 15:04 | 10/30/22 15:28 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:28 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:28 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:28 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:28 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:28 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *119* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 15:28* | *1* |
| *1,4-Difluorobenzene (Surr)* | *119* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 15:28* | *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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.8 | U | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:53 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.8 | U | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:53 | 1 |
| OII Range Organics (Over C28-C36) | <49.8 | U | 49.8 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 01:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *97* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 01:53* | *1* |
| *o-Terphenyl* | *96* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 01:53* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **10100** | | 100 | | mg/Kg | | | 10/27/22 19:03 | 20 |

## Client Sample ID: S-3 (2')

**Lab Sample ID: 880-20701-10**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/27/22 15:04 | 10/30/22 15:49 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:49 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:49 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:49 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:49 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 15:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 15:49* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 15:49* | *1* |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-3 (2')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-10**
**Matrix: Solid**

### 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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 02:15 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 02:15 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 02:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *120* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 02:15* | *1* |
| *o-Terphenyl* | *115* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 02:15* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **3310** | | 25.0 | | mg/Kg | | | 10/27/22 19:11 | 5 |

## Client Sample ID: S-3 (3')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-11**
**Matrix: Solid**

### 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 | | 10/27/22 15:04 | 10/30/22 17:59 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 17:59 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 17:59 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 17:59 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 17:59 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 17:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *113* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 17:59* | *1* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 17:59* | *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 | | | 10/31/22 10:07 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 10/31/22 14:18 | 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 | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 02:59 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 02:59 | 1 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-3 (3')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-11**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 02:59 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *114* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 02:59* | *1* |
| *o-Terphenyl* | *110* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 02:59* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **160** | | 5.00 | | mg/Kg | | | 10/27/22 19:19 | 1 |

## Client Sample ID: S-4 (0-1')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-12**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.0992 | U | 0.0992 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 21:03 | 50 |
| Toluene | <0.0992 | U | 0.0992 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 21:03 | 50 |
| **Ethylbenzene** | **0.106** | | 0.0992 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 21:03 | 50 |
| m-Xylene & p-Xylene | <0.198 | U | 0.198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 21:03 | 50 |
| **o-Xylene** | **0.439** | | 0.0992 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 21:03 | 50 |
| **Xylenes, Total** | **0.439** | | 0.198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 21:03 | 50 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *60* | *S1-* | *70 - 130* | *10/27/22 15:04* | *10/30/22 21:03* | *50* |
| *1,4-Difluorobenzene (Surr)* | *83* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 21:03* | *50* |

### Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total BTEX** | **0.545** | | 0.198 | | mg/Kg | | | 10/31/22 10:07 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total TPH** | **2780** | | 50.0 | | mg/Kg | | | 10/31/22 14:18 | 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** | **170** | | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 03:21 | 1 |
| **Diesel Range Organics (Over C10-C28)** | **2610** | | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 03:21 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 03:21 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *105* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 03:21* | *1* |
| *o-Terphenyl* | *104* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 03:21* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **4330** | | 99.6 | | mg/Kg | | | 10/27/22 19:44 | 20 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-4 (1.5')

**Lab Sample ID: 880-20701-13**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/27/22 15:04 | 10/30/22 18:19 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:19 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:19 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:19 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:19 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:19 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *93* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 18:19* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 18:19* | *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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 03:43 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 03:43 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 03:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *95* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 03:43* | *1* |
| *o-Terphenyl* | *94* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 03:43* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **10400** | | 101 | | mg/Kg | | | 10/27/22 19:53 | 20 |

## Client Sample ID: S-4 (2')

**Lab Sample ID: 880-20701-14**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/27/22 15:04 | 10/30/22 18:40 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:40 | 1 |
| **Ethylbenzene** | **0.00340** | | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:40 | 1 |
| **m-Xylene & p-Xylene** | **0.00801** | | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:40 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:40 | 1 |
| **Xylenes, Total** | **0.00801** | | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 18:40 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *109* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 18:40* | *1* |
| *1,4-Difluorobenzene (Surr)* | *120* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 18:40* | *1* |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-4 (2')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-14**
**Matrix: Solid**

### Method: TAL SOP Total BTEX - Total BTEX Calculation

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Total BTEX** | **0.0114** | | 0.00398 | | mg/Kg | | | 10/31/22 10:07 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 10/31/22 14:18 | 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 | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:05 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:05 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *91* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 04:05* | *1* |
| *o-Terphenyl* | *90* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 04:05* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **12400** | | 250 | | mg/Kg | | | 10/27/22 20:18 | 50 |

## Client Sample ID: S-4 (3')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-15**
**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 | | 10/27/22 15:04 | 10/30/22 19:00 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:00 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:00 | 1 |
| m-Xylene & p-Xylene | <0.00401 | U | 0.00401 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:00 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:00 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:00 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *78* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 19:00* | *1* |
| *1,4-Difluorobenzene (Surr)* | *93* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 19:00* | *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 | | | 10/31/22 10:07 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 10/31/22 14:18 | 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 | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:27 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:27 | 1 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-4 (3')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-15**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:27 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *95* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 04:27* | *1* |
| *o-Terphenyl* | *93* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 04:27* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **8490** | | 99.2 | | mg/Kg | | | 10/27/22 20:26 | 20 |

## Client Sample ID: S-4 (4')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-16**
**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 | | 10/31/22 09:15 | 10/31/22 12:03 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:03 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:03 | 1 |
| m-Xylene & p-Xylene | <0.00401 | U | 0.00401 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:03 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:03 | 1 |
| Xylenes, Total | <0.00401 | U | 0.00401 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *44* | *S1-* | *70 - 130* | *10/31/22 09:15* | *10/31/22 12:03* | *1* |
| *1,4-Difluorobenzene (Surr)* | *77* | | *70 - 130* | *10/31/22 09:15* | *10/31/22 12:03* | *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 | | | 10/31/22 15:09 | 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 | | | 10/31/22 14:18 | 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 | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:49 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:49 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 04:49 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *91* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 04:49* | *1* |
| *o-Terphenyl* | *91* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 04:49* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **182** | | 25.0 | | mg/Kg | | | 10/27/22 20:35 | 5 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-5 (0-1')

**Lab Sample ID: 880-20701-17**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/27/22 15:04 | 10/30/22 19:41 | 1 |
| **Toluene** | **0.00256** | | 0.00201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:41 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:41 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:41 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:41 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 19:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 19:41* | *1* |
| *1,4-Difluorobenzene (Surr)* | *113* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 19:41* | *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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:11 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:11 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:11 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *96* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 05:11* | *1* |
| *o-Terphenyl* | *97* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 05:11* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2450** | | 49.9 | | mg/Kg | | | 10/27/22 20:43 | 10 |

## Client Sample ID: S-5 (1.5')

**Lab Sample ID: 880-20701-18**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

### 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 | | 10/27/22 15:04 | 10/30/22 20:01 | 1 |
| Toluene | <0.00198 | U | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:01 | 1 |
| Ethylbenzene | <0.00198 | U | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:01 | 1 |
| m-Xylene & p-Xylene | <0.00396 | U | 0.00396 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:01 | 1 |
| o-Xylene | <0.00198 | U | 0.00198 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:01 | 1 |
| Xylenes, Total | <0.00396 | U | 0.00396 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 20:01* | *1* |
| *1,4-Difluorobenzene (Surr)* | *96* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 20:01* | *1* |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-5 (1.5')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-18**
**Matrix: Solid**

### 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 | | | 10/31/22 10:07 | 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 | | | 10/31/22 14:18 | 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 | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:33 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:33 | 1 |
| Oil Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *86* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 05:33* | *1* |
| *o-Terphenyl* | *87* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 05:33* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **2150** | | 25.0 | | mg/Kg | | | 10/27/22 20:51 | 5 |

## Client Sample ID: S-5 (2')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-19**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Benzene** | **0.00253** | | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:22 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:22 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:22 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:22 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:22 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 20:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *105* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 20:22* | *1* |
| *1,4-Difluorobenzene (Surr)* | *108* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 20:22* | *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 | | | 10/31/22 10:07 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 10/31/22 14:18 | 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 | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:54 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:54 | 1 |

# Client Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-5 (2')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-19**
**Matrix: Solid**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 05:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *94* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 05:54* | *1* |
| *o-Terphenyl* | *96* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 05:54* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1600** | | 24.9 | | mg/Kg | | | 10/27/22 21:00 | 5 |

## Client Sample ID: S-5 (3')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-20**
**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 | | 10/31/22 09:15 | 10/31/22 12:24 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:24 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:24 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:24 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:24 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 12:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *51* | *S1-* | *70 - 130* | *10/31/22 09:15* | *10/31/22 12:24* | *1* |
| *1,4-Difluorobenzene (Surr)* | *79* | | *70 - 130* | *10/31/22 09:15* | *10/31/22 12:24* | *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 | | | 10/31/22 15:09 | 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 | | | 10/31/22 14:18 | 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 | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 06:16 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 06:16 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/29/22 06:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *92* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 06:16* | *1* |
| *o-Terphenyl* | *95* | | *70 - 130* | *10/26/22 16:08* | *10/29/22 06:16* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **1160** | | 25.2 | | mg/Kg | | | 10/27/22 21:08 | 5 |

# Surrogate Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## 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) |
| 880-20701-1 | S-1 (0-1') | 75 | 96 |
| 880-20701-2 | S-1 (1.5') | 86 | 96 |
| 880-20701-2 MS | S-1 (1.5') | 138 S1+ | 104 |
| 880-20701-2 MSD | S-1 (1.5') | 83 | 95 |
| 880-20701-3 | S-1 (2') | 90 | 99 |
| 880-20701-4 | S-2 (0-1') | 101 | 103 |
| 880-20701-5 | S-2 (1.5') | 102 | 113 |
| 880-20701-6 | S-2 (2') | 96 | 97 |
| 880-20701-7 | S-2 (3') | 98 | 96 |
| 880-20701-8 | S-3 (0-1') | 83 | 98 |
| 880-20701-9 | S-3 (1.5') | 119 | 119 |
| 880-20701-10 | S-3 (2') | 95 | 96 |
| 880-20701-11 | S-3 (3') | 113 | 92 |
| 880-20701-12 | S-4 (0-1') | 60 S1- | 83 |
| 880-20701-13 | S-4 (1.5') | 93 | 97 |
| 880-20701-14 | S-4 (2') | 109 | 120 |
| 880-20701-15 | S-4 (3') | 78 | 93 |
| 880-20701-16 | S-4 (4') | 44 S1- | 77 |
| 880-20701-17 | S-5 (0-1') | 98 | 113 |
| 880-20701-18 | S-5 (1.5') | 104 | 96 |
| 880-20701-19 | S-5 (2') | 105 | 108 |
| 880-20701-20 | S-5 (3') | 51 S1- | 79 |
| 890-3303-A-2-B MS | Matrix Spike | 105 | 102 |
| 890-3303-A-2-C MSD | Matrix Spike Duplicate | 95 | 95 |
| LCS 880-38029/1-A | Lab Control Sample | 89 | 92 |
| LCS 880-38223/1-A | Lab Control Sample | 97 | 97 |
| LCSD 880-38029/2-A | Lab Control Sample Dup | 72 | 94 |
| LCSD 880-38223/2-A | Lab Control Sample Dup | 95 | 98 |
| MB 880-38029/5-A | Method Blank | 114 | 103 |
| MB 880-38223/5-A | Method Blank | 99 | 91 |

**Surrogate Legend**

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

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO1 (70-130) | OTPH1 (70-130) |
| 880-20701-1 | S-1 (0-1') | 110 | 106 |
| 880-20701-1 MS | S-1 (0-1') | 114 | 91 |
| 880-20701-1 MSD | S-1 (0-1') | 85 | 79 |
| 880-20701-2 | S-1 (1.5') | 90 | 89 |
| 880-20701-3 | S-1 (2') | 113 | 111 |
| 880-20701-4 | S-2 (0-1') | 98 | 95 |
| 880-20701-5 | S-2 (1.5') | 116 | 113 |
| 880-20701-6 | S-2 (2') | 101 | 99 |
| 880-20701-7 | S-2 (3') | 95 | 93 |

# Surrogate Summary

Client: Carmona Resources
Job ID: 880-20701-1
Project/Site: Shell Federal
SDG: Eddy County, New Mexico

## 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) | | | | | | | | |
| 880-20701-8 | S-3 (0-1') | 99 | 96 | | | | | | | | |
| 880-20701-9 | S-3 (1.5') | 97 | 96 | | | | | | | | |
| 880-20701-10 | S-3 (2') | 120 | 115 | | | | | | | | |
| 880-20701-11 | S-3 (3') | 114 | 110 | | | | | | | | |
| 880-20701-12 | S-4 (0-1') | 105 | 104 | | | | | | | | |
| 880-20701-13 | S-4 (1.5') | 95 | 94 | | | | | | | | |
| 880-20701-14 | S-4 (2') | 91 | 90 | | | | | | | | |
| 880-20701-15 | S-4 (3') | 95 | 93 | | | | | | | | |
| 880-20701-16 | S-4 (4') | 91 | 91 | | | | | | | | |
| 880-20701-17 | S-5 (0-1') | 96 | 97 | | | | | | | | |
| 880-20701-18 | S-5 (1.5') | 86 | 87 | | | | | | | | |
| 880-20701-19 | S-5 (2') | 94 | 96 | | | | | | | | |
| 880-20701-20 | S-5 (3') | 92 | 95 | | | | | | | | |
| LCS 880-37942/2-A | Lab Control Sample | 125 | 105 | | | | | | | | |
| LCSD 880-37942/3-A | Lab Control Sample Dup | 124 | 102 | | | | | | | | |
| MB 880-37942/1-A | Method Blank | 84 | 85 | | | | | | | | |

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: MB 880-38029/5-A**
**Matrix: Solid**
**Analysis Batch: 38173**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 38029**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 12:37 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 12:37 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 12:37 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 12:37 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 12:37 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 10/27/22 15:04 | 10/30/22 12:37 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *114* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 12:37* | *1* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* | *10/27/22 15:04* | *10/30/22 12:37* | *1* |

**Lab Sample ID: LCS 880-38029/1-A**
**Matrix: Solid**
**Analysis Batch: 38173**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 38029**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.09535 | | mg/Kg | | 95 | 70 - 130 |
| Toluene | 0.100 | 0.1090 | | mg/Kg | | 109 | 70 - 130 |
| Ethylbenzene | 0.100 | 0.1032 | | mg/Kg | | 103 | 70 - 130 |
| m-Xylene & p-Xylene | 0.200 | 0.2114 | | mg/Kg | | 106 | 70 - 130 |
| o-Xylene | 0.100 | 0.1102 | | mg/Kg | | 110 | 70 - 130 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *89* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* |

**Lab Sample ID: LCSD 880-38029/2-A**
**Matrix: Solid**
**Analysis Batch: 38173**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 38029**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.1020 | | mg/Kg | | 102 | 70 - 130 | 7 | 35 |
| Toluene | 0.100 | 0.1051 | | mg/Kg | | 105 | 70 - 130 | 4 | 35 |
| Ethylbenzene | 0.100 | 0.09483 | | mg/Kg | | 95 | 70 - 130 | 8 | 35 |
| m-Xylene & p-Xylene | 0.200 | 0.1897 | | mg/Kg | | 95 | 70 - 130 | 11 | 35 |
| o-Xylene | 0.100 | 0.09633 | | mg/Kg | | 96 | 70 - 130 | 13 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *72* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* |

**Lab Sample ID: 880-20701-2 MS**
**Matrix: Solid**
**Analysis Batch: 38173**

**Client Sample ID: S-1 (1.5')**
**Prep Type: Total/NA**
**Prep Batch: 38029**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U F1 F2 | 0.100 | 0.01510 | F1 | mg/Kg | | 15 | 70 - 130 |
| Toluene | <0.00198 | U | 0.100 | 0.09894 | | mg/Kg | | 99 | 70 - 130 |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: 880-20701-2 MS**
**Matrix: Solid**
**Analysis Batch: 38173**

**Client Sample ID: S-1 (1.5')**
**Prep Type: Total/NA**
**Prep Batch: 38029**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | <0.00198 | U | 0.100 | 0.07238 | | mg/Kg | | 72 | 70 - 130 |
| m-Xylene & p-Xylene | <0.00396 | U F1 F2 | 0.200 | 0.1920 | | mg/Kg | | 96 | 70 - 130 |
| o-Xylene | <0.00198 | U F2 | 0.100 | 0.1035 | | mg/Kg | | 103 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *138* | *S1+* | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *104* | | *70 - 130* |

**Lab Sample ID: 880-20701-2 MSD**
**Matrix: Solid**
**Analysis Batch: 38173**

**Client Sample ID: S-1 (1.5')**
**Prep Type: Total/NA**
**Prep Batch: 38029**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00198 | U F1 F2 | 0.0990 | 0.07780 | F2 | mg/Kg | | 79 | 70 - 130 | 135 | 35 |
| Toluene | <0.00198 | U | 0.0990 | 0.08744 | | mg/Kg | | 88 | 70 - 130 | 12 | 35 |
| Ethylbenzene | <0.00198 | U | 0.0990 | 0.07170 | | mg/Kg | | 72 | 70 - 130 | 1 | 35 |
| m-Xylene & p-Xylene | <0.00396 | U F1 F2 | 0.198 | 0.1330 | F1 F2 | mg/Kg | | 67 | 70 - 130 | 36 | 35 |
| o-Xylene | <0.00198 | U F2 | 0.0990 | 0.07051 | F2 | mg/Kg | | 71 | 70 - 130 | 38 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *83* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *95* | | *70 - 130* |

**Lab Sample ID: MB 880-38223/5-A**
**Matrix: Solid**
**Analysis Batch: 38211**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 38223**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 11:00 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 11:00 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 11:00 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 11:00 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 11:00 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 10/31/22 09:15 | 10/31/22 11:00 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | *10/31/22 09:15* | *10/31/22 11:00* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *10/31/22 09:15* | *10/31/22 11:00* | *1* |

**Lab Sample ID: LCS 880-38223/1-A**
**Matrix: Solid**
**Analysis Batch: 38211**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 38223**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 0.100 | 0.08506 | | mg/Kg | | 85 | 70 - 130 |
| Toluene | 0.100 | 0.09233 | | mg/Kg | | 92 | 70 - 130 |
| Ethylbenzene | 0.100 | 0.09305 | | mg/Kg | | 93 | 70 - 130 |
| m-Xylene & p-Xylene | 0.200 | 0.1814 | | mg/Kg | | 91 | 70 - 130 |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: LCS 880-38223/1-A**
**Matrix: Solid**
**Analysis Batch: 38211**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 38223**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| o-Xylene | | | 0.100 | 0.1022 | | mg/Kg | | 102 | 70 - 130 | | |

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

**Lab Sample ID: LCSD 880-38223/2-A**
**Matrix: Solid**
**Analysis Batch: 38211**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 38223**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.09133 | | mg/Kg | | 91 | 70 - 130 | 7 | 35 |
| Toluene | | | 0.100 | 0.09725 | | mg/Kg | | 97 | 70 - 130 | 5 | 35 |
| Ethylbenzene | | | 0.100 | 0.09938 | | mg/Kg | | 99 | 70 - 130 | 7 | 35 |
| m-Xylene & p-Xylene | | | 0.200 | 0.1886 | | mg/Kg | | 94 | 70 - 130 | 4 | 35 |
| o-Xylene | | | 0.100 | 0.1064 | | mg/Kg | | 106 | 70 - 130 | 4 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *95* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *98* | | *70 - 130* |

**Lab Sample ID: 890-3303-A-2-B MS**
**Matrix: Solid**
**Analysis Batch: 38211**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 38223**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.0990 | 0.08354 | | mg/Kg | | 83 | 70 - 130 | | |
| Toluene | <0.00200 | U | 0.0990 | 0.08996 | | mg/Kg | | 91 | 70 - 130 | | |
| Ethylbenzene | <0.00200 | U | 0.0990 | 0.09006 | | mg/Kg | | 91 | 70 - 130 | | |
| m-Xylene & p-Xylene | <0.00399 | U | 0.198 | 0.1808 | | mg/Kg | | 91 | 70 - 130 | | |
| o-Xylene | <0.00200 | U | 0.0990 | 0.1013 | | mg/Kg | | 102 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *105* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *102* | | *70 - 130* |

**Lab Sample ID: 890-3303-A-2-C MSD**
**Matrix: Solid**
**Analysis Batch: 38211**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 38223**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.100 | 0.07830 | | mg/Kg | | 77 | 70 - 130 | 6 | 35 |
| Toluene | <0.00200 | U | 0.100 | 0.08671 | | mg/Kg | | 87 | 70 - 130 | 4 | 35 |
| Ethylbenzene | <0.00200 | U | 0.100 | 0.07853 | | mg/Kg | | 78 | 70 - 130 | 14 | 35 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.200 | 0.1517 | | mg/Kg | | 76 | 70 - 130 | 18 | 35 |
| o-Xylene | <0.00200 | U | 0.100 | 0.08529 | | mg/Kg | | 85 | 70 - 130 | 17 | 35 |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: 890-3303-A-2-C MSD**
**Matrix: Solid**
**Analysis Batch: 38211**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 38223**

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

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

**Lab Sample ID: MB 880-37942/1-A**
**Matrix: Solid**
**Analysis Batch: 38052**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 37942**

| 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 | | 10/26/22 16:08 | 10/28/22 21:13 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 21:13 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 10/26/22 16:08 | 10/28/22 21:13 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| 1-Chlorooctane | 84 | | 70 - 130 | 10/26/22 16:08 | 10/28/22 21:13 | 1 |
| o-Terphenyl | 85 | | 70 - 130 | 10/26/22 16:08 | 10/28/22 21:13 | 1 |

**Lab Sample ID: LCS 880-37942/2-A**
**Matrix: Solid**
**Analysis Batch: 38052**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 37942**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 850.0 | | mg/Kg | | 85 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 938.7 | | mg/Kg | | 94 | 70 - 130 | | |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 125 | | 70 - 130 |
| o-Terphenyl | 105 | | 70 - 130 |

**Lab Sample ID: LCSD 880-37942/3-A**
**Matrix: Solid**
**Analysis Batch: 38052**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 37942**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 1000 | 821.4 | | mg/Kg | | 82 | 70 - 130 | 3 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 1000 | 922.0 | | mg/Kg | | 92 | 70 - 130 | 2 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|---|---|---|---|
| 1-Chlorooctane | 124 | | 70 - 130 |
| o-Terphenyl | 102 | | 70 - 130 |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

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

**Lab Sample ID: 880-20701-1 MS**
**Matrix: Solid**
**Analysis Batch: 38052**

**Client Sample ID: S-1 (0-1')**
**Prep Type: Total/NA**
**Prep Batch: 37942**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.8 | U | 998 | 743.9 | | mg/Kg | | 75 | 70 - 130 |
| Diesel Range Organics (Over C10-C28) | 91.2 | | 998 | 974.1 | | mg/Kg | | 88 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *114* | | *70 - 130* |
| *o-Terphenyl* | *91* | | *70 - 130* |

**Lab Sample ID: 880-20701-1 MSD**
**Matrix: Solid**
**Analysis Batch: 38052**

**Client Sample ID: S-1 (0-1')**
**Prep Type: Total/NA**
**Prep Batch: 37942**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.8 | U | 998 | 771.9 | | mg/Kg | | 77 | 70 - 130 | 4 | 20 |
| Diesel Range Organics (Over C10-C28) | 91.2 | | 998 | 861.1 | | mg/Kg | | 77 | 70 - 130 | 12 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *85* | | *70 - 130* |
| *o-Terphenyl* | *79* | | *70 - 130* |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-37801/1-A**
**Matrix: Solid**
**Analysis Batch: 38044**

**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 | | | 10/27/22 16:57 | 1 |

**Lab Sample ID: LCS 880-37801/2-A**
**Matrix: Solid**
**Analysis Batch: 38044**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 250 | 254.8 | | mg/Kg | | 102 | 90 - 110 |

**Lab Sample ID: LCSD 880-37801/3-A**
**Matrix: Solid**
**Analysis Batch: 38044**

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 250 | 255.1 | | mg/Kg | | 102 | 90 - 110 | 0 | 20 |

# QC Sample Results

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: 880-20701-1 MS**
**Matrix: Solid**
**Analysis Batch: 38044**

**Client Sample ID: S-1 (0-1')**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 18300 | | 12400 | 29820 | | mg/Kg | | 93 | 90 - 110 | | |

**Lab Sample ID: 880-20701-1 MSD**
**Matrix: Solid**
**Analysis Batch: 38044**

**Client Sample ID: S-1 (0-1')**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 18300 | | 12400 | 31110 | | mg/Kg | | 103 | 90 - 110 | 4 | 20 |

**Lab Sample ID: 880-20701-11 MS**
**Matrix: Solid**
**Analysis Batch: 38044**

**Client Sample ID: S-3 (3')**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 160 | | 250 | 402.2 | | mg/Kg | | 97 | 90 - 110 | | |

**Lab Sample ID: 880-20701-11 MSD**
**Matrix: Solid**
**Analysis Batch: 38044**

**Client Sample ID: S-3 (3')**
**Prep Type: Soluble**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 160 | | 250 | 402.9 | | mg/Kg | | 97 | 90 - 110 | 0 | 20 |

# QC Association Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## GC VOA

### Prep Batch: 38029

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Total/NA | Solid | 5035 | |
| 880-20701-2 | S-1 (1.5') | Total/NA | Solid | 5035 | |
| 880-20701-3 | S-1 (2') | Total/NA | Solid | 5035 | |
| 880-20701-4 | S-2 (0-1') | Total/NA | Solid | 5035 | |
| 880-20701-5 | S-2 (1.5') | Total/NA | Solid | 5035 | |
| 880-20701-6 | S-2 (2') | Total/NA | Solid | 5035 | |
| 880-20701-7 | S-2 (3') | Total/NA | Solid | 5035 | |
| 880-20701-8 | S-3 (0-1') | Total/NA | Solid | 5035 | |
| 880-20701-9 | S-3 (1.5') | Total/NA | Solid | 5035 | |
| 880-20701-10 | S-3 (2') | Total/NA | Solid | 5035 | |
| 880-20701-11 | S-3 (3') | Total/NA | Solid | 5035 | |
| 880-20701-12 | S-4 (0-1') | Total/NA | Solid | 5035 | |
| 880-20701-13 | S-4 (1.5') | Total/NA | Solid | 5035 | |
| 880-20701-14 | S-4 (2') | Total/NA | Solid | 5035 | |
| 880-20701-15 | S-4 (3') | Total/NA | Solid | 5035 | |
| 880-20701-17 | S-5 (0-1') | Total/NA | Solid | 5035 | |
| 880-20701-18 | S-5 (1.5') | Total/NA | Solid | 5035 | |
| 880-20701-19 | S-5 (2') | Total/NA | Solid | 5035 | |
| MB 880-38029/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-38029/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-38029/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-20701-2 MS | S-1 (1.5') | Total/NA | Solid | 5035 | |
| 880-20701-2 MSD | S-1 (1.5') | Total/NA | Solid | 5035 | |

### Analysis Batch: 38173

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-2 | S-1 (1.5') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-3 | S-1 (2') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-4 | S-2 (0-1') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-5 | S-2 (1.5') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-6 | S-2 (2') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-7 | S-2 (3') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-8 | S-3 (0-1') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-9 | S-3 (1.5') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-10 | S-3 (2') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-11 | S-3 (3') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-12 | S-4 (0-1') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-13 | S-4 (1.5') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-14 | S-4 (2') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-15 | S-4 (3') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-17 | S-5 (0-1') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-18 | S-5 (1.5') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-19 | S-5 (2') | Total/NA | Solid | 8021B | 38029 |
| MB 880-38029/5-A | Method Blank | Total/NA | Solid | 8021B | 38029 |
| LCS 880-38029/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 38029 |
| LCSD 880-38029/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 38029 |
| 880-20701-2 MS | S-1 (1.5') | Total/NA | Solid | 8021B | 38029 |
| 880-20701-2 MSD | S-1 (1.5') | Total/NA | Solid | 8021B | 38029 |

# QC Association Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## GC VOA

### Analysis Batch: 38211

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-16 | S-4 (4') | Total/NA | Solid | 8021B | 38223 |
| 880-20701-20 | S-5 (3') | Total/NA | Solid | 8021B | 38223 |
| MB 880-38223/5-A | Method Blank | Total/NA | Solid | 8021B | 38223 |
| LCS 880-38223/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 38223 |
| LCSD 880-38223/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 38223 |
| 890-3303-A-2-B MS | Matrix Spike | Total/NA | Solid | 8021B | 38223 |
| 890-3303-A-2-C MSD | Matrix Spike Duplicate | Total/NA | Solid | 8021B | 38223 |

### Prep Batch: 38223

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-16 | S-4 (4') | Total/NA | Solid | 5035 | |
| 880-20701-20 | S-5 (3') | Total/NA | Solid | 5035 | |
| MB 880-38223/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-38223/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-38223/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 890-3303-A-2-B MS | Matrix Spike | Total/NA | Solid | 5035 | |
| 890-3303-A-2-C MSD | Matrix Spike Duplicate | Total/NA | Solid | 5035 | |

### Analysis Batch: 38246

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Total/NA | Solid | Total BTEX | |
| 880-20701-2 | S-1 (1.5') | Total/NA | Solid | Total BTEX | |
| 880-20701-3 | S-1 (2') | Total/NA | Solid | Total BTEX | |
| 880-20701-4 | S-2 (0-1') | Total/NA | Solid | Total BTEX | |
| 880-20701-5 | S-2 (1.5') | Total/NA | Solid | Total BTEX | |
| 880-20701-6 | S-2 (2') | Total/NA | Solid | Total BTEX | |
| 880-20701-7 | S-2 (3') | Total/NA | Solid | Total BTEX | |
| 880-20701-8 | S-3 (0-1') | Total/NA | Solid | Total BTEX | |
| 880-20701-9 | S-3 (1.5') | Total/NA | Solid | Total BTEX | |
| 880-20701-10 | S-3 (2') | Total/NA | Solid | Total BTEX | |
| 880-20701-11 | S-3 (3') | Total/NA | Solid | Total BTEX | |
| 880-20701-12 | S-4 (0-1') | Total/NA | Solid | Total BTEX | |
| 880-20701-13 | S-4 (1.5') | Total/NA | Solid | Total BTEX | |
| 880-20701-14 | S-4 (2') | Total/NA | Solid | Total BTEX | |
| 880-20701-15 | S-4 (3') | Total/NA | Solid | Total BTEX | |
| 880-20701-16 | S-4 (4') | Total/NA | Solid | Total BTEX | |
| 880-20701-17 | S-5 (0-1') | Total/NA | Solid | Total BTEX | |
| 880-20701-18 | S-5 (1.5') | Total/NA | Solid | Total BTEX | |
| 880-20701-19 | S-5 (2') | Total/NA | Solid | Total BTEX | |
| 880-20701-20 | S-5 (3') | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Prep Batch: 37942

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-2 | S-1 (1.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-3 | S-1 (2') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-4 | S-2 (0-1') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-5 | S-2 (1.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-6 | S-2 (2') | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## GC Semi VOA (Continued)

### Prep Batch: 37942 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-7 | S-2 (3') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-8 | S-3 (0-1') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-9 | S-3 (1.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-10 | S-3 (2') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-11 | S-3 (3') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-12 | S-4 (0-1') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-13 | S-4 (1.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-14 | S-4 (2') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-15 | S-4 (3') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-16 | S-4 (4') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-17 | S-5 (0-1') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-18 | S-5 (1.5') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-19 | S-5 (2') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-20 | S-5 (3') | Total/NA | Solid | 8015NM Prep | |
| MB 880-37942/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-37942/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-37942/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-20701-1 MS | S-1 (0-1') | Total/NA | Solid | 8015NM Prep | |
| 880-20701-1 MSD | S-1 (0-1') | Total/NA | Solid | 8015NM Prep | |

### Analysis Batch: 38052

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-2 | S-1 (1.5') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-3 | S-1 (2') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-4 | S-2 (0-1') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-5 | S-2 (1.5') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-6 | S-2 (2') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-7 | S-2 (3') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-8 | S-3 (0-1') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-9 | S-3 (1.5') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-10 | S-3 (2') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-11 | S-3 (3') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-12 | S-4 (0-1') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-13 | S-4 (1.5') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-14 | S-4 (2') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-15 | S-4 (3') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-16 | S-4 (4') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-17 | S-5 (0-1') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-18 | S-5 (1.5') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-19 | S-5 (2') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-20 | S-5 (3') | Total/NA | Solid | 8015B NM | 37942 |
| MB 880-37942/1-A | Method Blank | Total/NA | Solid | 8015B NM | 37942 |
| LCS 880-37942/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 37942 |
| LCSD 880-37942/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-1 MS | S-1 (0-1') | Total/NA | Solid | 8015B NM | 37942 |
| 880-20701-1 MSD | S-1 (0-1') | Total/NA | Solid | 8015B NM | 37942 |

### Analysis Batch: 38294

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Total/NA | Solid | 8015 NM | |

# QC Association Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## GC Semi VOA (Continued)

### Analysis Batch: 38294 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-2 | S-1 (1.5') | Total/NA | Solid | 8015 NM | |
| 880-20701-3 | S-1 (2') | Total/NA | Solid | 8015 NM | |
| 880-20701-4 | S-2 (0-1') | Total/NA | Solid | 8015 NM | |
| 880-20701-5 | S-2 (1.5') | Total/NA | Solid | 8015 NM | |
| 880-20701-6 | S-2 (2') | Total/NA | Solid | 8015 NM | |
| 880-20701-7 | S-2 (3') | Total/NA | Solid | 8015 NM | |
| 880-20701-8 | S-3 (0-1') | Total/NA | Solid | 8015 NM | |
| 880-20701-9 | S-3 (1.5') | Total/NA | Solid | 8015 NM | |
| 880-20701-10 | S-3 (2') | Total/NA | Solid | 8015 NM | |
| 880-20701-11 | S-3 (3') | Total/NA | Solid | 8015 NM | |
| 880-20701-12 | S-4 (0-1') | Total/NA | Solid | 8015 NM | |
| 880-20701-13 | S-4 (1.5') | Total/NA | Solid | 8015 NM | |
| 880-20701-14 | S-4 (2') | Total/NA | Solid | 8015 NM | |
| 880-20701-15 | S-4 (3') | Total/NA | Solid | 8015 NM | |
| 880-20701-16 | S-4 (4') | Total/NA | Solid | 8015 NM | |
| 880-20701-17 | S-5 (0-1') | Total/NA | Solid | 8015 NM | |
| 880-20701-18 | S-5 (1.5') | Total/NA | Solid | 8015 NM | |
| 880-20701-19 | S-5 (2') | Total/NA | Solid | 8015 NM | |
| 880-20701-20 | S-5 (3') | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 37801

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Soluble | Solid | DI Leach | |
| 880-20701-2 | S-1 (1.5') | Soluble | Solid | DI Leach | |
| 880-20701-3 | S-1 (2') | Soluble | Solid | DI Leach | |
| 880-20701-4 | S-2 (0-1') | Soluble | Solid | DI Leach | |
| 880-20701-5 | S-2 (1.5') | Soluble | Solid | DI Leach | |
| 880-20701-6 | S-2 (2') | Soluble | Solid | DI Leach | |
| 880-20701-7 | S-2 (3') | Soluble | Solid | DI Leach | |
| 880-20701-8 | S-3 (0-1') | Soluble | Solid | DI Leach | |
| 880-20701-9 | S-3 (1.5') | Soluble | Solid | DI Leach | |
| 880-20701-10 | S-3 (2') | Soluble | Solid | DI Leach | |
| 880-20701-11 | S-3 (3') | Soluble | Solid | DI Leach | |
| 880-20701-12 | S-4 (0-1') | Soluble | Solid | DI Leach | |
| 880-20701-13 | S-4 (1.5') | Soluble | Solid | DI Leach | |
| 880-20701-14 | S-4 (2') | Soluble | Solid | DI Leach | |
| 880-20701-15 | S-4 (3') | Soluble | Solid | DI Leach | |
| 880-20701-16 | S-4 (4') | Soluble | Solid | DI Leach | |
| 880-20701-17 | S-5 (0-1') | Soluble | Solid | DI Leach | |
| 880-20701-18 | S-5 (1.5') | Soluble | Solid | DI Leach | |
| 880-20701-19 | S-5 (2') | Soluble | Solid | DI Leach | |
| 880-20701-20 | S-5 (3') | Soluble | Solid | DI Leach | |
| MB 880-37801/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-37801/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-37801/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-20701-1 MS | S-1 (0-1') | Soluble | Solid | DI Leach | |
| 880-20701-1 MSD | S-1 (0-1') | Soluble | Solid | DI Leach | |
| 880-20701-11 MS | S-3 (3') | Soluble | Solid | DI Leach | |
| 880-20701-11 MSD | S-3 (3') | Soluble | Solid | DI Leach | |

# QC Association Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## HPLC/IC

### Analysis Batch: 38044

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-2 | S-1 (1.5') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-3 | S-1 (2') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-4 | S-2 (0-1') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-5 | S-2 (1.5') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-6 | S-2 (2') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-7 | S-2 (3') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-8 | S-3 (0-1') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-9 | S-3 (1.5') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-10 | S-3 (2') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-11 | S-3 (3') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-12 | S-4 (0-1') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-13 | S-4 (1.5') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-14 | S-4 (2') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-15 | S-4 (3') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-16 | S-4 (4') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-17 | S-5 (0-1') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-18 | S-5 (1.5') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-19 | S-5 (2') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-20 | S-5 (3') | Soluble | Solid | 300.0 | 37801 |
| MB 880-37801/1-A | Method Blank | Soluble | Solid | 300.0 | 37801 |
| LCS 880-37801/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 37801 |
| LCSD 880-37801/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 37801 |
| 880-20701-1 MS | S-1 (0-1') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-1 MSD | S-1 (0-1') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-11 MS | S-3 (3') | Soluble | Solid | 300.0 | 37801 |
| 880-20701-11 MSD | S-3 (3') | Soluble | Solid | 300.0 | 37801 |

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-1 (0-1')

**Lab Sample ID: 880-20701-1**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 100 | 5 mL | 5 mL | 38173 | 10/30/22 16:09 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/28/22 22:18 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 50 | 50 mL | 50 mL | 38044 | 10/27/22 17:22 | CH | EET MID |

## Client Sample ID: S-1 (1.5')

**Lab Sample ID: 880-20701-2**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 13:05 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/28/22 23:22 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38044 | 10/27/22 17:47 | CH | EET MID |

## Client Sample ID: S-1 (2')

**Lab Sample ID: 880-20701-3**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 13:26 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/28/22 23:44 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.05 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38044 | 10/27/22 17:56 | CH | EET MID |

## Client Sample ID: S-2 (0-1')

**Lab Sample ID: 880-20701-4**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 13:46 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-2 (0-1')

**Lab Sample ID: 880-20701-4**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 00:05 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 10 | 50 mL | 50 mL | 38044 | 10/27/22 18:04 | CH | EET MID |

## Client Sample ID: S-2 (1.5')

**Lab Sample ID: 880-20701-5**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 14:07 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 00:26 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 10 | 50 mL | 50 mL | 38044 | 10/27/22 18:12 | CH | EET MID |

## Client Sample ID: S-2 (2')

**Lab Sample ID: 880-20701-6**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 14:27 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 00:48 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | 50 mL | 50 mL | 38044 | 10/27/22 18:37 | CH | EET MID |

## Client Sample ID: S-2 (3')

**Lab Sample ID: 880-20701-7**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 14:48 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 01:10 | AJ | EET MID |

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-2 (3')

**Lab Sample ID: 880-20701-7**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | 50 mL | 50 mL | 38044 | 10/27/22 18:46 | CH | EET MID |

## Client Sample ID: S-3 (0-1')

**Lab Sample ID: 880-20701-8**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 15:08 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 01:31 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 20 | 50 mL | 50 mL | 38044 | 10/27/22 18:54 | CH | EET MID |

## Client Sample ID: S-3 (1.5')

**Lab Sample ID: 880-20701-9**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 15:28 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.04 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 01:53 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 20 | 50 mL | 50 mL | 38044 | 10/27/22 19:03 | CH | EET MID |

## Client Sample ID: S-3 (2')

**Lab Sample ID: 880-20701-10**
**Matrix: Solid**
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 15:49 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 02:15 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | 50 mL | 50 mL | 38044 | 10/27/22 19:11 | CH | EET MID |

Eurofins Midland

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-3 (3')

**Lab Sample ID: 880-20701-11**

**Date Collected: 10/24/22 00:00**
**Matrix: Solid**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 17:59 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 02:59 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 1 | 50 mL | 50 mL | 38044 | 10/27/22 19:19 | CH | EET MID |

## Client Sample ID: S-4 (0-1')

**Lab Sample ID: 880-20701-12**

**Date Collected: 10/24/22 00:00**
**Matrix: Solid**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 50 | 5 mL | 5 mL | 38173 | 10/30/22 21:03 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 03:21 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 20 | 50 mL | 50 mL | 38044 | 10/27/22 19:44 | CH | EET MID |

## Client Sample ID: S-4 (1.5')

**Lab Sample ID: 880-20701-13**

**Date Collected: 10/24/22 00:00**
**Matrix: Solid**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 18:19 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 03:43 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 20 | 50 mL | 50 mL | 38044 | 10/27/22 19:53 | CH | EET MID |

## Client Sample ID: S-4 (2')

**Lab Sample ID: 880-20701-14**

**Date Collected: 10/24/22 00:00**
**Matrix: Solid**
**Date Received: 10/25/22 09:36**

| 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 | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 18:40 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |

Eurofins Midland

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-4 (2')
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-14**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 04:05 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 50 | 50 mL | 50 mL | 38044 | 10/27/22 20:18 | CH | EET MID |

## Client Sample ID: S-4 (3')
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-15**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.99 g | 5 mL | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 19:00 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 04:27 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.04 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 20 | 50 mL | 50 mL | 38044 | 10/27/22 20:26 | CH | EET MID |

## Client Sample ID: S-4 (4')
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-16**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.99 g | 5 mL | 38223 | 10/31/22 09:15 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38211 | 10/31/22 12:03 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 15:09 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 04:49 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | 50 mL | 50 mL | 38044 | 10/27/22 20:35 | CH | EET MID |

## Client Sample ID: S-5 (0-1')
**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-17**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 4.97 g | 5 mL | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 19:41 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 05:11 | AJ | EET MID |

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Client Sample ID: S-5 (0-1')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-17**
**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 | | | 5.01 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 10 | 50 mL | 50 mL | 38044 | 10/27/22 20:43 | CH | EET MID |

## Client Sample ID: S-5 (1.5')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-18**
**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 | | | 5.05 g | 5 mL | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 20:01 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.03 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 05:33 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | 50 mL | 50 mL | 38044 | 10/27/22 20:51 | CH | EET MID |

## Client Sample ID: S-5 (2')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-19**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.03 g | 5 mL | 38029 | 10/27/22 15:04 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38173 | 10/30/22 20:22 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 10:07 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 05:54 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.02 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | 50 mL | 50 mL | 38044 | 10/27/22 21:00 | CH | EET MID |

## Client Sample ID: S-5 (3')

**Date Collected: 10/24/22 00:00**
**Date Received: 10/25/22 09:36**

**Lab Sample ID: 880-20701-20**
**Matrix: Solid**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 5.01 g | 5 mL | 38223 | 10/31/22 09:15 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 38211 | 10/31/22 12:24 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 38246 | 10/31/22 15:09 | AJ | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 38294 | 10/31/22 14:18 | SM | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 37942 | 10/26/22 16:08 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 38052 | 10/29/22 06:16 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 37801 | 10/25/22 11:06 | CH | EET MID |
| Soluble | Analysis | 300.0 | | 5 | 50 mL | 50 mL | 38044 | 10/27/22 21:08 | CH | EET MID |

# Lab Chronicle

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

## Laboratory: Eurofins Midland

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

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

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

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

# Method Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

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

**Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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

# Sample Summary

Client: Carmona Resources
Project/Site: Shell Federal

Job ID: 880-20701-1
SDG: Eddy County, New Mexico

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 880-20701-1 | S-1 (0-1') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-2 | S-1 (1.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-3 | S-1 (2') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-4 | S-2 (0-1') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-5 | S-2 (1.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-6 | S-2 (2') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-7 | S-2 (3') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-8 | S-3 (0-1') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-9 | S-3 (1.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-10 | S-3 (2') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-11 | S-3 (3') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-12 | S-4 (0-1') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-13 | S-4 (1.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-14 | S-4 (2') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-15 | S-4 (3') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-16 | S-4 (4') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-17 | S-5 (0-1') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-18 | S-5 (1.5') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-19 | S-5 (2') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |
| 880-20701-20 | S-5 (3') | Solid | 10/24/22 00:00 | 10/25/22 09:36 |

Work Order No: 20701

Page 1 of 2

| | | | |
|---|---|---|---|
| Project Manager | Conner Moehring | Bill to (if different) | Grant Huckabay |
| Company Name | Carmona Resources | Company Name | Fasken Oil and Ranch |
| Address. | 310 W Wall St Ste 415 | Address. | 6101 Holiday Hill Road |
| City, State ZIP | Midland, TX 79701 | City, State ZIP | Midland, Texas 79707 |
| Phone | 432-813-6823 | Email | Granth@forl.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables. EDD ☐ ADaPT ☐ Other

| | | | |
|---|---|---|---|
| Project Name | Shell Federal | Turn Around | |
| Project Number | 1155 | ☑ Routine ☐ Rush | |
| Project Location | Eddy County, New Mexico | Due Date | |
| Sampler's Name | CRM | | |
| PO # | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes No | Wet Ice | Yes No | |
| Received Intact: | Yes No | Thermometer ID | IR2 | |
| Cooler Custody Seals | Yes No N/A | Correction Factor | -.3 | |
| Sample Custody Seals | Yes No N/A | Temperature Reading | 0.4 | |
| Total Containers | | Corrected Temperature | 0.1 | |

**ANALYSIS REQUEST**

**Preservative Codes**

None NO DI Water $H_2O$

Cool Cool MeOH Me

HCL HC $HNO_3$ HN

$H_2S0_4$ $H_2$ NaOH Na

$H_3PO_4$. HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

| Sample Identification | Date | Time | Soil | Water | Grab/ Comp | # of Cont | Parameters: BTEX 8021B | TPH 8015M ( GRO + DRO + MRO) | Chloride 300.0 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| S-1 (0-1') | 10/24/2022 | | X | | G | 1 | X | X | X | 4oz jar |
| S-1 (1.5') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-1 (2') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-2 (0-1') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-2 (1.5') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-2 (2') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-2 (3') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-3 (0-1') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-3 (1 5') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-3 (2') | 10/24/2022 | | X | | G | 1 | X | X | X | |

880-20701 Chain of Custody

Comments:

| Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time |
|---|---|---|---|
| Conner Moehring | 10/25/22 9 36 | | |
| | | | |
| | | | |

Work Order No: 20701

Page 2 of 2

| | | | |
|---|---|---|---|
| Project Manager | Conner Moehring | Bill to (if different) | Grant Huckabay |
| Company Name | Carmona Resources | Company Name | Fasken Oil and Ranch |
| Address. | 310 W Wall St Ste 415 | Address | 6101 Holiday Hill Road |
| City, State ZIP | Midland, TX 79701 | City, State ZIP | Midland, Texas 79707 |
| Phone | 432-813-6823 | Email | Granth@forl.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables EDD ☐ ADaPT ☐ Other:

| | | | | | |
|---|---|---|---|---|---|
| Project Name | Shell Federal | Turn Around | | Pres. Code | |
| Project Number | 1155 | ☑ Routine | ☐ Rush | | |
| Project Location | Eddy County, New Mexico | Due Date | | | |
| Sampler's Name. | CRM | | | | |
| PO #: | | | | | |

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

**Preservative Codes**

None NO DI Water $H_2O$

Cool Cool MeOH Me

HCL HC $HNO_3$ HN

$H_2S0_4$ $H_2$ NaOH Na

$H_3PO_4$ HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

| Sample Identification | Date | Time | Soil | Water | Grab/ Comp | # of Cont | Parameters: BTEX 8021B | TPH 8015M ( GRO + DRO + MRO) | Chloride 300.0 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| S-3 (3') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-4 (0-1') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-4 (1 5') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-4 (2') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-4 (3') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-4 (4') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-5 (0-1') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-5 (1 5') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-5 (2') | 10/24/2022 | | X | | G | 1 | X | X | X | |
| S-5 (3') | 10/24/2022 | | X | | G | 1 | X | X | X | |

Loc 880
20701

Comments:

| Relinquished by (Signature) | Date/Time | Received by (Signature) | Date/Time |
|---|---|---|---|
| Conner Moehring | 10/25/22 936 | | |
| | | | |
| | | | |

# Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-20701-1
SDG Number: Eddy County, New Mexico

**Login Number: 20701**
**List Number: 1**
**Creator: Rodriguez, Leticia**

**List Source: Eurofins Midland**

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

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Grant Huckabay
Fasken Oil and Ranch
6101 Holiday HIll Road
Midland, Texas 79707

Generated 1/26/2023 3:24:14 PM

## JOB DESCRIPTION

Shell Fed #2

## JOB NUMBER

880-24038-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.





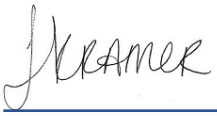
my EOL

# Eurofins Midland

## Job Notes

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

## Authorization



Generated
1/26/2023 3:24:14 PM

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

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Laboratory Job ID: 880-24038-1

# Table of Contents

# Definitions/Glossary

Client: Fasken Oil and Ranch
Job ID: 880-24038-1
Project/Site: Shell Fed #2

## Qualifiers

### GC 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. |
| U | Indicates the analyte was analyzed for but not detected. |

### GC Semi VOA

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

### HPLC/IC

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

## Glossary

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

# Case Narrative

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## Job ID: 880-24038-1

**Laboratory: Eurofins Midland**

**Narrative**

**Job Narrative**
**880-24038-1**

**Receipt**
The samples were received on 1/24/2023 11:14 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 3.0°C

**Receipt Exceptions**
The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

**GC VOA**
Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-44619 and analytical batch 880-44613 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: SW-N (880-24038-2) and SW-E (880-24038-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**GC Semi VOA**
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-24038-A-1-F MS) and (880-24038-A-1-G MSD). Evidence of matrix interferences is not obvious.

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

**HPLC/IC**
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44632 and analytical batch 880-44690 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

# Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## Client Sample ID: BH

**Lab Sample ID: 880-24038-1**
**Matrix: Solid**
**Date Collected: 01/23/23 11:00**
**Date Received: 01/24/23 11:14**
**Sample Depth: 4'**

### 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 | | 01/24/23 11:27 | 01/24/23 23:29 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:29 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:29 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:29 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:29 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *77* | | *70 - 130* | *01/24/23 11:27* | *01/24/23 23:29* | *1* |
| *1,4-Difluorobenzene (Surr)* | *92* | | *70 - 130* | *01/24/23 11:27* | *01/24/23 23:29* | *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 | | | 01/25/23 15:14 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/26/23 14:54 | 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 | | 01/25/23 08:39 | 01/25/23 13:17 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 13:17 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 13:17 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *87* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 13:17* | *1* |
| *o-Terphenyl* | *84* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 13:17* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.02 | U F1 | 5.02 | | mg/Kg | | | 01/25/23 07:32 | 1 |

## Client Sample ID: SW-N

**Lab Sample ID: 880-24038-2**
**Matrix: Solid**
**Date Collected: 01/23/23 11:15**
**Date Received: 01/24/23 11:14**
**Sample Depth: 4'**

### 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 | | 01/24/23 11:27 | 01/24/23 23:50 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:50 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:50 | 1 |
| m-Xylene & p-Xylene | <0.00399 | U | 0.00399 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:50 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:50 | 1 |
| Xylenes, Total | <0.00399 | U | 0.00399 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 23:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *60* | *S1-* | *70 - 130* | *01/24/23 11:27* | *01/24/23 23:50* | *1* |

Eurofins Midland

# Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## Client Sample ID: SW-N

**Lab Sample ID: 880-24038-2**
**Matrix: Solid**
**Date Collected: 01/23/23 11:15**
**Date Received: 01/24/23 11:14**
**Sample Depth: 4'**

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

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *01/24/23 11:27* | *01/24/23 23:50* | *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 | | | 01/25/23 15:14 | 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 | | | 01/26/23 14:54 | 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 | | 01/25/23 08:39 | 01/25/23 14:25 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 14:25 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 14:25 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *90* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 14:25* | *1* |
| *o-Terphenyl* | *92* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 14:25* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <4.97 | U | 4.97 | | mg/Kg | | | 01/25/23 07:51 | 1 |

## Client Sample ID: SW-S

**Lab Sample ID: 880-24038-3**
**Matrix: Solid**
**Date Collected: 01/23/23 11:32**
**Date Received: 01/24/23 11:14**
**Sample Depth: 4'**

### 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 | | 01/24/23 11:27 | 01/25/23 00:11 | 1 |
| Toluene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:11 | 1 |
| Ethylbenzene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:11 | 1 |
| m-Xylene & p-Xylene | <0.00402 | U | 0.00402 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:11 | 1 |
| o-Xylene | <0.00201 | U | 0.00201 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:11 | 1 |
| Xylenes, Total | <0.00402 | U | 0.00402 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:11 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *01/24/23 11:27* | *01/25/23 00:11* | *1* |
| *1,4-Difluorobenzene (Surr)* | *97* | | *70 - 130* | *01/24/23 11:27* | *01/25/23 00:11* | *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 | | | 01/25/23 15:14 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/26/23 14:54 | 1 |

Eurofins Midland

# Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## Client Sample ID: SW-S

**Lab Sample ID: 880-24038-3**
**Matrix: Solid**
**Date Collected: 01/23/23 11:32**
**Date Received: 01/24/23 11:14**
**Sample Depth: 4'**

### 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 | | 01/25/23 08:39 | 01/25/23 14:48 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 14:48 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 14:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *82* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 14:48* | *1* |
| *o-Terphenyl* | *82* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 14:48* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **52.7** | | 4.99 | | mg/Kg | | | 01/25/23 07:57 | 1 |

## Client Sample ID: SW-E

**Lab Sample ID: 880-24038-4**
**Matrix: Solid**
**Date Collected: 01/23/23 11:45**
**Date Received: 01/24/23 11:14**
**Sample Depth: 4'**

### 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 | | 01/24/23 11:27 | 01/25/23 00:32 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:32 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:32 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:32 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:32 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *59* | *S1-* | *70 - 130* | *01/24/23 11:27* | *01/25/23 00:32* | *1* |
| *1,4-Difluorobenzene (Surr)* | *90* | | *70 - 130* | *01/24/23 11:27* | *01/25/23 00:32* | *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 | | | 01/25/23 15:14 | 1 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total TPH | <50.0 | U | 50.0 | | mg/Kg | | | 01/26/23 14:54 | 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 | | 01/25/23 08:39 | 01/25/23 15:10 | 1 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 50.0 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 15:10 | 1 |
| OII Range Organics (Over C28-C36) | <50.0 | U | 50.0 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 15:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *83* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 15:10* | *1* |
| *o-Terphenyl* | *83* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 15:10* | *1* |

# Client Sample Results

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## Client Sample ID: SW-E

**Lab Sample ID: 880-24038-4**
**Matrix: Solid**
**Date Collected: 01/23/23 11:45**
**Date Received: 01/24/23 11:14**
**Sample Depth: 4'**

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 36.5 | | 5.05 | | mg/Kg | | | 01/25/23 08:03 | 1 |

## Client Sample ID: SW-W

**Lab Sample ID: 880-24038-5**
**Matrix: Solid**
**Date Collected: 01/23/23 12:00**
**Date Received: 01/24/23 11:14**
**Sample Depth: 4'**

### 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 | | 01/24/23 11:27 | 01/25/23 00:52 | 1 |
| Toluene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:52 | 1 |
| Ethylbenzene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:52 | 1 |
| m-Xylene & p-Xylene | <0.00398 | U | 0.00398 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:52 | 1 |
| o-Xylene | <0.00199 | U | 0.00199 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:52 | 1 |
| Xylenes, Total | <0.00398 | U | 0.00398 | | mg/Kg | | 01/24/23 11:27 | 01/25/23 00:52 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *79* | | *70 - 130* | *01/24/23 11:27* | *01/25/23 00:52* | *1* |
| *1,4-Difluorobenzene (Surr)* | *94* | | *70 - 130* | *01/24/23 11:27* | *01/25/23 00:52* | *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 | | | 01/25/23 15:14 | 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 | | | 01/26/23 14:54 | 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 | | 01/25/23 08:39 | 01/25/23 15:33 | 1 |
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 15:33 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 15:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *79* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 15:33* | *1* |
| *o-Terphenyl* | *80* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 15:33* | *1* |

### Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 87.9 | | 5.04 | | mg/Kg | | | 01/25/23 09:05 | 1 |

# Surrogate Summary

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | BFB1 (70-130) | DFBZ1 (70-130) |
| 880-24038-1 | BH | 77 | 92 |
| 880-24038-2 | SW-N | 60 S1- | 91 |
| 880-24038-3 | SW-S | 102 | 97 |
| 880-24038-4 | SW-E | 59 S1- | 90 |
| 880-24038-5 | SW-W | 79 | 94 |
| 880-24039-A-1-A MS | Matrix Spike | 102 | 101 |
| 880-24039-A-1-B MSD | Matrix Spike Duplicate | 88 | 103 |
| LCS 880-44619/1-A | Lab Control Sample | 98 | 109 |
| LCSD 880-44619/2-A | Lab Control Sample Dup | 90 | 107 |
| MB 880-44550/5-A | Method Blank | 75 | 91 |
| MB 880-44619/5-A | Method Blank | 70 | 100 |

**Surrogate Legend**

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

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | |
|---|---|---|---|
| Lab Sample ID | Client Sample ID | 1CO1 (70-130) | OTPH1 (70-130) |
| 880-24038-1 | BH | 87 | 84 |
| 880-24038-1 MS | BH | 79 | 68 S1- |
| 880-24038-1 MSD | BH | 75 | 64 S1- |
| 880-24038-2 | SW-N | 90 | 92 |
| 880-24038-3 | SW-S | 82 | 82 |
| 880-24038-4 | SW-E | 83 | 83 |
| 880-24038-5 | SW-W | 79 | 80 |
| LCS 880-44696/2-A | Lab Control Sample | 95 | 93 |
| LCSD 880-44696/3-A | Lab Control Sample Dup | 90 | 93 |
| MB 880-44696/1-A | Method Blank | 100 | 98 |

**Surrogate Legend**

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

# QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

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

**Lab Sample ID: MB 880-44550/5-A**
**Matrix: Solid**
**Analysis Batch: 44613**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 44550**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/23/23 15:50 | 01/24/23 11:43 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/23/23 15:50 | 01/24/23 11:43 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/23/23 15:50 | 01/24/23 11:43 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 01/23/23 15:50 | 01/24/23 11:43 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/23/23 15:50 | 01/24/23 11:43 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/23/23 15:50 | 01/24/23 11:43 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *75* | | *70 - 130* | *01/23/23 15:50* | *01/24/23 11:43* | *1* |
| *1,4-Difluorobenzene (Surr)* | *91* | | *70 - 130* | *01/23/23 15:50* | *01/24/23 11:43* | *1* |

**Lab Sample ID: MB 880-44619/5-A**
**Matrix: Solid**
**Analysis Batch: 44613**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 44619**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 22:25 | 1 |
| Toluene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 22:25 | 1 |
| Ethylbenzene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 22:25 | 1 |
| m-Xylene & p-Xylene | <0.00400 | U | 0.00400 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 22:25 | 1 |
| o-Xylene | <0.00200 | U | 0.00200 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 22:25 | 1 |
| Xylenes, Total | <0.00400 | U | 0.00400 | | mg/Kg | | 01/24/23 11:27 | 01/24/23 22:25 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *70* | | *70 - 130* | *01/24/23 11:27* | *01/24/23 22:25* | *1* |
| *1,4-Difluorobenzene (Surr)* | *100* | | *70 - 130* | *01/24/23 11:27* | *01/24/23 22:25* | *1* |

**Lab Sample ID: LCS 880-44619/1-A**
**Matrix: Solid**
**Analysis Batch: 44613**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 44619**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.09605 | | mg/Kg | | 96 | 70 - 130 | | |
| Toluene | | | 0.100 | 0.08702 | | mg/Kg | | 87 | 70 - 130 | | |
| Ethylbenzene | | | 0.100 | 0.08377 | | mg/Kg | | 84 | 70 - 130 | | |
| m-Xylene & p-Xylene | | | 0.200 | 0.1763 | | mg/Kg | | 88 | 70 - 130 | | |
| o-Xylene | | | 0.100 | 0.08841 | | mg/Kg | | 88 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *109* | | *70 - 130* |

**Lab Sample ID: LCSD 880-44619/2-A**
**Matrix: Solid**
**Analysis Batch: 44613**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 44619**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | | | 0.100 | 0.1159 | | mg/Kg | | 116 | 70 - 130 | 19 | 35 |

# QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

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

**Lab Sample ID: LCSD 880-44619/2-A**
**Matrix: Solid**
**Analysis Batch: 44613**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 44619**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Toluene | | | 0.100 | 0.1003 | | mg/Kg | | 100 | 70 - 130 | 14 | 35 |
| Ethylbenzene | | | 0.100 | 0.09225 | | mg/Kg | | 92 | 70 - 130 | 10 | 35 |
| m-Xylene & p-Xylene | | | 0.200 | 0.1845 | | mg/Kg | | 92 | 70 - 130 | 5 | 35 |
| o-Xylene | | | 0.100 | 0.09078 | | mg/Kg | | 91 | 70 - 130 | 3 | 35 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *90* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *107* | | *70 - 130* |

**Lab Sample ID: 880-24039-A-1-A MS**
**Matrix: Solid**
**Analysis Batch: 44613**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 44619**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U F1 F2 | 0.100 | 0.08688 | | mg/Kg | | 87 | 70 - 130 |
| Toluene | <0.00201 | U F1 F2 | 0.100 | 0.07578 | | mg/Kg | | 75 | 70 - 130 |
| Ethylbenzene | <0.00201 | U F1 F2 | 0.100 | 0.07485 | | mg/Kg | | 75 | 70 - 130 |
| m-Xylene & p-Xylene | <0.00402 | U F1 F2 | 0.200 | 0.1510 | | mg/Kg | | 75 | 70 - 130 |
| o-Xylene | <0.00201 | U F1 F2 | 0.100 | 0.07657 | | mg/Kg | | 76 | 70 - 130 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *101* | | *70 - 130* |

**Lab Sample ID: 880-24039-A-1-B MSD**
**Matrix: Solid**
**Analysis Batch: 44613**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 44619**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.00201 | U F1 F2 | 0.0990 | 0.05391 | F1 F2 | mg/Kg | | 54 | 70 - 130 | 47 | 35 |
| Toluene | <0.00201 | U F1 F2 | 0.0990 | 0.04769 | F1 F2 | mg/Kg | | 47 | 70 - 130 | 45 | 35 |
| Ethylbenzene | <0.00201 | U F1 F2 | 0.0990 | 0.04696 | F1 F2 | mg/Kg | | 47 | 70 - 130 | 46 | 35 |
| m-Xylene & p-Xylene | <0.00402 | U F1 F2 | 0.198 | 0.09156 | F1 F2 | mg/Kg | | 46 | 70 - 130 | 49 | 35 |
| o-Xylene | <0.00201 | U F1 F2 | 0.0990 | 0.04738 | F1 F2 | mg/Kg | | 47 | 70 - 130 | 47 | 35 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *88* | | *70 - 130* |
| *1,4-Difluorobenzene (Surr)* | *103* | | *70 - 130* |

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

**Lab Sample ID: MB 880-44696/1-A**
**Matrix: Solid**
**Analysis Batch: 44706**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 44696**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <49.9 | U | 49.9 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 10:43 | 1 |

# QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

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

**Lab Sample ID: MB 880-44696/1-A**
**Matrix: Solid**
**Analysis Batch: 44706**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 44696**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (Over C10-C28) | <49.9 | U | 49.9 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 10:43 | 1 |
| OII Range Organics (Over C28-C36) | <49.9 | U | 49.9 | | mg/Kg | | 01/25/23 08:39 | 01/25/23 10:43 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1-Chlorooctane* | *100* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 10:43* | *1* |
| *o-Terphenyl* | *98* | | *70 - 130* | *01/25/23 08:39* | *01/25/23 10:43* | *1* |

**Lab Sample ID: LCS 880-44696/2-A**
**Matrix: Solid**
**Analysis Batch: 44706**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 44696**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 999 | 812.5 | | mg/Kg | | 81 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | | | 999 | 951.2 | | mg/Kg | | 95 | 70 - 130 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *95* | | *70 - 130* |
| *o-Terphenyl* | *93* | | *70 - 130* |

**Lab Sample ID: LCSD 880-44696/3-A**
**Matrix: Solid**
**Analysis Batch: 44706**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 44696**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | | | 999 | 900.8 | | mg/Kg | | 90 | 70 - 130 | 10 | 20 |
| Diesel Range Organics (Over C10-C28) | | | 999 | 934.5 | | mg/Kg | | 94 | 70 - 130 | 2 | 20 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *90* | | *70 - 130* |
| *o-Terphenyl* | *93* | | *70 - 130* |

**Lab Sample ID: 880-24038-1 MS**
**Matrix: Solid**
**Analysis Batch: 44706**

**Client Sample ID: BH**
**Prep Type: Total/NA**
**Prep Batch: 44696**

| 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 | 909.8 | | mg/Kg | | 87 | 70 - 130 | | |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 1000 | 1098 | | mg/Kg | | 108 | 70 - 130 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *79* | | *70 - 130* |
| *o-Terphenyl* | *68* | *S1-* | *70 - 130* |

# QC Sample Results

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

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

**Lab Sample ID: 880-24038-1 MSD** — **Client Sample ID: BH**
**Matrix: Solid** — **Prep Type: Total/NA**
**Analysis Batch: 44706** — **Prep Batch: 44696**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO)-C6-C10 | <50.0 | U | 998 | 829.8 | | mg/Kg | | 79 | 70 - 130 | 9 | 20 |
| Diesel Range Organics (Over C10-C28) | <50.0 | U | 998 | 1020 | | mg/Kg | | 101 | 70 - 130 | 7 | 20 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1-Chlorooctane* | *75* | | *70 - 130* |
| *o-Terphenyl* | *64* | *S1-* | *70 - 130* |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 880-44632/1-A** — **Client Sample ID: Method Blank**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 44690**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.00 | U | 5.00 | | mg/Kg | | | 01/25/23 07:14 | 1 |

**Lab Sample ID: LCS 880-44632/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 44690**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 250 | 264.9 | | mg/Kg | | 106 | 90 - 110 |

**Lab Sample ID: LCSD 880-44632/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 44690**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | 250 | 265.3 | | mg/Kg | | 106 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 880-24038-1 MS** — **Client Sample ID: BH**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 44690**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.02 | U F1 | 251 | 330.2 | F1 | mg/Kg | | 130 | 90 - 110 |

**Lab Sample ID: 880-24038-1 MSD** — **Client Sample ID: BH**
**Matrix: Solid** — **Prep Type: Soluble**
**Analysis Batch: 44690**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | <5.02 | U F1 | 251 | 328.2 | F1 | mg/Kg | | 129 | 90 - 110 | 1 | 20 |

# QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## GC VOA

### Prep Batch: 44550

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 880-44550/5-A | Method Blank | Total/NA | Solid | 5035 | |

### Analysis Batch: 44613

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Total/NA | Solid | 8021B | 44619 |
| 880-24038-2 | SW-N | Total/NA | Solid | 8021B | 44619 |
| 880-24038-3 | SW-S | Total/NA | Solid | 8021B | 44619 |
| 880-24038-4 | SW-E | Total/NA | Solid | 8021B | 44619 |
| 880-24038-5 | SW-W | Total/NA | Solid | 8021B | 44619 |
| MB 880-44550/5-A | Method Blank | Total/NA | Solid | 8021B | 44550 |
| MB 880-44619/5-A | Method Blank | Total/NA | Solid | 8021B | 44619 |
| LCS 880-44619/1-A | Lab Control Sample | Total/NA | Solid | 8021B | 44619 |
| LCSD 880-44619/2-A | Lab Control Sample Dup | Total/NA | Solid | 8021B | 44619 |
| 880-24039-A-1-A MS | Matrix Spike | Total/NA | Solid | 8021B | 44619 |
| 880-24039-A-1-B MSD | Matrix Spike Duplicate | Total/NA | Solid | 8021B | 44619 |

### Prep Batch: 44619

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Total/NA | Solid | 5035 | |
| 880-24038-2 | SW-N | Total/NA | Solid | 5035 | |
| 880-24038-3 | SW-S | Total/NA | Solid | 5035 | |
| 880-24038-4 | SW-E | Total/NA | Solid | 5035 | |
| 880-24038-5 | SW-W | Total/NA | Solid | 5035 | |
| MB 880-44619/5-A | Method Blank | Total/NA | Solid | 5035 | |
| LCS 880-44619/1-A | Lab Control Sample | Total/NA | Solid | 5035 | |
| LCSD 880-44619/2-A | Lab Control Sample Dup | Total/NA | Solid | 5035 | |
| 880-24039-A-1-A MS | Matrix Spike | Total/NA | Solid | 5035 | |
| 880-24039-A-1-B MSD | Matrix Spike Duplicate | Total/NA | Solid | 5035 | |

### Analysis Batch: 44741

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Total/NA | Solid | Total BTEX | |
| 880-24038-2 | SW-N | Total/NA | Solid | Total BTEX | |
| 880-24038-3 | SW-S | Total/NA | Solid | Total BTEX | |
| 880-24038-4 | SW-E | Total/NA | Solid | Total BTEX | |
| 880-24038-5 | SW-W | Total/NA | Solid | Total BTEX | |

## GC Semi VOA

### Prep Batch: 44696

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Total/NA | Solid | 8015NM Prep | |
| 880-24038-2 | SW-N | Total/NA | Solid | 8015NM Prep | |
| 880-24038-3 | SW-S | Total/NA | Solid | 8015NM Prep | |
| 880-24038-4 | SW-E | Total/NA | Solid | 8015NM Prep | |
| 880-24038-5 | SW-W | Total/NA | Solid | 8015NM Prep | |
| MB 880-44696/1-A | Method Blank | Total/NA | Solid | 8015NM Prep | |
| LCS 880-44696/2-A | Lab Control Sample | Total/NA | Solid | 8015NM Prep | |
| LCSD 880-44696/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015NM Prep | |
| 880-24038-1 MS | BH | Total/NA | Solid | 8015NM Prep | |
| 880-24038-1 MSD | BH | Total/NA | Solid | 8015NM Prep | |

# QC Association Summary

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## GC Semi VOA

### Analysis Batch: 44706

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Total/NA | Solid | 8015B NM | 44696 |
| 880-24038-2 | SW-N | Total/NA | Solid | 8015B NM | 44696 |
| 880-24038-3 | SW-S | Total/NA | Solid | 8015B NM | 44696 |
| 880-24038-4 | SW-E | Total/NA | Solid | 8015B NM | 44696 |
| 880-24038-5 | SW-W | Total/NA | Solid | 8015B NM | 44696 |
| MB 880-44696/1-A | Method Blank | Total/NA | Solid | 8015B NM | 44696 |
| LCS 880-44696/2-A | Lab Control Sample | Total/NA | Solid | 8015B NM | 44696 |
| LCSD 880-44696/3-A | Lab Control Sample Dup | Total/NA | Solid | 8015B NM | 44696 |
| 880-24038-1 MS | BH | Total/NA | Solid | 8015B NM | 44696 |
| 880-24038-1 MSD | BH | Total/NA | Solid | 8015B NM | 44696 |

### Analysis Batch: 44832

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Total/NA | Solid | 8015 NM | |
| 880-24038-2 | SW-N | Total/NA | Solid | 8015 NM | |
| 880-24038-3 | SW-S | Total/NA | Solid | 8015 NM | |
| 880-24038-4 | SW-E | Total/NA | Solid | 8015 NM | |
| 880-24038-5 | SW-W | Total/NA | Solid | 8015 NM | |

## HPLC/IC

### Leach Batch: 44632

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Soluble | Solid | DI Leach | |
| 880-24038-2 | SW-N | Soluble | Solid | DI Leach | |
| 880-24038-3 | SW-S | Soluble | Solid | DI Leach | |
| 880-24038-4 | SW-E | Soluble | Solid | DI Leach | |
| 880-24038-5 | SW-W | Soluble | Solid | DI Leach | |
| MB 880-44632/1-A | Method Blank | Soluble | Solid | DI Leach | |
| LCS 880-44632/2-A | Lab Control Sample | Soluble | Solid | DI Leach | |
| LCSD 880-44632/3-A | Lab Control Sample Dup | Soluble | Solid | DI Leach | |
| 880-24038-1 MS | BH | Soluble | Solid | DI Leach | |
| 880-24038-1 MSD | BH | Soluble | Solid | DI Leach | |

### Analysis Batch: 44690

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Soluble | Solid | 300.0 | 44632 |
| 880-24038-2 | SW-N | Soluble | Solid | 300.0 | 44632 |
| 880-24038-3 | SW-S | Soluble | Solid | 300.0 | 44632 |
| 880-24038-4 | SW-E | Soluble | Solid | 300.0 | 44632 |
| 880-24038-5 | SW-W | Soluble | Solid | 300.0 | 44632 |
| MB 880-44632/1-A | Method Blank | Soluble | Solid | 300.0 | 44632 |
| LCS 880-44632/2-A | Lab Control Sample | Soluble | Solid | 300.0 | 44632 |
| LCSD 880-44632/3-A | Lab Control Sample Dup | Soluble | Solid | 300.0 | 44632 |
| 880-24038-1 MS | BH | Soluble | Solid | 300.0 | 44632 |
| 880-24038-1 MSD | BH | Soluble | Solid | 300.0 | 44632 |

# Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## Client Sample ID: BH

**Lab Sample ID: 880-24038-1**
**Matrix: Solid**
**Date Collected: 01/23/23 11:00**
**Date Received: 01/24/23 11:14**

| 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 | 44619 | 01/24/23 11:27 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 44613 | 01/24/23 23:29 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 44741 | 01/25/23 15:14 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 44832 | 01/26/23 14:54 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.00 g | 10 mL | 44696 | 01/25/23 08:39 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 44706 | 01/25/23 13:17 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 4.98 g | 50 mL | 44632 | 01/24/23 12:57 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 44690 | 01/25/23 07:32 | CH | EET MID |

## Client Sample ID: SW-N

**Lab Sample ID: 880-24038-2**
**Matrix: Solid**
**Date Collected: 01/23/23 11:15**
**Date Received: 01/24/23 11:14**

| 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 | 44619 | 01/24/23 11:27 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 44613 | 01/24/23 23:50 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 44741 | 01/25/23 15:14 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 44832 | 01/26/23 14:54 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 44696 | 01/25/23 08:39 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 44706 | 01/25/23 14:25 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.03 g | 50 mL | 44632 | 01/24/23 12:57 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 44690 | 01/25/23 07:51 | CH | EET MID |

## Client Sample ID: SW-S

**Lab Sample ID: 880-24038-3**
**Matrix: Solid**
**Date Collected: 01/23/23 11:32**
**Date Received: 01/24/23 11:14**

| 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 | 44619 | 01/24/23 11:27 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 44613 | 01/25/23 00:11 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 44741 | 01/25/23 15:14 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 44832 | 01/26/23 14:54 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 44696 | 01/25/23 08:39 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 44706 | 01/25/23 14:48 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 5.01 g | 50 mL | 44632 | 01/24/23 12:57 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 44690 | 01/25/23 07:57 | CH | EET MID |

## Client Sample ID: SW-E

**Lab Sample ID: 880-24038-4**
**Matrix: Solid**
**Date Collected: 01/23/23 11:45**
**Date Received: 01/24/23 11:14**

| 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 | 44619 | 01/24/23 11:27 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 44613 | 01/25/23 00:32 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 44741 | 01/25/23 15:14 | SM | EET MID |

Eurofins Midland

# Lab Chronicle

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## Client Sample ID: SW-E

**Lab Sample ID: 880-24038-4**
**Matrix: Solid**
**Date Collected: 01/23/23 11:45**
**Date Received: 01/24/23 11:14**

| 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 | | | 44832 | 01/26/23 14:54 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.01 g | 10 mL | 44696 | 01/25/23 08:39 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 44706 | 01/25/23 15:10 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 4.95 g | 50 mL | 44632 | 01/24/23 12:57 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 44690 | 01/25/23 08:03 | CH | EET MID |

## Client Sample ID: SW-W

**Lab Sample ID: 880-24038-5**
**Matrix: Solid**
**Date Collected: 01/23/23 12:00**
**Date Received: 01/24/23 11:14**

| 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 | 44619 | 01/24/23 11:27 | MNR | EET MID |
| Total/NA | Analysis | 8021B | | 1 | 5 mL | 5 mL | 44613 | 01/25/23 00:52 | MNR | EET MID |
| Total/NA | Analysis | Total BTEX | | 1 | | | 44741 | 01/25/23 15:14 | SM | EET MID |
| Total/NA | Analysis | 8015 NM | | 1 | | | 44832 | 01/26/23 14:54 | AJ | EET MID |
| Total/NA | Prep | 8015NM Prep | | | 10.02 g | 10 mL | 44696 | 01/25/23 08:39 | DM | EET MID |
| Total/NA | Analysis | 8015B NM | | 1 | 1 uL | 1 uL | 44706 | 01/25/23 15:33 | AJ | EET MID |
| Soluble | Leach | DI Leach | | | 4.96 g | 50 mL | 44632 | 01/24/23 12:57 | KS | EET MID |
| Soluble | Analysis | 300.0 | | 1 | | | 44690 | 01/25/23 09:05 | CH | EET MID |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

## Laboratory: Eurofins Midland

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

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

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

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

# Method Summary

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

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

**Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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

# Sample Summary

Client: Fasken Oil and Ranch
Project/Site: Shell Fed #2

Job ID: 880-24038-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Depth |
|---|---|---|---|---|---|
| 880-24038-1 | BH | Solid | 01/23/23 11:00 | 01/24/23 11:14 | 4' |
| 880-24038-2 | SW-N | Solid | 01/23/23 11:15 | 01/24/23 11:14 | 4' |
| 880-24038-3 | SW-S | Solid | 01/23/23 11:32 | 01/24/23 11:14 | 4' |
| 880-24038-4 | SW-E | Solid | 01/23/23 11:45 | 01/24/23 11:14 | 4' |
| 880-24038-5 | SW-W | Solid | 01/23/23 12:00 | 01/24/23 11:14 | 4' |

eurofins

Environment Testing
Xenco

# Chain of Custody

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

**Work Order No:** 24038

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager | Grant Huckabay | Bill to. (if different) | |
| Company Name | Fasken Oil and Ranch | Company Name | |
| Address. | 6101 Holiday Hill Road | Address | |
| City, State ZIP | Midland TX 79707 | City State ZIP | |
| Phone | 432-288-5529 | Email | granth@forl.com |

**Work Order Comments**

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

| | | | | | |
|---|---|---|---|---|---|
| Project Name | Shell Fed #2 | Turn Around | | Pres. Code | |
| Project Number | | ☐ Routine | ☒ Rush | | |
| Project Location | | Due Date | 1-25-23 | | |
| Sampler's Name | | TAT starts the day received by the lab if received by 4 30pm | | | |
| PO #: | | | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank | Yes (No) | Wet Ice | Yes No | |
| Samples Received Intact. | (Yes) No | Thermometer ID | IR6 | |
| Cooler Custody Seals | Yes No (N/A) | Correction Factor | -0.2 | |
| Sample Custody Seals. | Yes No (N/A) | Temperature Reading | 3.3 | |
| Total Containers. | | Corrected Temperature | 3.1 | |

**Parameters**

**ANALYSIS REQUEST**

**Preservative Codes**

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

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | TPH 8015M (GRO/DRO/MRO) | BTEX 8021B | CHLORIDE 300 0 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| BH | S | 1-23-23 | 11:00am | 4' | Comp | 1 | X | X | X | |
| SW-N | | | 11:15am | | | | | | | |
| SW-S | | | 11:30am | | | | | | | |
| SW-E | | | 11:45am | | | | | | | |
| SW-W | | | 12:00pm | | | | | | | |

880-24038 Chain of Custody

**Total 200 7 / 6010 200.8 / 6020:** 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg 1631 / 245 1 / 7470 / 7471

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

| Relinquished by (Signature) | Received by (Signature) | Date/Time | Relinquished by (Signature) | Received by (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | | 2 | | |
| 3 | | | 4 | | |
| 5 | | 1/24/23 11:11M | 6 | | |

Revised Date 08/25/2020 Rev 2020.2

# Login Sample Receipt Checklist

Client: Fasken Oil and Ranch Job Number: 880-24038-1

**Login Number: 24038** **List Source: Eurofins Midland**
**List Number: 1**
**Creator: Teel, Brianna**

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

CARDINAL Laboratories

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

May 16, 2023

CONNER MOEHRING

CARMONA RESOURCES

310 W WALL ST SUITE 415

MIDLAND, TX 79701

RE: SHELL FEDERAL #2 DISPOSAL LINE

Enclosed are the results of analyses for samples received by the laboratory on 05/15/23 8:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 1 (4') (H232410-01)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *99.2 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *110 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 2 (4') (H232410-02)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **64.0** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *89.6 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *98.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 3 (4') (H232410-03)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **448** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *92.5 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *100 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 4 (4') (H232410-04)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *102 %* *71.5-134*

**Chloride, SM4500Cl-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 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *90.1 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *97.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 5 (4') (H232410-05)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *102 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **144** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *97.0 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 6 (3') (H232410-06)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **64.0** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *81.7 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *91.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 7 (3') (H232410-07)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **144** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *77.9 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *84.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 8 (3') (H232410-08)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *90.3 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *98.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 9 (3') (H232410-09)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *89.8 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *101 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 10 (1.5') (H232410-10)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 05/15/2023 | 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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *74.7 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *80.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: CS - 11 (1.5') (H232410-11)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *94.5 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *105 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



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CARDINAL Laboratories

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## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 1 (4') (H232410-12)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **16.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *97.7 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 2 (4') (H232410-13)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *102 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *87.6 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *94.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 3 (4') (H232410-14)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **16.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *94.8 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 4 (4') (H232410-15)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *86.6 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *92.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



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CARDINAL Laboratories

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## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 5 (4') (H232410-16)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **16.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *94.6 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *103 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 6 (1') (H232410-17)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **272** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *90.0 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *97.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 7 (3') (H232410-18)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *102 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **64.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *91.9 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *100 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 8 (4') (H232410-19)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *102 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **160** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *94.2 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *104 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 9 (4') (H232410-20)

**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 | 05/15/2023 | ND | 2.13 | 107 | 2.00 | 7.87 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.11 | 105 | 2.00 | 7.66 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 2.07 | 103 | 2.00 | 8.13 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 6.35 | 106 | 6.00 | 7.31 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

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

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **112** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 193 | 96.7 | 200 | 2.53 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 191 | 95.7 | 200 | 0.429 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *91.9 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *113 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 10 (2.5') (H232410-21)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *113 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| **DRO >C10-C28*** | **11.1** | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *97.7 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *109 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 11 (1') (H232410-22)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *108 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *104 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *117 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 12 (3') (H232410-23)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *107 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **16.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| **DRO >C10-C28*** | **10.8** | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *107 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *117 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 13 (1.5') (H232410-24)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *108 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **16.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *105 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *118 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 14 (1.5') (H232410-25)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *111 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **32.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *102 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *115 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 15 (3') (H232410-26)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *107 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **112** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| **DRO >C10-C28*** | **11.5** | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *101 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *112 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 16 (1.5') (H232410-27)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *110 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *98.2 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *108 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 17 (1.5') (H232410-28)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *110 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **48.0** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| **DRO >C10-C28*** | **11.0** | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *102 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *113 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 18 (1.5') (H232410-29)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *110 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **128** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| DRO >C10-C28* | <10.0 | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *101 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *112 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Analytical Results For:

CARMONA RESOURCES
CONNER MOEHRING
310 W WALL ST SUITE 415
MIDLAND TX, 79701
Fax To:

| | | | |
|---|---|---|---|
| Received: | 05/15/2023 | Sampling Date: | 05/12/2023 |
| Reported: | 05/16/2023 | Sampling Type: | Soil |
| Project Name: | SHELL FEDERAL #2 DISPOSAL LINE | Sampling Condition: | Cool & Intact |
| Project Number: | 1155 | Sample Received By: | Tamara Oldaker |
| Project Location: | FASKEN - EDDY COUNTY, NM | | |

### Sample ID: SW - 19 (1.5') (H232410-30)

**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 | 05/15/2023 | ND | 1.92 | 95.9 | 2.00 | 8.71 | |
| Toluene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.88 | 93.8 | 2.00 | 6.83 | |
| Ethylbenzene* | <0.050 | 0.050 | 05/15/2023 | ND | 1.96 | 97.8 | 2.00 | 8.23 | |
| Total Xylenes* | <0.150 | 0.150 | 05/15/2023 | ND | 5.89 | 98.2 | 6.00 | 6.63 | |
| Total BTEX | <0.300 | 0.300 | 05/15/2023 | ND | | | | | |

*Surrogate: 4-Bromofluorobenzene (PID* *110 %* *71.5-134*

**Chloride, SM4500Cl-B** mg/kg Analyzed By: AC

| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
|---|---|---|---|---|---|---|---|---|---|
| **Chloride** | **192** | 16.0 | 05/15/2023 | ND | 432 | 108 | 400 | 3.77 | |

**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 | 05/15/2023 | ND | 199 | 99.5 | 200 | 4.05 | |
| **DRO >C10-C28*** | **10.6** | 10.0 | 05/15/2023 | ND | 192 | 95.8 | 200 | 10.3 | |
| EXT DRO >C28-C36 | <10.0 | 10.0 | 05/15/2023 | ND | | | | | |

*Surrogate: 1-Chlorooctane* *99.2 %* *48.2-134*

*Surrogate: 1-Chlorooctadecane* *110 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

## Notes and Definitions

| | |
|---|---|
| S-04 | The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| RPD | Relative Percent Difference |
| ** | Samples not received at proper temperature of 6°C or below. |
| *** | Insufficient time to reach temperature. |
| - | Chloride by SM4500Cl-B does not require samples be received at or below 6°C |
| | Samples reported on an as received basis (wet) unless otherwise noted on report |

Cardinal Laboratories *=Accredited Analyte



Celey D. Keene, Lab Director/Quality Manager

# Chain of Custody

Work Order No: H232410

Page 1 of 3

| | | | |
|---|---|---|---|
| Project Manager: | Conner Moehring | Bill to: (if different) | Grant Huckabay/Addison Guelker |
| Company Name: | Carmona Resources | Company Name: | Fasken Oil and Ranch |
| Address: | 310 W Wall St Ste 500 | Address: | 6101 Holiday Hill Road |
| City, State ZIP: | Midland, TX 79701 | City, State ZIP: | Midland, Texas 79707 |
| Phone: | 432-813-6823 | Email: | Granth@forl.com/addisong@forl.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | Shell Federal #2 Disposal line | Turn Around | Pres. Code |
| Project Number: | 1155 | ☐ Routine ☑ Rush | |
| Project Location | Eddy County, New Mexico | Due Date: 24 Hrs | |
| Sampler's Name: | CRM | | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | Yes (No) |
| Received Intact: | (Yes) No | Thermometer ID: | 113 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.6°c |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 3.9°c |
| Total Containers: | | Corrected Temperature: | 3.3°c |

**Preservative Codes**

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

| | Sample Identification | Date | Time | Soil | Water | Grab/ Comp | # of Cont | BTEX 8021B | TPH 8015M ( GRO + DRO + MRO) | Chloride 4500 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CS-1 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 2 | CS-2 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 3 | CS-3 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 4 | CS-4 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 5 | CS-5 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 6 | CS-6 (3') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 7 | CS-7 (3') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 8 | CS-8 (3') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 9 | CS-9 (3') | 5/12/2023 | | X | | | 1 | X | X | X | |
| 10 | CS-10 (1.5') | 5/12/2023 | | X | | | 1 | X | X | X | |

Comments: Email results to Mike Carmona mcarmona@carmonaresources.com & Conner Moehring cmoehring@carmonaresources.com

| Relinquished by: (Signature) | Date/Time | Received by: (Signature) | Date/Time |
|---|---|---|---|
| | 5-15-23 0820 | | |

# Chain of Custody

Work Order No: H232410



Page 2 of 3

| | | | |
|---|---|---|---|
| Project Manager: | Conner Moehring | Bill to: (if different) | Grant Huckabay/Addison Guelker |
| Company Name: | Carmona Resources | Company Name: | Fasken Oil and Ranch |
| Address: | 310 W Wall St Ste 500 | Address: | 6101 Holiday Hill Road |
| City, State ZIP: | Midland, TX 79701 | City, State ZIP: | Midland, Texas 79707 |
| Phone: | 432-813-6823 | Email: | Granth@forl.com/addisong@forl.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | Shell Federal #2 Disposal line | Turn Around | Pres. Code |
| Project Number: | 1155 | ☐ Routine ☑ Rush | |
| Project Location | Eddy County, New Mexico | Due Date: 24 Hrs | |
| Sampler's Name: | CRM | | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes No | Wet Ice: | Yes No |
| Received Intact: | Yes No | Thermometer ID: | 113 |
| Cooler Custody Seals: | Yes No N/A | Correction Factor: | -0.6c |
| Sample Custody Seals: | Yes No N/A | Temperature Reading: | 3.9c |
| Total Containers: | | Corrected Temperature: | 3.3c |

**Preservative Codes**

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

| Sample Identification | Date | Time | Soil | Water | Grab/ Comp | # of Cont | BTEX 8021B | TPH 8015M ( GRO + DRO + MRO) | Chloride 4500 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| CS-11 (1.5') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-1 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-2 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-3 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-4 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-5 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-6 (1') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-7 (3') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-8 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |
| SW-9 (4') | 5/12/2023 | | X | | | 1 | X | X | X | |

Comments: Email results to Mike Carmona mcarmona@carmonaresources.com & Conner Moehring cmoehring@carmonaresources.com

| Relinquished by: (Signature) | Date/Time | Received by: (Signature) | Date/Time |
|---|---|---|---|
| | 5-15-23 0820 | | |

# Chain of Custody

Work Order No: H232410

Page 3 of 3

| | | | |
|---|---|---|---|
| Project Manager: | Conner Moehring | Bill to: (if different) | Grant Huckabay/Addison Guelker |
| Company Name: | Carmona Resources | Company Name: | Fasken Oil and Ranch |
| Address: | 310 W Wall St Ste 500 | Address: | 6101 Holiday Hill Road |
| City, State ZIP: | Midland, TX 79701 | City, State ZIP: | Midland, Texas 79707 |
| Phone: | 432-813-6823 | Email: | Granth@forl.com/addisong@forl.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | Shell Federal #2 Disposal line | Turn Around | ☐ Routine ☑ Rush |
| Project Number: | 1155 | Due Date: | 24 Hrs |
| Project Location | Eddy County, New Mexico | | |
| Sampler's Name: | CRM | | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | Yes (No) |
| Received Intact: | (Yes) No | Thermometer ID: | 113 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.6c |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 3.9c |
| Total Containers: | | Corrected Temperature: | 3.3c |

**Preservative Codes**

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

| Sample Identification | Date | Time | Soil | Water | Grab/ Comp | # of Cont | Pres. Code | Parameters: BTEX 8021B | TPH 8015M ( GRO + DRO + MRO) | Chloride 4500 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SW-10 (2.5') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-11 (1') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-12 (3') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-13 (1.5') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-14 (1.5') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-15 (3') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-16 (1.5') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-17 (1.5') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-18 (1.5') | 5/12/2023 | | X | | | 1 | | X | X | X | |
| SW-19 (1.5') | 5/12/2023 | | X | | | 1 | | X | X | X | |

Comments: Email results to Mike Carmona mcarmona@carmonaresources.com & Conner Moehring cmoehring@carmonaresources.com

| Relinquished by: (Signature) | Date/Time | Received by: (Signature) | Date/Time |
|---|---|---|---|
| | 5-15-23 0820 | | |

**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 223935

## CONDITIONS

| | |
|---|---|
| Operator:<br>FASKEN OIL & RANCH LTD<br>6101 Holiday Hill Rd<br>Midland, TX 79707 | OGRID:<br>151416 |
| | Action Number:<br>223935 |
| | Action Type:<br>[C-141] Release Corrective Action (C-141) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| rhamlet | We have received your closure report and final C-141 for Incident #NAPP2228544134 SHELL FEDERAL 2 SWD DISPOSAL LINE, thank you. This closure is approved. | 10/31/2023 |