CARMONA RESOURCES

SITE INFORMATION

Closure Report
Nighthawk State Com #003H
Lea County, New Mexico
Incident ID: NAPP2403040271
Unit O Sec 20 T18S R35E
32.7266235, -103.4785538

Produced Water
Point of Release: Wellhead
Release Date: 1/29/24
Volume Released: 635 Barrels of Produced Water
Volume Recovered: 485 Barrels of Produced Water

CARMONA RESOURCES

Prepared for:
Marathon Oil Corporation
990 Town and Country Blvd,
Houston, Texas 77024

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

310 West Wall Street, Suite 500
Midland TX, 79701
432.813.1992

CARMONA RESOURCES

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310 West Wall Street, Suite 500
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CARMONA RESOURCES

March 25, 2024

New Mexico Oil Conservation Division
1220 South St, Francis Drive
Santa Fe, NM 87505

Re: Closure Report
Nighthawk State Com #003H
Marathon Oil Corporation
NAPP2403040271
Site Location: Unit O, S20, T18S, R35E
(Lat 32.7266235°, Long -103.4785538°)
Lea County, New Mexico

To Whom It May Concern:

On behalf of Marathon Oil Corporation (Marathon), Carmona Resource, LLC has prepared this letter to document additional site activities for the Nighthawk State Com #003H. The site is located at the GPS 32.7266235°, -103.4785538° within Unit O, S20, T18S, R35E in Lea County, New Mexico.

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 January 29, 2024, caused by BOP rods leaking from non-operated offset frac interference. The incident resulted in the release of six-hundred-and-thirty-five (635) barrels of produced water, with four-hundred-and-eighty-five (485) barrels recovered. Refer to Figure 3. The initial C-141 form is attached in Appendix C.

2.0 Site Characterization and Groundwater

The site is located within a low karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, no known water sources are within a 0.50-mile radius of the location. The nearest identified well is located approximately 0.45 miles North of the site in S20, T18S, R35E and was drilled in 1953. The well has a reported depth to groundwater of 78’ below ground surface (ft bgs). A copy of the associated Summary report is attached in Appendix D of the amended report.

On August 15, 2023, Carmona Resources, LLC was onsite to drill a groundwater determination bore to 55’ below ground surface within a 0.50-mile radius of the location. The groundwater determination bore is located approximately 0.04 miles southeast of the site at 32.726286°, -103.479090° in S20, T18S, and R35E. The bore was left open for 72 hours and tagged with a water level meter. The bore did not shown signs of water at a depth of 55’ below the ground surface (bgs). A copy of the groundwater determination bore log is attached in Appendix D of the amended report.

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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).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 2,500 mg/kg (GRO + DRO + MRO).
- TPH: 1,000 mg/kg (GRO + DRO).
- Chloride: 10,000 mg/kg.

4.0 Site Assessment Activities

Initial Assessment/Drilling Activities

On January 29, 2024, Wescom Inc. was onsite to perform an initial 6" scrape of the release. A total of 149 cubic yards were hauled off location for proper disposal. On February 12, 2024, Carmona Resources, LLC was onsite to perform an initial assessment to evaluate soil impacts stemming from the release. A total of sixteen (16) boreholes (BH-1 through BH-16) and thirty (30) horizontal samples (H-1 through H-30) were advanced to depths ranging from the surface to 6' bgs inside and surrounding the release to assess 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 Laboratories 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. See Table 1 for the analytical results.

Vertical Delineation

All areas were below regulatory limits for TPH, Benzene, total BTEX, and Chloride concentrations. Refer to Table 1.

Horizontal Delineation

The horizontal locations of H-7, H-9, H-16, H-17, H-18, and H-19 showed TPH concentrations ranging from 109 mg/kg to 4,840 mg/kg and chloride concentrations ranging from 162 mg/kg to 778 mg/kg. Refer to Table 1.

On March 7, 2024, Carmona Resources, LLC returned to the site with Wescom Inc. to conduct a surface scrape and remove the topsoil in areas of H-7, H-9, H-16, H-17, H-18, and H-19. The areas were scraped 6" bgs. A total of 10 cubic yards were hauled off location for proper disposal. The horizontal areas were recollected and placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories 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.

All areas were below regulatory limits for TPH, Benzene, total BTEX, and Chloride concentrations. Refer to Table 1.

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5.0 Conclusions

Based on the assessment results and the analytical data, no further actions are required at the site. The final C-141 is attached in Appendix A of the original request for closure. Marathon formally requests the closure of the spill. If you have any questions regarding this report or need additional information, please contact us at 432-813-1992.

Sincerely,
Carmona Resources, LLC

Clinton Merritt
Sr. Project Manager

Ashton Thielke
Sr. Project Manager

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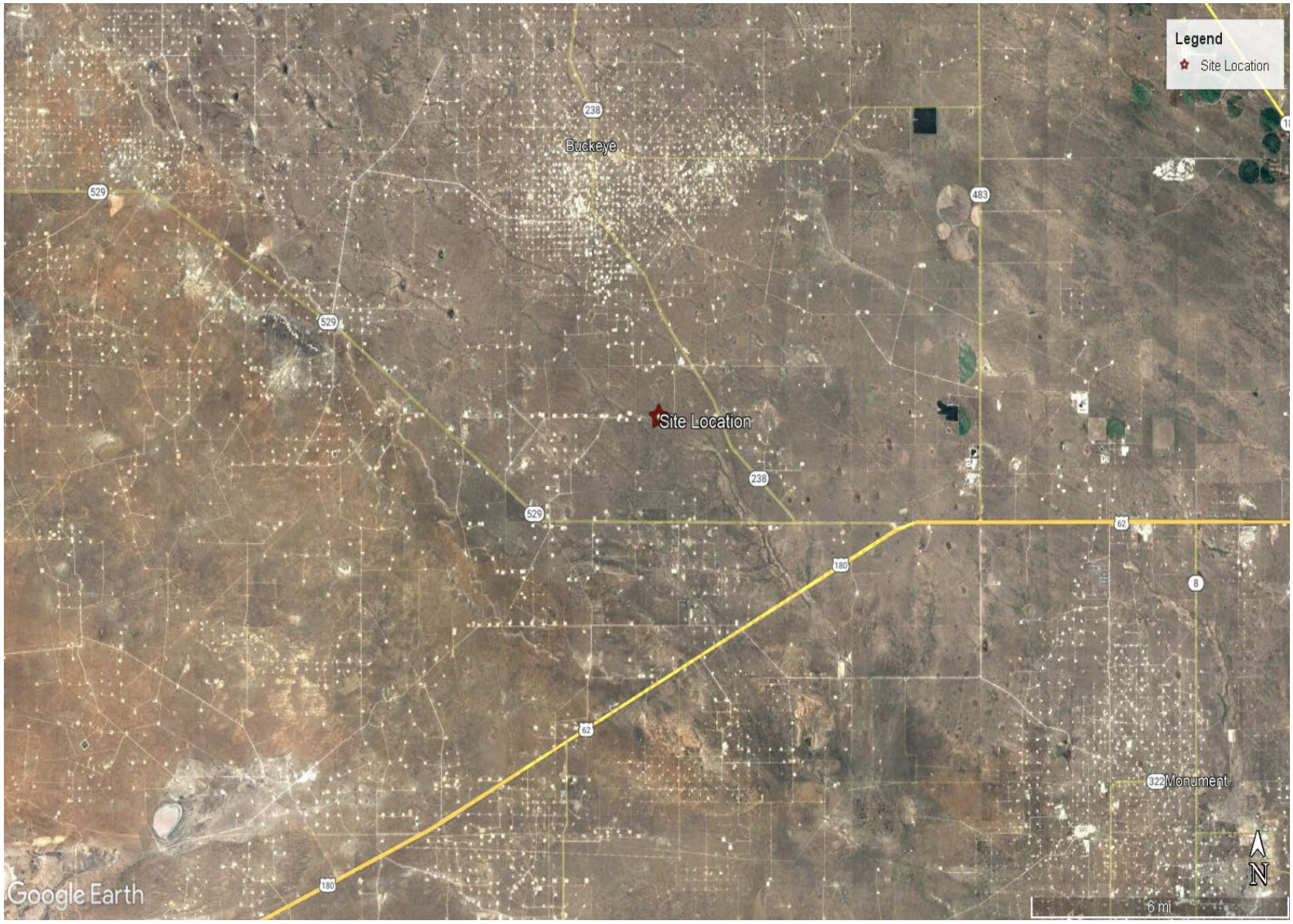
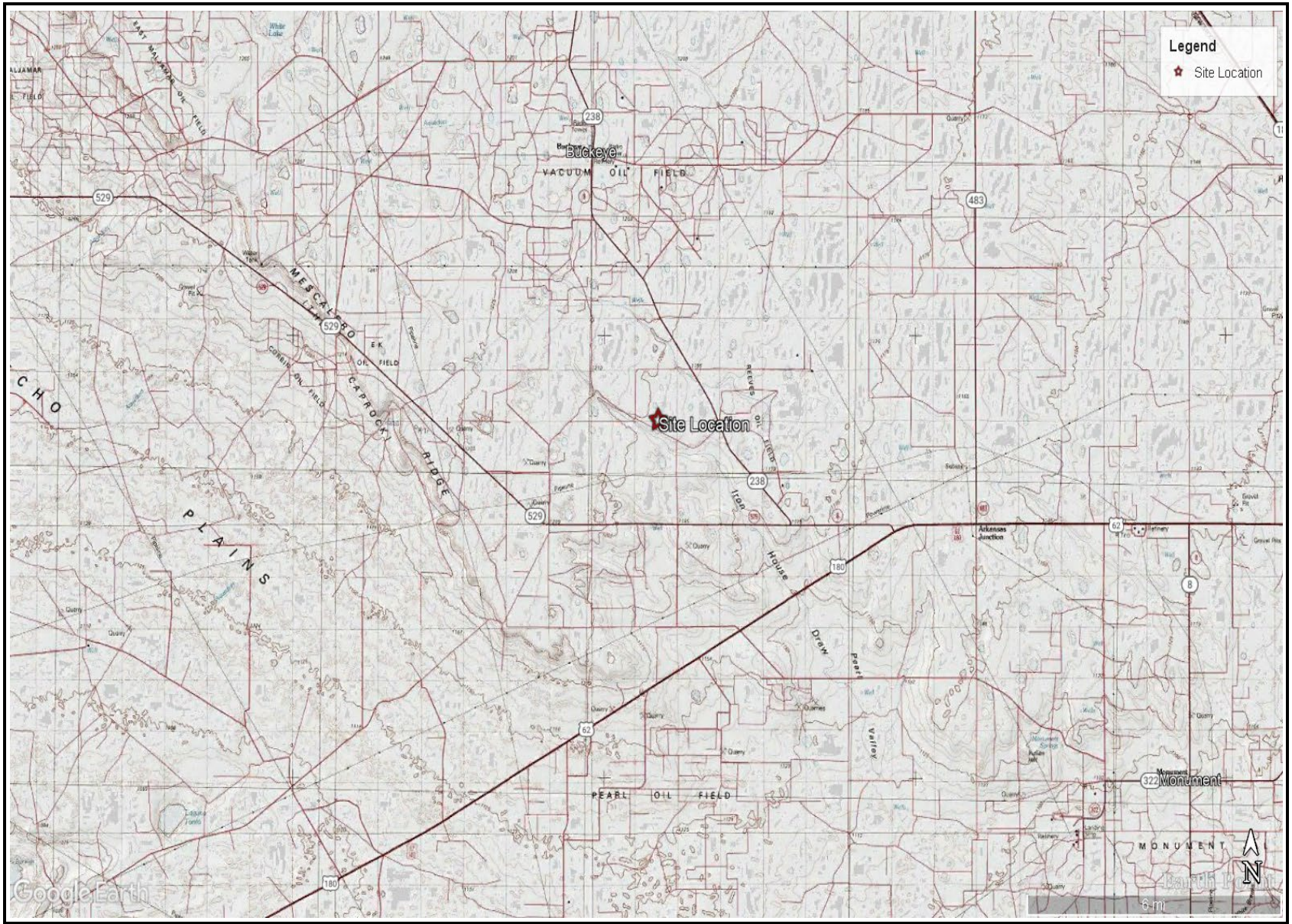
FIGURES

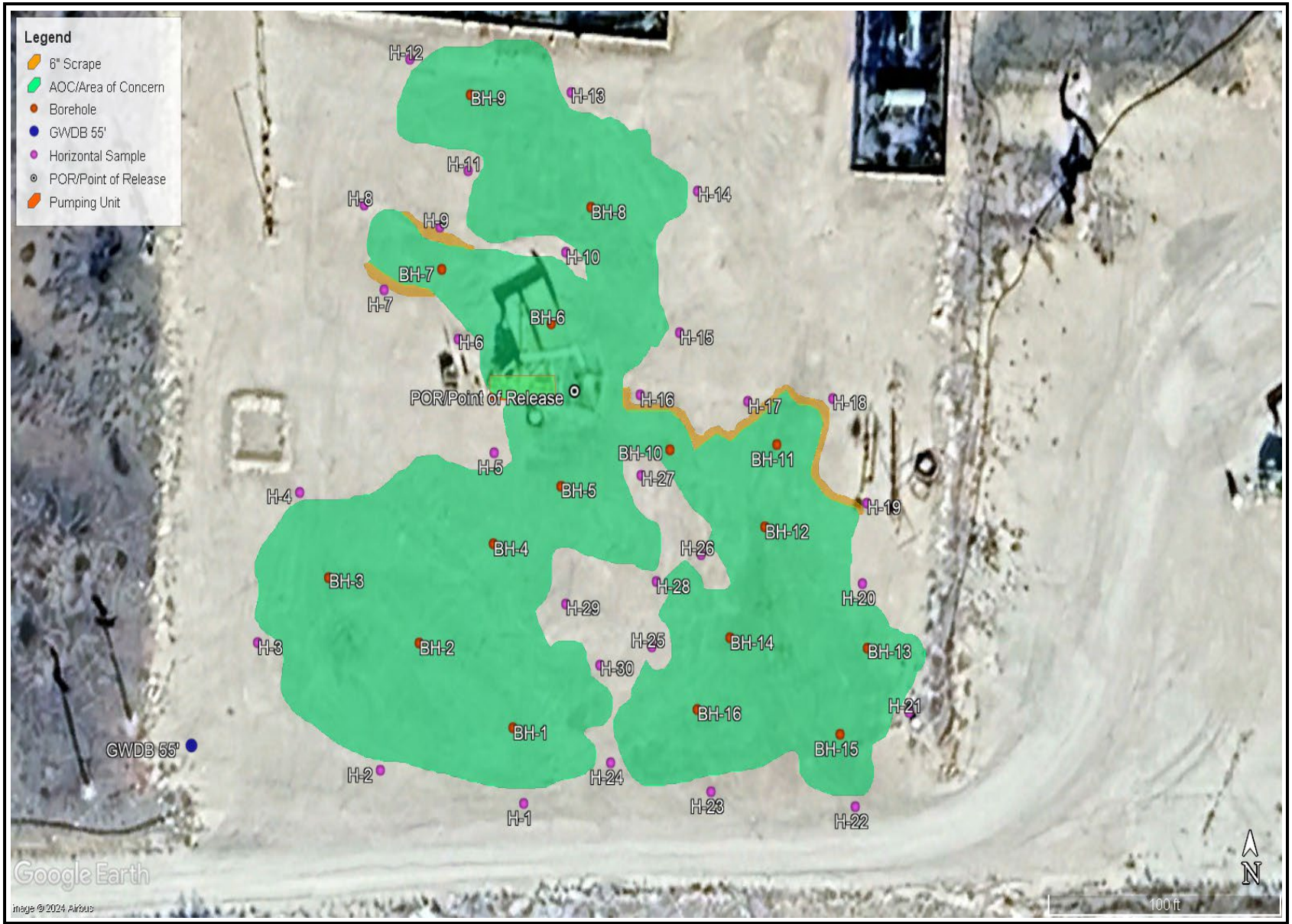
CARMONA RESOURCES



OVERVIEW MAP MARATHON OIL CORPORATION NIGHTHAWK STATE COM #003H LEA COUNTY, NEW MEXICO 32.7266235, -103.4785538	CARMONA RESOURCES	FIGURE 1



TOPOGRAPHIC MAP MARATHON OIL CORPORATION NIGHTHAWK STATE COM #003H LEA COUNTY, NEW MEXICO 32.7266235, -103.4785538	CARMONA RESOURCES	FIGURE 2



SAMPLE LOCATION MAP MARATHON OIL CORPORATION NIGHTHAWK STATE COM #003H LEA COUNTY, NEW MEXICO 32.7266235, -103.4785538	CARMONA RESOURCES	FIGURE 3

APPENDIX A

CARMONA RESOURCES

Table 1
Marathon Oil Co.
Nighthawk State Com #003H
Lea County, New Mexico

Sample ID	Date	Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			GRO	DRO	MRO	Total						
BH-1	2/12/2024	0-1	<49.7	<49.7	<49.7	<49.7	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	429
	"	2.0	<50.4	<50.4	<50.4	<50.4	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	60.8
	"	3.0	<50.3	<50.3	<50.3	<50.3	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	31.1
BH-2	2/12/2024	0-1	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	193
	"	2.0	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	114
	"	3.0	<49.7	<49.7	<49.7	<49.7	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	85.2
BH-3	2/12/2024	0-1	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	81.3
	"	2.0	<49.8	<49.8	<49.8	<49.8	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	114
	"	3.0	<50.1	<50.1	<50.1	<50.1	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	3,870
BH-4	2/12/2024	0-1	<50.1	70.3	<50.1	70.3	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	1,840
	"	2.0	<50.5	1,190	<50.5	1,190	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	262
	"	3.0	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	204
BH-5	2/12/2024	0-1	<49.7	<49.7	<49.7	<49.7	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	339
	"	2.0	<50.5	<50.5	<50.5	<50.5	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	243
	"	3.0	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	63.7
BH-6	2/12/2024	0-1	<49.9	<49.9	<49.9	<49.9	0.00232	<0.00202	0.00224	0.0150	0.0196	602
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	88.2
	"	3.0	<50.2	<50.2	<50.2	<50.2	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	66.1
BH-7	2/12/2024	0-1	<50.1	<50.1	<50.1	<50.1	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	227
	"	2.0	<50.4	<50.4	<50.4	<50.4	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	268
	"	3.0	<50.5	<50.5	<50.5	<50.5	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	393
BH-8	2/12/2024	0-1	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	230
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	85.6
	"	3.0	<50.4	<50.4	<50.4	<50.4	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	52.9
BH-9	2/12/2024	0-1	<50.3	<50.3	<50.3	<50.3	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	668
	"	2.0	<50.2	<50.2	<50.2	<50.2	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	184
	"	3.0	<50.4	<50.4	<50.4	<50.4	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	341
BH-10	2/12/2024	0-1	<50.5	235	<50.5	235	<0.0998	<0.0998	<0.0998	<0.200	<0.200	669
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	59.2
	"	3.0	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	58.8
BH-11	2/12/2024	0-1	<50.0	381	<50.0	381	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	1,860
	"	2.0	<49.8	101	<49.8	101	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	280
	"	3.0	<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	252
BH-12	2/12/2024	0-1	<50.2	<50.2	<50.2	<50.2	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	479
	"	2.0	<50.4	<50.4	<50.4	<50.4	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	114
	"	3.0	<50.2	<50.2	<50.2	<50.2	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	122
BH-13	2/12/2024	0-1	<50.3	<50.3	<50.3	<50.3	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	233
	"	2.0	<50.4	<50.4	<50.4	<50.4	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	337
	"	3.0	<50.5	<50.5	<50.5	<50.5	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	232
	"	4.0	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	109
	"	5.0	<49.6	<49.6	<49.6	<49.6	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	93.0
	"	6.0	<50.1	<50.1	<50.1	<50.1	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	120
BH-14	2/12/2024	0-1	<50.4	120	<50.4	120	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	557
	"	2.0	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	203
	"	3.0	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	67.6
BH-15	2/12/2024	0-1	<50.5	<50.5	<50.5	<50.5	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	192
	"	2.0	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	114
	"	3.0	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	138
BH-16	2/12/2024	0-1	<49.8	62.0	<49.8	62.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	782
	"	2.0	<49.6	<49.6	<49.6	<49.6	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	94
	"	3.0	<50.2	<50.2	<50.2	<50.2	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	52.3
Regulatory Criteria[A]						2,500 mg/kg	10 mg/kg				50 mg/kg	10,000 mg/kg

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

Table 1
Marathon Oil Co.
Nighthawk State Com #003H
Lea 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						
H-1	2/12/2024	0-0.5	<49.7	<49.7	<49.7	<49.7	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	345
H-2	2/12/2024	0-0.5	<50.4	<50.4	<50.4	<50.4	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	175
H-3	2/12/2024	0-0.5	<49.7	<49.7	<49.7	<49.7	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	324
H-4	2/12/2024	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	335
H-5	2/12/2024	0-0.5	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	345
H-6	2/12/2024	0-0.5	<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00397	<0.00397	376
H-7	2/12/2024	0-0.5	<49.6	<49.6	<49.6	<49.6	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	**712**
	3/7/2024	0-0.5	<50.5	<50.5	<50.5	<50.5	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	496
H-8	2/12/2024	0-0.5	<50.3	<50.3	<50.3	<50.3	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	342
H-9	2/12/2024	0-0.5	<50.1	<50.1	<50.1	<50.1	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	**669**
	3/7/2024	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	349
H-10	2/12/2024	0-0.5	<50.4	<50.4	<50.4	<50.4	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	170
H-11	2/12/2024	0-0.5	<50.5	<50.5	<50.5	<50.5	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	161
H-12	2/12/2024	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	147
H-13	2/12/2024	0-0.5	<49.9	71.4	<49.9	71.4	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	421
H-14	2/12/2024	0-0.5	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	452
H-15	2/12/2024	0-0.5	<49.7	<49.7	<49.7	<49.7	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	93.1
H-16	2/12/2024	0-0.5	<49.6	**109**	<49.6	**109**	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	**778**
	3/7/2024	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	57.8
H-17	2/12/2024	0-0.5	<50.1	**106**	<50.1	**106**	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	**763**
	3/7/2024	0-0.5	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	218
H-18	2/12/2024	0-0.5	<50.4	**3,860**	**982**	**4,840**	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	162
	3/7/2024	0-0.5	<49.5	<49.5	<49.5	<49.5	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	396
H-19	2/12/2024	0-0.5	<50.3	**209**	87.5	**297**	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	**626**
	3/7/2024	0-0.5	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	207
H-20	2/12/2024	0-0.5	<50.3	74.5	<50.3	74.5	<0.00198	<0.00198	<0.00198	<0.00396	<0.00396	207
H-21	2/12/2024	0-0.5	<50.2	<50.2	<50.2	<50.2	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	135
H-22	2/12/2024	0-0.5	<50.4	<50.4	<50.4	<50.4	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	133
H-23	2/12/2024	0-0.5	<50.5	<50.5	<50.5	<50.5	<0.00199	<0.00199	<0.00199	<0.00398	<0.00398	130
H-24	2/12/2024	0-0.5	<49.7	<49.7	<49.7	<49.7	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	81.4
H-25	2/12/2024	0-0.5	<49.6	<49.6	<49.6	<49.6	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	264
H-26	2/12/2024	0-0.5	<49.6	<49.6	<49.6	<49.6	<0.00202	<0.00202	<0.00202	<0.00404	<0.00404	221
H-27	2/12/2024	0-0.5	<50.3	<50.3	<50.3	<50.3	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	20.8
H-28	2/12/2024	0-0.5	<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	50.8
H-29	2/12/2024	0-0.5	<50.4	<50.4	<50.4	<50.4	<0.00200	<0.00200	<0.00200	<0.00399	<0.00399	135
H-30	2/12/2024	0-0.5	<50.5	<50.5	<50.5	<50.5	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	185
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 Samples
Removed

APPENDIX B

CARMONA RESOURCES

PHOTOGRAPHIC LOG

Marathon Oil Corporation

Photograph No. 1

Facility: Nighthawk State Com #003H

County: Lea County, New Mexico

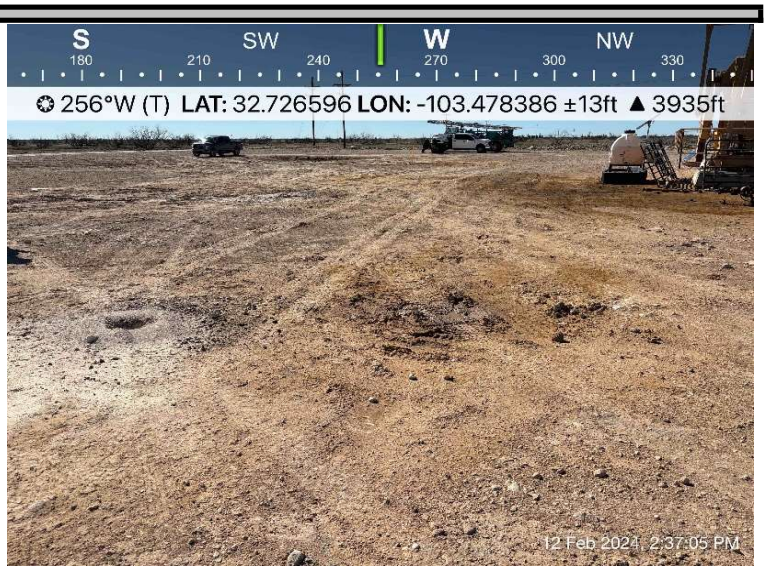
Description:
View Northeast of BH-14 and BH-13.

Photograph No. 2

Facility: Nighthawk State Com #003H

County: Lea County, New Mexico

Description:
View Northeast of BH-2, BH-4, BH-5 and BH-10.

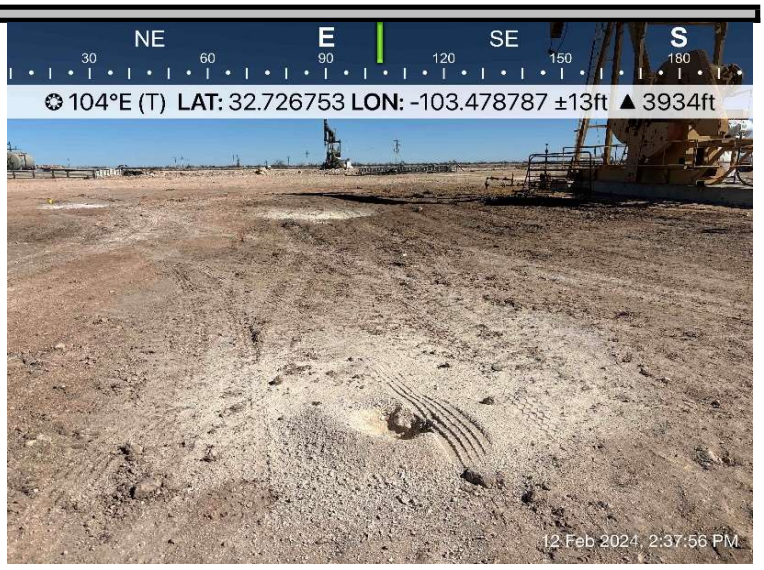


Photograph No. 3

Facility: Nighthawk State Com #003H

County: Lea County, New Mexico

Description:
View East of BH-5, BH-6 and BH-7.



PHOTOGRAPHIC LOG

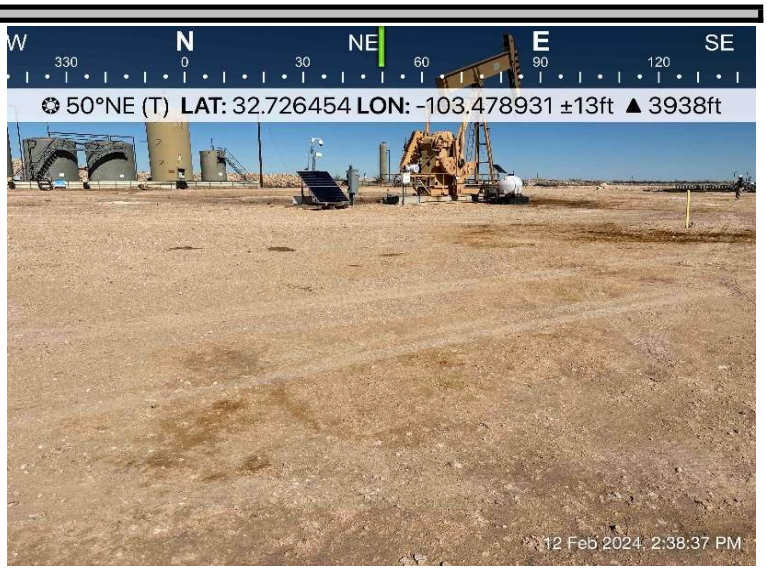
Marathon Oil Corporation

Photograph No. 4

Facility: Nighthawk State Com #003H

County: Lea County, New Mexico

Description:
View Northeast of BH-14 and BH-13.

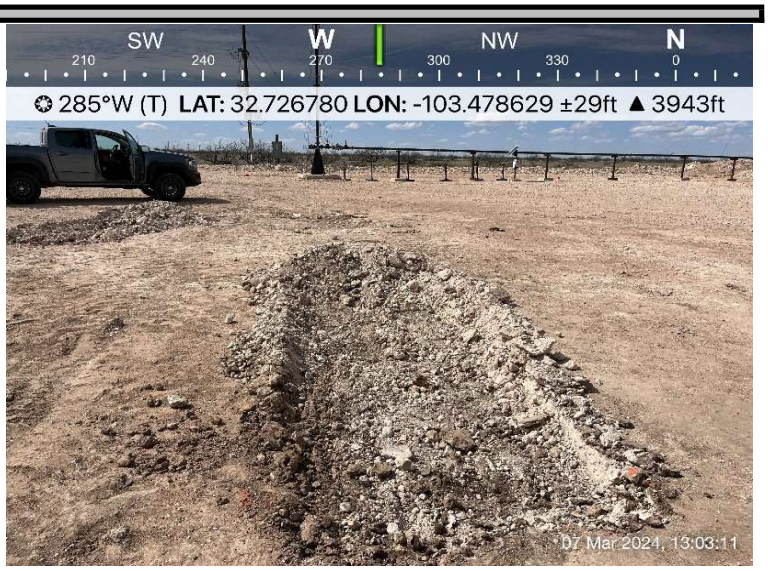


Photograph No. 5

Facility: Nighthawk State Com #003H

County: Lea County, New Mexico

Description:
View Northeast of BH-2, BH-4, BH-5 and BH-10.



Photograph No. 6

Facility: Nighthawk State Com #003H

County: Lea County, New Mexico

Description:
View Southeast of 6" scrape at H-16, H-17, H-18, and H-19.

APPENDIX C

CARMONA RESOURCES

OCD Permitting

[C-141] Initial C-141 (C-141-V-INITIAL) Application

Submission Information

Submission ID:	299913	**Districts:**	Hobbs
Operator:	[372098] MARATHON OIL PERMIAN LLC	**Counties:**	Lea
Description:	MARATHON OIL PERMIAN LLC [372098] , NIGHTHAWK STATE COM #003H , nAPP2403040271		
Status:	APPROVED		
Status Date:	01/31/2024		
References (2):	30-025-41950, nAPP2403040271		

Forms

Attachments: Volume Calculation

Questions

Prerequisites

Incident ID (n#)	**nAPP2403040271**
Incident Name	**NAPP2403040271 NIGHTHAWK STATE COM #003H @ 30-025-41950**
Incident Type	**Produced Water Release**
Incident Status	**Initial C-141 Received**
Incident Well	**[30-025-41950] NIGHTHAWK STATE COM #003H**

Location of Release Source

Please answer all the questions in this group.

Site Name	NIGHTHAWK STATE COM #003H
Date Release Discovered	01/29/2024
Surface Owner	State

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	*Not answered.*

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)	Rod BOPs had been proactively shut in but were found to be leaking due to non-operated offset frac interference.

Nature and Volume of Release (continued)

Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**

With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: Isaac Castro Email: icastro@marathonoil.com Date: 01/31/2024

Site Characterization

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	*Not answered.*
What method was used to determine the depth to ground water	*Not answered.*
Did this release impact groundwater or surface water	*Not answered.*

What is the minimum distance, between the closest lateral extents of the release and the following surface areas:

A continuously flowing watercourse or any other significant watercourse	*Not answered.*
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	*Not answered.*
An occupied permanent residence, school, hospital, institution, or church	*Not answered.*
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	*Not answered.*
Any other fresh water well or spring	*Not answered.*
Incorporated municipal boundaries or a defined municipal fresh water well field	*Not answered.*
A wetland	*Not answered.*
A subsurface mine	*Not answered.*
An (non-karst) unstable area	*Not answered.*
Categorize the risk of this well / site being in a karst geology	*Not answered.*
A 100-year floodplain	*Not answered.*
Did the release impact areas not on an exploration, development, production, or storage site	*Not answered.*

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	No

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

Comments

No comments found for this submission.

Conditions

Summary: *scwells (1/31/2024),* None

Reasons

No reasons found for this submission.

Fees

Summary:

		Created	Type	Amount	Status	Saved
LFUOL-240104-C-1410	Fee	1/4/2024	SB553 A.(2) [ADMIN]	$150.00	Paid [PAID]	1/4/2024
	Payment	1/31/2024	Credit Card [CC]	$150.00	Paid [PAID]	1/31/2024

Go Back

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1220 South St. Francis Drive | Santa Fe, NM 87505 | P: (505) 476-3200 | F: (505) 476-3220

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	
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: _____ Title: _____

Signature:_____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

APPENDIX D

CARMONA RESOURCES

Received by OCD: 3/27/2024 4:56:13 PM

Nearest Water Well

Marathon Oil Permian LLC

78' - Drilled 1953

82.10' - Drilled 1996

55' GWDB - Drilled 2023

NIGHTHAWK STATE COM #003H

95' - Drilled 1961

Legend

- 0.04 Miles
- 0.45 Miles
- 0.45 Miles
- 0.50 Mile Radius
- 0.61 Miles
- Groudnwater Determination Bore
- NIGHTHAWK STATE COM #003H
- NMSEO Water Well
- USGS Water Well

Google Earth

2000 ft

N

Released to Imaging: 5/1/2024 11:11:02 AM

Received by OCD: 3/27/2024 4:56:13 PM

Low Karst

Marathon Oil Permian LLC

Legend

Low

NIGHTHAWK STATE COM #003H

NIGHTHAWK STATE COM #003H

N

2000 ft

Released to Imaging: 5/1/2024 11:11:02 AM

CARMONA RESOURCES

Project Name :	**Nighthawk State Com 3H**	**Date :**	**Tuesday, August 15, 2023**
Project No. :	**2090**	**Sampler :**	**Jim Hawley**
Location :	**Lea County, New Mexico**		
Coordinates :	**32.726286°, -103.479090°**	**Driller :**	**H&R Enterprises, LLC**
Elevation (ft) :	**3,946**	**Method :**	**Air Rotary**

Depth (ft.)	WL	Soil Description	Lithology
0		(0') - White medium to small well cemented anugular gravel, with 50% fine, silty, softy loose sand. Dry, no odor, no organics (GM).	
5		(5') - White fine silty soft loose sand. Dry, no odor, no organics (SM).	
10		(10') - White fine silty soft loose sand. Dry, no odor, no organics (SM).	
15		(15') - White small to medium well cemented angular gravel, with 50% fine, silty, soft loose sand. Dry, no odor, no organics (GM).	
20		(20') - White to light brown fine, silty, soft, loose sand. Dry, no odor, no organics (SM).	
25		(25') - White to light brown fine, silty, soft, loose sand. Dry, no odor, no organics (SM).	
30		(30') - White to light brown fine, silty, soft, loose sand. Dry, no odor, no organics (SM).	
35		(35') - White to light brown fine, silty, soft, loose sand. Dry, no odor, no organics (SM).	
40		(40') - White to light brown fine, silty, soft, loose sand. Dry, no odor, no organics (SM).	
45		(45') - White to light brown fine, silty, soft, loose sand. Dry, no odor, no organics (SM).	
50			

Depth (ft.)	WL	Soil Description	Lithology
50		(50') - White medium to small well cemented angular gravel, with 75% fine, silty, loose, softy sand. Dry, no odor, no organics (GM).	
55			
60			
65			
70			
75			
80			
85			
90			
95			
105			

Comments : (8/15/23) Boring terminated at 55.0' with no presence of groundwater or moisture. (8/21/23) Bore measured at 55.0' using Heron Groundwater Meter, no detection of moisture inside bore.

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

Groundwater | New Mexico | GO

Click to hideNews Bulletins

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

Groundwater levels for 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 =
- 324420103281501

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

USGS 324420103281501 18S.35E.20.41111

Lea County, New Mexico
Latitude 32°43'59", Longitude 103°28'46" NAD27
Land-surface elevation 3,937.00 feet above NGVD29
The depth of the well is 175 feet below land surface.
This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) 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 of measurement	? Water level approval status
1953-09-11		D	62610		3861.18	NGVD29	1	Z			
1953-09-11		D	62611		3862.74	NAVD88	1	Z			
1953-09-11		D	72019	75.82			1	Z			
1953-10-07		D	62610		3861.23	NGVD29	1	Z			
1953-10-07		D	62611		3862.79	NAVD88	1	Z			
1953-10-07		D	72019	75.77			1	Z			
1953-11-20		D	62610		3861.24	NGVD29	1	Z			
1953-11-20		D	62611		3862.80	NAVD88	1	Z			
1953-11-20		D	72019	75.76			1	Z			
1954-01-11		D	62610		3861.23	NGVD29	1	Z			
1954-01-11		D	62611		3862.79	NAVD88	1	Z			
1954-01-11		D	72019	75.77			1	Z			
1954-03-02		D	62610		3861.15	NGVD29	1	Z			
1954-03-02		D	62611		3862.71	NAVD88	1	Z			
1954-03-02		D	72019	75.85			1	Z			
1954-05-05		D	62610		3861.13	NGVD29	1	Z			
1954-05-05		D	62611		3862.69	NAVD88	1	Z			
1954-05-05		D	72019	75.87			1	Z			
1954-07-13		D	62610		3861.23	NGVD29	1	Z			
1954-07-13		D	62611		3862.79	NAVD88	1	Z			
1954-07-13		D	72019	75.77			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	? Status
1954-09-14		D	62610		3861.18	NGVD29	1	Z
1954-09-14		D	62611		3862.74	NAVD88	1	Z
1954-09-14		D	72019	75.82			1	Z
1954-11-09		D	62610		3861.15	NGVD29	1	Z
1954-11-09		D	62611		3862.71	NAVD88	1	Z
1954-11-09		D	72019	75.85			1	Z
1955-01-06		D	62610		3861.19	NGVD29	1	Z
1955-01-06		D	62611		3862.75	NAVD88	1	Z
1955-01-06		D	72019	75.81			1	Z
1955-03-19		D	62610		3861.24	NGVD29	1	Z
1955-03-19		D	62611		3862.80	NAVD88	1	Z
1955-03-19		D	72019	75.76			1	Z
1955-05-28		D	62610		3861.15	NGVD29	1	Z
1955-05-28		D	62611		3862.71	NAVD88	1	Z
1955-05-28		D	72019	75.85			1	Z
1955-07-15		D	62610		3861.17	NGVD29	1	Z
1955-07-15		D	62611		3862.73	NAVD88	1	Z
1955-07-15		D	72019	75.83			1	Z
1955-09-22		D	62610		3861.21	NGVD29	1	Z
1955-09-22		D	62611		3862.77	NAVD88	1	Z
1955-09-22		D	72019	75.79			1	Z
1955-11-28		D	62610		3861.21	NGVD29	1	Z
1955-11-28		D	62611		3862.77	NAVD88	1	Z
1955-11-28		D	72019	75.79			1	Z
1956-01-05		D	62610		3861.27	NGVD29	1	Z
1956-01-05		D	62611		3862.83	NAVD88	1	Z
1956-01-05		D	72019	75.73			1	Z
1956-03-14		D	62610		3861.30	NGVD29	1	Z
1956-03-14		D	62611		3862.86	NAVD88	1	Z
1956-03-14		D	72019	75.70			1	Z
1956-05-09		D	62610		3861.22	NGVD29	1	Z
1956-05-09		D	62611		3862.78	NAVD88	1	Z
1956-05-09		D	72019	75.78			1	Z
1956-07-26		D	62610		3861.21	NGVD29	1	Z
1956-07-26		D	62611		3862.77	NAVD88	1	Z
1956-07-26		D	72019	75.79			1	Z
1956-09-06		D	62610		3861.26	NGVD29	1	Z
1956-09-06		D	62611		3862.82	NAVD88	1	Z
1956-09-06		D	72019	75.74			1	Z
1956-11-30		D	62610		3861.22	NGVD29	1	Z
1956-11-30		D	62611		3862.78	NAVD88	1	Z
1956-11-30		D	72019	75.78			1	Z
1957-01-12		D	62610		3861.23	NGVD29	1	Z
1957-01-12		D	62611		3862.79	NAVD88	1	Z
1957-01-12		D	72019	75.77			1	Z
1958-01-14		D	62610		3861.15	NGVD29	1	Z
1958-01-14		D	62611		3862.71	NAVD88	1	Z
1958-01-14		D	72019	75.85			1	Z
1960-01-15		D	62610		3861.20	NGVD29	1	Z
1960-01-15		D	62611		3862.76	NAVD88	1	Z
1960-01-15		D	72019	75.80			1	Z
1961-01-17		D	62610		3861.30	NGVD29	1	Z
1961-01-17		D	62611		3862.86	NAVD88	1	Z
1961-01-17		D	72019	75.70			1	Z
1962-01-16		D	62610		3861.14	NGVD29	1	Z
1962-01-16		D	62611		3862.70	NAVD88	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	? Status
1962-01-16		D	72019	75.86			1	Z
1967-09-20		D	62610		3860.81	NGVD29	1	Z
1967-09-20		D	62611		3862.37	NAVD88	1	Z
1967-09-20		D	72019	76.19			1	Z
1971-01-20		D	62610		3860.51	NGVD29	1	Z
1971-01-20		D	62611		3862.07	NAVD88	1	Z
1971-01-20		D	72019	76.49			1	Z
1976-02-12		D	62610		3860.15	NGVD29	1	Z
1976-02-12		D	62611		3861.71	NAVD88	1	Z
1976-02-12		D	72019	76.85			1	Z
1981-03-13		D	62610		3859.10	NGVD29	1	Z
1981-03-13		D	62611		3860.66	NAVD88	1	Z
1981-03-13		D	72019	77.90			1	Z
1986-04-02		D	62610		3857.65	NGVD29	1	Z
1986-04-02		D	62611		3859.21	NAVD88	1	Z
1986-04-02		D	72019	79.35			1	Z
1991-03-15		D	62610		3857.80	NGVD29	1	Z
1991-03-15		D	62611		3859.36	NAVD88	1	Z
1991-03-15		D	72019	79.20			1	Z
1996-01-12		D	62610		3854.90	NGVD29	1	S
1996-01-12		D	62611		3856.46	NAVD88	1	S
1996-01-12		D	72019	82.10			1	S

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
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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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: 2023-10-31 17:55:22 EDT
0.3 0.26 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	Tws	Rng	X	Y
	L 02053				20	18S	35E	642464	3622723*

Driller License:	17	**Driller Company:**	A.M. BRININSTOOL		
Driller Name:	M.I. SIGNER				
Drill Start Date:	01/27/1953	**Drill Finish Date:**	02/13/1953	**Plug Date:**	
Log File Date:	02/24/1953	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	12.00	**Depth Well:**	175 feet	**Depth Water:**	78 feet

Water Bearing Stratifications:	Top	Bottom	Description
	120	130	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	107	172

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

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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
	L 04562	3	1		29	18S	35E	641874	3621315*

Driller License:	111	**Driller Company:**	BURKE, EDWARD B.		
Driller Name:					
Drill Start Date:	12/20/1960	**Drill Finish Date:**	12/21/1960	**Plug Date:**	01/17/1961
Log File Date:	12/29/1960	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	156 feet	**Depth Water:**	95 feet

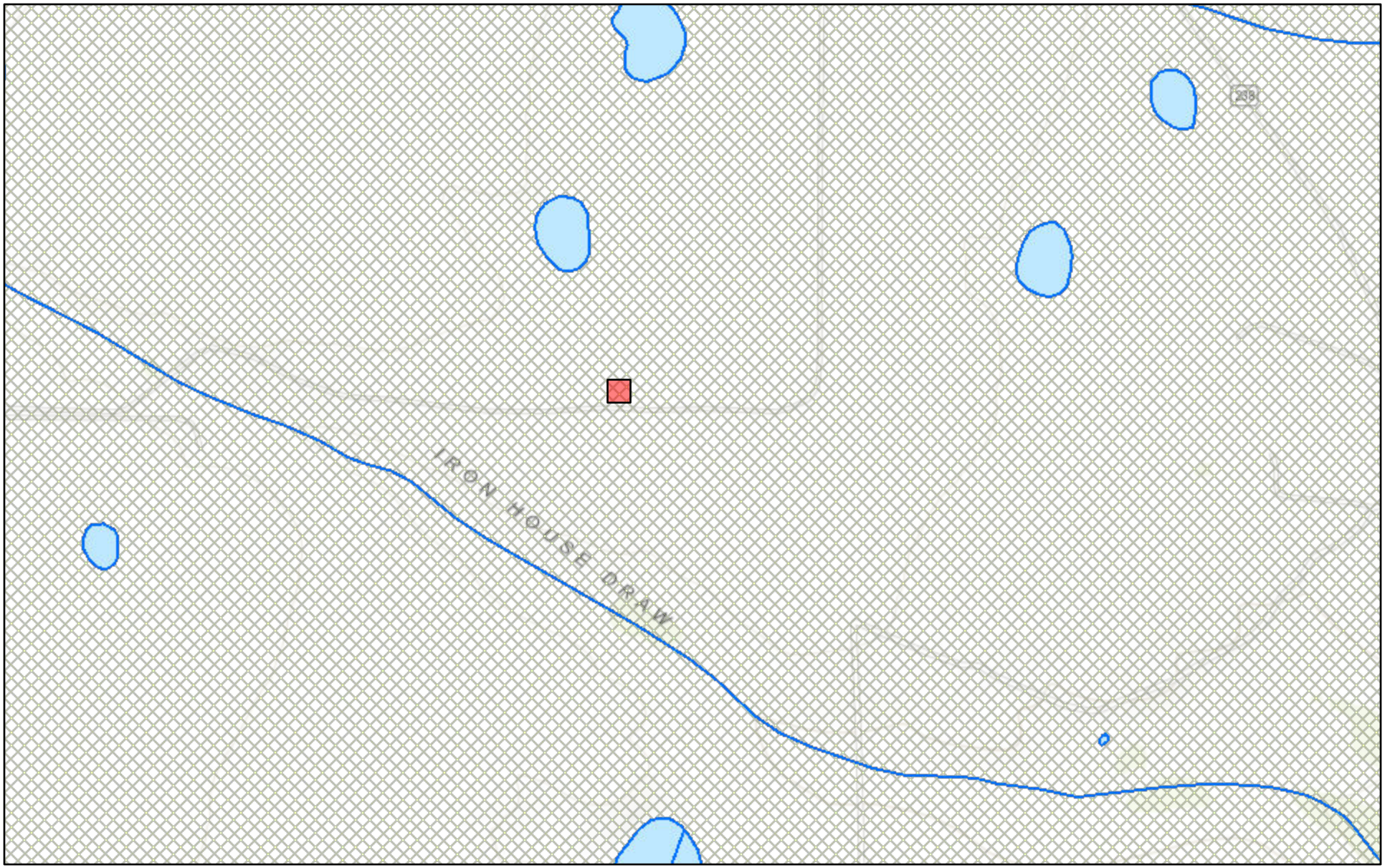
Water Bearing Stratifications:	Top	Bottom	Description
	98	156	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	110	154

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

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

New Mexico NFHL Data



July 18, 2023

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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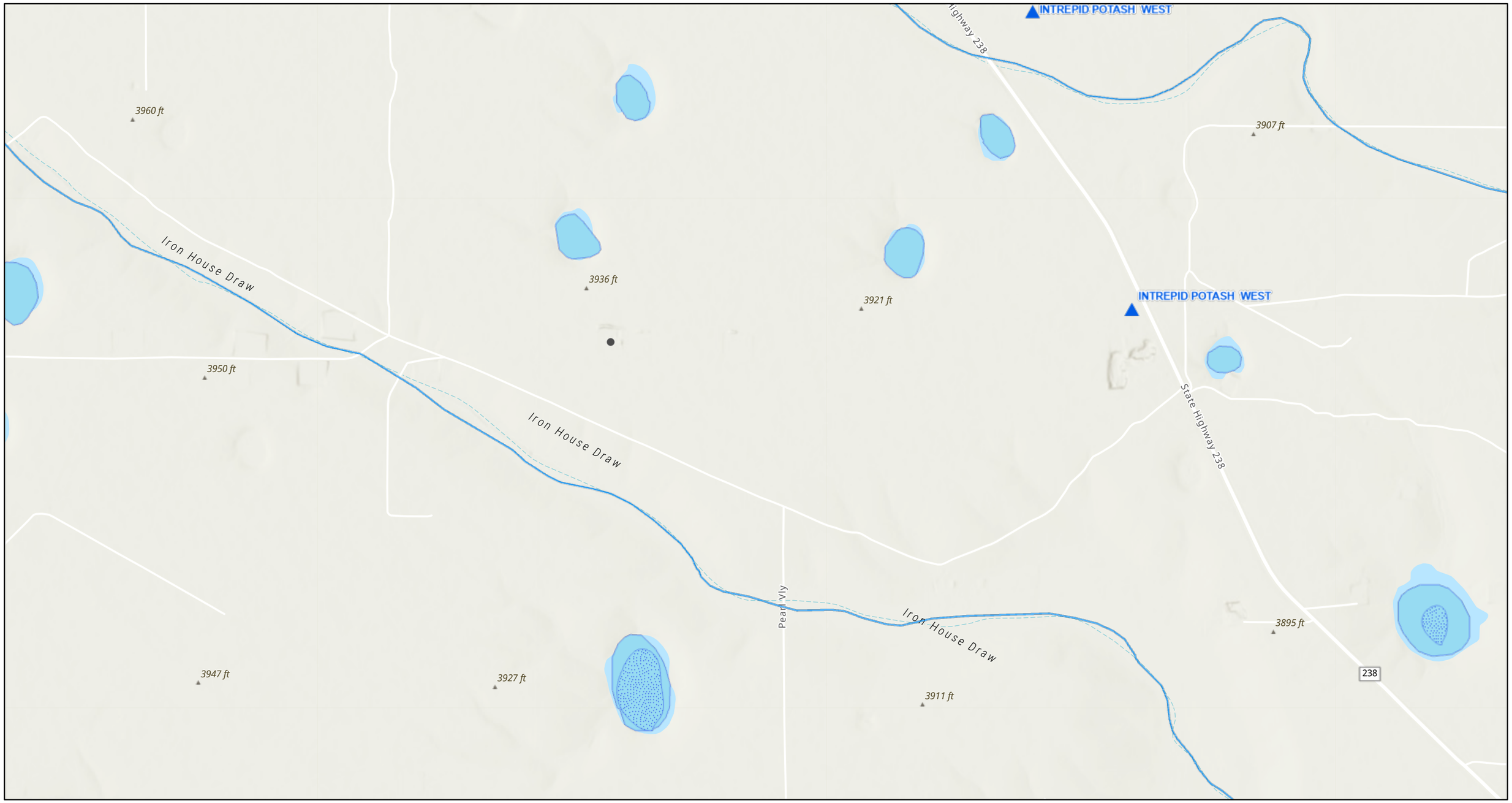
NIGHTHAWK STATE COM #003H



1/29/2024, 3:24:48 PM

- OSW Water Bodys
- OSE Probable Playas
- OSE Streams
- NMED Drinking Water Systems

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, NM OSE

APPENDIX E

CARMONA RESOURCES

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/20/2024 1:05:37 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39336-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

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2/20/2024 1:05:37 PM

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39336-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Nighthawk State Com #003H

Job ID: 880-39336-1

Job ID: 880-39336-1 Eurofins Midland

Job Narrative
880-39336-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-1 (0-1') (880-39336-1), BH-1 (2') (880-39336-2) and BH-1 (3') (880-39336-3).

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73294 and analytical batch 880-73409 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-39343-A-1-C), (880-39343-A-1-D MS) and (880-39343-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73294 and analytical batch 880-73409 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73083 and 880-73090 and analytical batch 880-73402 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-39246-A-41-E MS) and (880-39246-A-41-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-6152-A-1-D), (890-6152-A-1-E MS) and (890-6152-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73083 and analytical batch 880-73402 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Case Narrative

Client: Carmona Resources Job ID: 880-39336-1
Project: Nighthawk State Com #003H

Job ID: 880-39336-1 (Continued) Eurofins Midland

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: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

Client Sample ID: BH-1 (0-1')

Lab Sample ID: 880-39336-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:04	02/20/24 07:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:04	02/20/24 07:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:04	02/20/24 07:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:04	02/20/24 07:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:04	02/20/24 07:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:04	02/20/24 07:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/15/24 15:04*	*02/20/24 07:01*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/15/24 15:04*	*02/20/24 07:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/20/24 07:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/18/24 14:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 14:57	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 14:57	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*02/15/24 17:04*	*02/18/24 14:57*	*1*
o-Terphenyl	*79*		*70 - 130*	*02/15/24 17:04*	*02/18/24 14:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**429**		5.02		mg/Kg			02/15/24 14:12	1

Client Sample ID: BH-1 (2')

Lab Sample ID: 880-39336-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/20/24 07:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/20/24 07:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/20/24 07:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:04	02/20/24 07:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/20/24 07:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:04	02/20/24 07:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*02/15/24 15:04*	*02/20/24 07:21*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/15/24 15:04*	*02/20/24 07:21*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

Client Sample ID: BH-1 (2')

Lab Sample ID: 880-39336-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/20/24 07:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/17/24 18:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/14/24 15:40	02/17/24 18:34	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/14/24 15:40	02/17/24 18:34	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/14/24 15:40	02/17/24 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*02/14/24 15:40*	*02/17/24 18:34*	*1*
o-Terphenyl	*94*		*70 - 130*	*02/14/24 15:40*	*02/17/24 18:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60.8**		4.95		mg/Kg			02/15/24 14:19	1

Client Sample ID: BH-1 (3')

Lab Sample ID: 880-39336-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/20/24 07:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/20/24 07:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/20/24 07:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:04	02/20/24 07:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/20/24 07:42	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:04	02/20/24 07:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*02/15/24 15:04*	*02/20/24 07:42*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/15/24 15:04*	*02/20/24 07:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/20/24 07:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/18/24 04:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/14/24 12:09	02/18/24 04:27	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/14/24 12:09	02/18/24 04:27	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

Client Sample ID: BH-1 (3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39336-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/14/24 12:09	02/18/24 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*02/14/24 12:09*	*02/18/24 04:27*	*1*
o-Terphenyl	*96*		*70 - 130*	*02/14/24 12:09*	*02/18/24 04:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.1**		5.05		mg/Kg			02/15/24 14:26	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea 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)
880-39336-1	BH-1 (0-1')	123	100
880-39336-2	BH-1 (2')	120	97
880-39336-3	BH-1 (3')	117	97
890-6143-A-1-E MS	Matrix Spike	116	99
890-6143-A-1-F MSD	Matrix Spike Duplicate	116	97
LCS 880-73277/1-A	Lab Control Sample	105	102
LCSD 880-73277/2-A	Lab Control Sample Dup	103	97
MB 880-73254/5-A	Method Blank	128	119
MB 880-73277/5-A	Method Blank	130	118

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)
880-39246-A-41-E MS	Matrix Spike	65 S1-	62 S1-
880-39246-A-41-F MSD	Matrix Spike Duplicate	74	69 S1-
880-39336-1	BH-1 (0-1')	74	79
880-39336-2	BH-1 (2')	97	94
880-39336-3	BH-1 (3')	91	96
880-39343-A-1-D MS	Matrix Spike	68 S1-	65 S1-
880-39343-A-1-E MSD	Matrix Spike Duplicate	67 S1-	64 S1-
890-6152-A-1-E MS	Matrix Spike	65 S1-	58 S1-
890-6152-A-1-F MSD	Matrix Spike Duplicate	41 S1-	35 S1-
LCS 880-73083/2-A	Lab Control Sample	84	86
LCS 880-73090/2-A	Lab Control Sample	101	101
LCS 880-73294/2-A	Lab Control Sample	104	123
LCSD 880-73083/3-A	Lab Control Sample Dup	96	98
LCSD 880-73090/3-A	Lab Control Sample Dup	94	95
LCSD 880-73294/3-A	Lab Control Sample Dup	88	102
MB 880-73083/1-A	Method Blank	187 S1+	207 S1+
MB 880-73090/1-A	Method Blank	204 S1+	228 S1+
MB 880-73294/1-A - RA2	Method Blank	162 S1+	178 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73254/5-A
Matrix: Solid
Analysis Batch: 73429

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 12:30	02/19/24 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 12:30	02/19/24 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 12:30	02/19/24 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 12:30	02/19/24 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 12:30	02/19/24 11:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 12:30	02/19/24 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*02/15/24 12:30*	*02/19/24 11:56*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*02/15/24 12:30*	*02/19/24 11:56*	*1*

Lab Sample ID: MB 880-73277/5-A
Matrix: Solid
Analysis Batch: 73429

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73277

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/19/24 23:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/19/24 23:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/19/24 23:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:04	02/19/24 23:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:04	02/19/24 23:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:04	02/19/24 23:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*02/15/24 15:04*	*02/19/24 23:35*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*02/15/24 15:04*	*02/19/24 23:35*	*1*

Lab Sample ID: LCS 880-73277/1-A
Matrix: Solid
Analysis Batch: 73429

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73277

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1135		mg/Kg		113	70 - 130
Toluene	0.100	0.1013		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.1133		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	0.200	0.2121		mg/Kg		106	70 - 130
o-Xylene	0.100	0.1034		mg/Kg		103	70 - 130

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

Lab Sample ID: LCSD 880-73277/2-A
Matrix: Solid
Analysis Batch: 73429

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73277

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1122		mg/Kg		112	70 - 130	1	35

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCSD 880-73277/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73429 — **Prep Batch: 73277**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1014		mg/Kg		101	70 - 130	0	35
Ethylbenzene			0.100	0.1118		mg/Kg		112	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2009		mg/Kg		100	70 - 130	5	35
o-Xylene			0.100	0.09643		mg/Kg		96	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-6143-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73429 — **Prep Batch: 73277**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.100	0.1042		mg/Kg		104	70 - 130
Toluene	<0.00199	U	0.100	0.09708		mg/Kg		96	70 - 130
Ethylbenzene	<0.00199	U	0.100	0.1075		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2091		mg/Kg		104	70 - 130
o-Xylene	<0.00199	U	0.100	0.1096		mg/Kg		109	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-6143-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73429 — **Prep Batch: 73277**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1057		mg/Kg		105	70 - 130	1	35
Toluene	<0.00199	U	0.101	0.1028		mg/Kg		102	70 - 130	6	35
Ethylbenzene	<0.00199	U	0.101	0.1106		mg/Kg		110	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2262		mg/Kg		112	70 - 130	8	35
o-Xylene	<0.00199	U	0.101	0.1090		mg/Kg		108	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-73083/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73402 — **Prep Batch: 73083**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/13/24 16:07	02/17/24 07:48	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

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

Lab Sample ID: MB 880-73083/1-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73083

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/24 16:07	02/17/24 07:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/24 16:07	02/17/24 07:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*187*	*S1+*	*70 - 130*	*02/13/24 16:07*	*02/17/24 07:48*	*1*
o-Terphenyl	*207*	*S1+*	*70 - 130*	*02/13/24 16:07*	*02/17/24 07:48*	*1*

Lab Sample ID: LCS 880-73083/2-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73083

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	949.2		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	817.1		mg/Kg		82	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: LCSD 880-73083/3-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73083

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	803.6		mg/Kg		80	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	837.6		mg/Kg		84	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Lab Sample ID: 880-39246-A-41-E MS
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73083

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1010	991.8		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1010	615.0	F1	mg/Kg		58	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*65*	*S1-*	*70 - 130*
o-Terphenyl	*62*	*S1-*	*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39246-A-41-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73402 — **Prep Batch: 73083**

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	<49.6	U	1010	1107		mg/Kg		106	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1010	693.0	F1	mg/Kg		66	70 - 130	12	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*69*	*S1-*	*70 - 130*

Lab Sample ID: MB 880-73090/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73402 — **Prep Batch: 73090**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/13/24 16:42	02/17/24 19:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/24 16:42	02/17/24 19:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/24 16:42	02/17/24 19:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*204*	*S1+*	*70 - 130*	*02/13/24 16:42*	*02/17/24 19:18*	*1*
o-Terphenyl	*228*	*S1+*	*70 - 130*	*02/13/24 16:42*	*02/17/24 19:18*	*1*

Lab Sample ID: LCS 880-73090/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73402 — **Prep Batch: 73090**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	956.0		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1048		mg/Kg		105	70 - 130		

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

Lab Sample ID: LCSD 880-73090/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73402 — **Prep Batch: 73090**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	854.7		mg/Kg		85	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	879.6		mg/Kg		88	70 - 130	17	20

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

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

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

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	95		70 - 130

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

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73090

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

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	65	S1-	70 - 130
o-Terphenyl	58	S1-	70 - 130

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

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73090

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	41	S1-	70 - 130
o-Terphenyl	35	S1-	70 - 130

Lab Sample ID: LCS 880-73294/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	922.7		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1070		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	123		70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCSD 880-73294/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	962.2		mg/Kg		96	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	970.8		mg/Kg		97	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 880-39343-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	1010	642.8	F1	mg/Kg		60	70 - 130
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	660.0	F1	mg/Kg		63	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*68*	*S1-*	*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

Lab Sample ID: 880-39343-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

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	<50.2	U F1	1010	645.6	F1	mg/Kg		60	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	657.6	F1	mg/Kg		62	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*67*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73294/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
OII Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2 (Continued)

Lab Sample ID: MB 880-73294/1-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73294

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane - RA2	162	S1+	70 - 130	02/15/24 17:04	02/18/24 07:37	1
o-Terphenyl - RA2	178	S1+	70 - 130	02/15/24 17:04	02/18/24 07:37	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73116/1-A
Matrix: Solid
Analysis Batch: 73199

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 11:00	1

Lab Sample ID: LCS 880-73116/2-A
Matrix: Solid
Analysis Batch: 73199

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.1		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-73116/3-A
Matrix: Solid
Analysis Batch: 73199

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	258.2		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 880-39331-A-2-B MS
Matrix: Solid
Analysis Batch: 73199

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	362		249	603.6		mg/Kg		97	90 - 110		

Lab Sample ID: 880-39331-A-2-C MSD
Matrix: Solid
Analysis Batch: 73199

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	362		249	625.5		mg/Kg		106	90 - 110	4	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73254/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-1	BH-1 (0-1')	Total/NA	Solid	5035	
880-39336-2	BH-1 (2')	Total/NA	Solid	5035	
880-39336-3	BH-1 (3')	Total/NA	Solid	5035	
MB 880-73277/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73277/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73277/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6143-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-6143-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-1	BH-1 (0-1')	Total/NA	Solid	8021B	73277
880-39336-2	BH-1 (2')	Total/NA	Solid	8021B	73277
880-39336-3	BH-1 (3')	Total/NA	Solid	8021B	73277
MB 880-73254/5-A	Method Blank	Total/NA	Solid	8021B	73254
MB 880-73277/5-A	Method Blank	Total/NA	Solid	8021B	73277
LCS 880-73277/1-A	Lab Control Sample	Total/NA	Solid	8021B	73277
LCSD 880-73277/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73277
890-6143-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	73277
890-6143-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73277

Analysis Batch: 73680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-1	BH-1 (0-1')	Total/NA	Solid	Total BTEX	
880-39336-2	BH-1 (2')	Total/NA	Solid	Total BTEX	
880-39336-3	BH-1 (3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-2	BH-1 (2')	Total/NA	Solid	8015NM Prep	
MB 880-73083/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73083/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73083/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39246-A-41-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39246-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 73090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-3	BH-1 (3')	Total/NA	Solid	8015NM Prep	
MB 880-73090/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73090/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6152-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6152-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

GC Semi VOA

Prep Batch: 73294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-1	BH-1 (0-1')	Total/NA	Solid	8015NM Prep	
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39343-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39343-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-2	BH-1 (2')	Total/NA	Solid	8015B NM	73083
880-39336-3	BH-1 (3')	Total/NA	Solid	8015B NM	73090
MB 880-73083/1-A	Method Blank	Total/NA	Solid	8015B NM	73083
MB 880-73090/1-A	Method Blank	Total/NA	Solid	8015B NM	73090
LCS 880-73083/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73083
LCS 880-73090/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73090
LCSD 880-73083/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73083
LCSD 880-73090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73090
880-39246-A-41-E MS	Matrix Spike	Total/NA	Solid	8015B NM	73083
880-39246-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73083
890-6152-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	73090
890-6152-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73090

Analysis Batch: 73409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-1	BH-1 (0-1')	Total/NA	Solid	8015B NM	73294
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73294
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73294
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73294
880-39343-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73294
880-39343-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73294

Analysis Batch: 73501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-1	BH-1 (0-1')	Total/NA	Solid	8015 NM	
880-39336-2	BH-1 (2')	Total/NA	Solid	8015 NM	
880-39336-3	BH-1 (3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-1	BH-1 (0-1')	Soluble	Solid	DI Leach	
880-39336-2	BH-1 (2')	Soluble	Solid	DI Leach	
880-39336-3	BH-1 (3')	Soluble	Solid	DI Leach	
MB 880-73116/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73116/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73116/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39331-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39331-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

HPLC/IC

Analysis Batch: 73199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39336-1	BH-1 (0-1')	Soluble	Solid	300.0	73116
880-39336-2	BH-1 (2')	Soluble	Solid	300.0	73116
880-39336-3	BH-1 (3')	Soluble	Solid	300.0	73116
MB 880-73116/1-A	Method Blank	Soluble	Solid	300.0	73116
LCS 880-73116/2-A	Lab Control Sample	Soluble	Solid	300.0	73116
LCSD 880-73116/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73116
880-39331-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	73116
880-39331-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73116

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

Client Sample ID: BH-1 (0-1')

Lab Sample ID: 880-39336-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73277	02/15/24 15:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73429	02/20/24 07:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73680	02/20/24 07:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			73501	02/18/24 14:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 14:57	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73116	02/14/24 09:58	SMC	EET MID
Soluble	Analysis	300.0		1			73199	02/15/24 14:12	SMC	EET MID

Client Sample ID: BH-1 (2')

Lab Sample ID: 880-39336-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73277	02/15/24 15:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73429	02/20/24 07:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73680	02/20/24 07:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			73501	02/17/24 18:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73083	02/14/24 15:40	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 18:34	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73116	02/14/24 09:58	SMC	EET MID
Soluble	Analysis	300.0		1			73199	02/15/24 14:19	SMC	EET MID

Client Sample ID: BH-1 (3')

Lab Sample ID: 880-39336-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73277	02/15/24 15:04	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73429	02/20/24 07:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73680	02/20/24 07:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			73501	02/18/24 04:27	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73090	02/14/24 12:09	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/18/24 04:27	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73116	02/14/24 09:58	SMC	EET MID
Soluble	Analysis	300.0		1			73199	02/15/24 14:26	SMC	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: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39336-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39336-1	BH-1 (0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39336-2	BH-1 (2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39336-3	BH-1 (3')	Solid	02/12/24 00:00	02/13/24 16:03

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C a O S I

2/20/2024

Page 1 of

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone		Email	icastro@marathonoil com

Work Order Comments

Program UST/PST ☐ PRP ☐ rownfields ☐ RC ☐ perfund ☐

State of Project:

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

Deliverables EDD ☐ ADaPT ☐ Other

Project Name	Nighthawk State Com #003H	Turn Around	Pres. Code
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT			
Temp Blank.	Yes No	Wet Ice	Yes No
Received Intact:	Yes No	Thermometer ID	IR5
Cooler Custody Seals	Yes No N/A	Correction Factor	-1.0
Sample Custody Seals	Yes No N/A	Temperature Reading	2.6
Total Containers		Corrected Temperature.	2.5

ANALYSIS REQUEST

Parameters: BTEX 8021B; TPH 8015M (GRO + DRO + MRO); Chloride 300 0; Hold

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-1 (0-1')	2/12/2024		X		G	1	X	X	X	
BH-1 (2')	2/12/2024		X		G	1	X	X	X	
BH-1 (3')	2/12/2024		X		G	1	X	X	X	

Preservative Codes

None NO DI Water H_2O

Cool Cool MeOH Me

HCL HC HNO_3. HN

H_2S0_4. H_2 NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13 24
			4 03

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Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39336-1
SDG Number: Lea County,New Mexico

Login Number: 39336
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39339-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

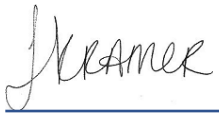
Eurofins Midland

Job Notes

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

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

Authorization



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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39339-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39339-1

Job ID: 880-39339-1 Eurofins Midland

Job Narrative
880-39339-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-2 (0-1') (880-39339-1), BH-2 (2') (880-39339-2) and BH-2 (3') (880-39339-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-73280/5-A) and (MB 880-73291/5-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.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73294 and analytical batch 880-73409 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH-2 (0-1') (880-39339-1), BH-2 (3') (880-39339-3), (880-39343-A-1-C), (880-39343-A-1-D MS) and (880-39343-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73294 and analytical batch 880-73409 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73117 and analytical batch 880-73231 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Client Sample ID: BH-2 (0-1')

Lab Sample ID: 880-39339-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/21/24 23:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/21/24 23:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/21/24 23:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:15	02/21/24 23:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/21/24 23:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:15	02/21/24 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*02/15/24 15:15*	*02/21/24 23:40*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/15/24 15:15*	*02/21/24 23:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/21/24 23:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/18/24 15:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 15:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 15:20	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 15:20*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/15/24 17:04*	*02/18/24 15:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**193**		4.96		mg/Kg			02/15/24 13:36	1

Client Sample ID: BH-2 (2')

Lab Sample ID: 880-39339-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 00:01	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 00:01	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 00:01	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:15	02/22/24 00:01	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 00:01	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:15	02/22/24 00:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*02/15/24 15:15*	*02/22/24 00:01*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/15/24 15:15*	*02/22/24 00:01*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Client Sample ID: BH-2 (2')

Lab Sample ID: 880-39339-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/22/24 00:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/18/24 15:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:04	02/18/24 15:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:04	02/18/24 15:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:04	02/18/24 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*02/15/24 17:04*	*02/18/24 15:43*	*1*
o-Terphenyl	*75*		*70 - 130*	*02/15/24 17:04*	*02/18/24 15:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**114**		5.04		mg/Kg			02/15/24 13:41	1

Client Sample ID: BH-2 (3')

Lab Sample ID: 880-39339-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 00:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 00:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 00:22	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/15/24 15:15	02/22/24 00:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 00:22	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/15/24 15:15	02/22/24 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/15/24 15:15*	*02/22/24 00:22*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/15/24 15:15*	*02/22/24 00:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/22/24 00:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/18/24 16:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 16:06	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 16:06	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Client Sample ID: BH-2 (3')
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39339-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*67*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 16:06*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/15/24 17:04*	*02/18/24 16:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85.2**		4.98		mg/Kg			02/15/24 13:46	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39339-1	BH-2 (0-1')	83	88
880-39339-1 MS	BH-2 (0-1')	99	98
880-39339-1 MSD	BH-2 (0-1')	96	117
880-39339-2	BH-2 (2')	93	94
880-39339-3	BH-2 (3')	91	92
LCS 880-73280/1-A	Lab Control Sample	104	120
LCSD 880-73280/2-A	Lab Control Sample Dup	98	121
MB 880-73280/5-A	Method Blank	65 S1-	107
MB 880-73291/5-A	Method Blank	65 S1-	104

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39339-1	BH-2 (0-1')	68 S1-	71
880-39339-2	BH-2 (2')	71	75
880-39339-3	BH-2 (3')	67 S1-	71
880-39343-A-1-D MS	Matrix Spike	68 S1-	65 S1-
880-39343-A-1-E MSD	Matrix Spike Duplicate	67 S1-	64 S1-
LCS 880-73294/2-A	Lab Control Sample	104	123
LCSD 880-73294/3-A	Lab Control Sample Dup	88	102
MB 880-73294/1-A - RA2	Method Blank	162 S1+	178 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73280/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/21/24 23:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/15/24 15:15*	*02/21/24 23:19*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:15*	*02/21/24 23:19*	*1*

Lab Sample ID: LCS 880-73280/1-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73280

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1189		mg/Kg		119	70 - 130		
Toluene			0.100	0.1009		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09553		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2244		mg/Kg		112	70 - 130		
o-Xylene			0.100	0.1094		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

Lab Sample ID: LCSD 880-73280/2-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73280

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1062		mg/Kg		106	70 - 130	11	35
Toluene			0.100	0.08697		mg/Kg		87	70 - 130	15	35
Ethylbenzene			0.100	0.07327		mg/Kg		73	70 - 130	26	35
m-Xylene & p-Xylene			0.200	0.1630		mg/Kg		81	70 - 130	32	35
o-Xylene			0.100	0.09654		mg/Kg		97	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*

Lab Sample ID: 880-39339-1 MS
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: BH-2 (0-1')
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.100	0.09547		mg/Kg		95	70 - 130		
Toluene	<0.00199	U	0.100	0.08946		mg/Kg		89	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39339-1 MS
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: BH-2 (0-1')
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.07867		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1779		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.100	0.08661		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-39339-1 MSD
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: BH-2 (0-1')
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.08939		mg/Kg		89	70 - 130	7	35
Toluene	<0.00199	U	0.101	0.08205		mg/Kg		82	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.101	0.08116		mg/Kg		81	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1649		mg/Kg		82	70 - 130	8	35
o-Xylene	<0.00199	U	0.101	0.08041		mg/Kg		80	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: MB 880-73291/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 16:02	02/21/24 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/15/24 16:02*	*02/21/24 11:26*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 16:02*	*02/21/24 11:26*	*1*

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

Lab Sample ID: LCS 880-73294/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	922.7		mg/Kg		92	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73294/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics (Over C10-C28)			1000	1070		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*123*		*70 - 130*

Lab Sample ID: LCSD 880-73294/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	962.2		mg/Kg		96	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	970.8		mg/Kg		97	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 880-39343-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	1010	642.8	F1	mg/Kg		60	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	660.0	F1	mg/Kg		63	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*68*	*S1-*	*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

Lab Sample ID: 880-39343-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

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	<50.2	U F1	1010	645.6	F1	mg/Kg		60	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	657.6	F1	mg/Kg		62	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*67*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73294/1-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
Oil Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane - RA2	*162*	*S1+*	*70 - 130*	*02/15/24 17:04*	*02/18/24 07:37*	*1*
o-Terphenyl - RA2	*178*	*S1+*	*70 - 130*	*02/15/24 17:04*	*02/18/24 07:37*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73117/1-A
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 11:31	1

Lab Sample ID: LCS 880-73117/2-A
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	234.1		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-73117/3-A
Matrix: Solid
Analysis Batch: 73231

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	235.8		mg/Kg		94	90 - 110	1	20

Lab Sample ID: 880-39338-A-5-B MS
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	345	F1	250	558.1	F1	mg/Kg		86	90 - 110

Lab Sample ID: 880-39338-A-5-C MSD
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	345	F1	250	559.9	F1	mg/Kg		86	90 - 110	0	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39339-1	BH-2 (0-1')	Total/NA	Solid	5035	
880-39339-2	BH-2 (2')	Total/NA	Solid	5035	
880-39339-3	BH-2 (3')	Total/NA	Solid	5035	
MB 880-73280/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73280/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73280/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39339-1 MS	BH-2 (0-1')	Total/NA	Solid	5035	
880-39339-1 MSD	BH-2 (0-1')	Total/NA	Solid	5035	

Prep Batch: 73291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73291/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39339-1	BH-2 (0-1')	Total/NA	Solid	8021B	73280
880-39339-2	BH-2 (2')	Total/NA	Solid	8021B	73280
880-39339-3	BH-2 (3')	Total/NA	Solid	8021B	73280
MB 880-73280/5-A	Method Blank	Total/NA	Solid	8021B	73280
MB 880-73291/5-A	Method Blank	Total/NA	Solid	8021B	73291
LCS 880-73280/1-A	Lab Control Sample	Total/NA	Solid	8021B	73280
LCSD 880-73280/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73280
880-39339-1 MS	BH-2 (0-1')	Total/NA	Solid	8021B	73280
880-39339-1 MSD	BH-2 (0-1')	Total/NA	Solid	8021B	73280

Analysis Batch: 73852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39339-1	BH-2 (0-1')	Total/NA	Solid	Total BTEX	
880-39339-2	BH-2 (2')	Total/NA	Solid	Total BTEX	
880-39339-3	BH-2 (3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39339-1	BH-2 (0-1')	Total/NA	Solid	8015NM Prep	
880-39339-2	BH-2 (2')	Total/NA	Solid	8015NM Prep	
880-39339-3	BH-2 (3')	Total/NA	Solid	8015NM Prep	
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39343-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39343-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39339-1	BH-2 (0-1')	Total/NA	Solid	8015B NM	73294
880-39339-2	BH-2 (2')	Total/NA	Solid	8015B NM	73294
880-39339-3	BH-2 (3')	Total/NA	Solid	8015B NM	73294
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73294
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73294

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

GC Semi VOA (Continued)

Analysis Batch: 73409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73294
880-39343-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73294
880-39343-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73294

Analysis Batch: 73502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39339-1	BH-2 (0-1')	Total/NA	Solid	8015 NM	
880-39339-2	BH-2 (2')	Total/NA	Solid	8015 NM	
880-39339-3	BH-2 (3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39339-1	BH-2 (0-1')	Soluble	Solid	DI Leach	
880-39339-2	BH-2 (2')	Soluble	Solid	DI Leach	
880-39339-3	BH-2 (3')	Soluble	Solid	DI Leach	
MB 880-73117/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73117/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73117/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39338-A-5-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39338-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39339-1	BH-2 (0-1')	Soluble	Solid	300.0	73117
880-39339-2	BH-2 (2')	Soluble	Solid	300.0	73117
880-39339-3	BH-2 (3')	Soluble	Solid	300.0	73117
MB 880-73117/1-A	Method Blank	Soluble	Solid	300.0	73117
LCS 880-73117/2-A	Lab Control Sample	Soluble	Solid	300.0	73117
LCSD 880-73117/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73117
880-39338-A-5-B MS	Matrix Spike	Soluble	Solid	300.0	73117
880-39338-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73117

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Client Sample ID: BH-2 (0-1')

Lab Sample ID: 880-39339-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/21/24 23:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73852	02/21/24 23:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			73502	02/18/24 15:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 15:20	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:36	SMC	EET MID

Client Sample ID: BH-2 (2')

Lab Sample ID: 880-39339-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 00:01	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73852	02/22/24 00:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			73502	02/18/24 15:43	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 15:43	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:41	SMC	EET MID

Client Sample ID: BH-2 (3')

Lab Sample ID: 880-39339-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 00:22	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73852	02/22/24 00:22	SM	EET MID
Total/NA	Analysis	8015 NM		1			73502	02/18/24 16:06	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 16:06	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:46	SMC	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: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39339-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39339-1	BH-2 (0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39339-2	BH-2 (2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39339-3	BH-2 (3')	Solid	02/12/24 00:00	02/13/24 16:03

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880-39339 Chain of Custody

2/22/2024

Page ___1___ of ___1___

Project Manager	Clinton Merritt	Bill to. (if different)	Isaac Castro
Company Name.	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City State ZIP	Midland TX 79701	City, State ZIP	Houston, TX 77024
Phone		Email	icastro@marathonoil com

Work Order Comments

Program. UST/PST ☐ PRP ☐ rownfields ☐ RC ☐ perfund ☐

State of Project:

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

Deliverables EDD ☐ ADaPT ☐ Other

Project Name	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT			
Temp Blank	Yes No	Wet Ice	Yes No
Received Intact:	Yes No	Thermometer ID	IR5
Cooler Custody Seals	Yes No N/A	Correction Factor	-1.0
Sample Custody Seals	Yes No N/A	Temperature Reading	2.4
Total Containers		Corrected Temperature	2.5

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-2 (0-1')	2/12/2024		X		G	1		X	X	X	
BH-2 (2')	2/12/2024		X		G	1		X	X	X	
BH-2 (3')	2/12/2024		X		G	1		X	X	X	

Preservative Codes

None NO DI Water H_2O

Cool Cool MeOH Me

HCL HC HNO_3 HN

H_2S0_4 H_2 NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ NaSO

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13 24
			4.03

Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39339-1
SDG Number: Lea County,New Mexico

Login Number: 39339
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39340-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

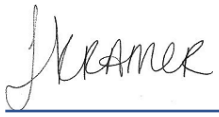
Eurofins Midland

Job Notes

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

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

Authorization



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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39340-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39340-1

Job ID: 880-39340-1 Eurofins Midland

Job Narrative
880-39340-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-3 (0-1') (880-39340-1), BH-3 (2') (880-39340-2) and BH-3 (3') (880-39340-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-73280/5-A) and (MB 880-73291/5-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.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73294 and analytical batch 880-73409 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH-3 (0-1') (880-39340-1), (880-39343-A-1-C), (880-39343-A-1-D MS) and (880-39343-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73294 and analytical batch 880-73409 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73117 and analytical batch 880-73231 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Client Sample ID: BH-3 (0-1')

Lab Sample ID: 880-39340-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:15	02/22/24 00:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:15	02/22/24 00:43	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:15	02/22/24 00:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:15	02/22/24 00:43	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:15	02/22/24 00:43	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:15	02/22/24 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*02/15/24 15:15*	*02/22/24 00:43*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/15/24 15:15*	*02/22/24 00:43*	*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			02/22/24 00:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/18/24 16:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:04	02/18/24 16:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:04	02/18/24 16:29	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:04	02/18/24 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 16:29*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/15/24 17:04*	*02/18/24 16:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.3**		5.00		mg/Kg			02/15/24 13:50	1

Client Sample ID: BH-3 (2')

Lab Sample ID: 880-39340-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 01:03	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 01:03	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 01:03	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:15	02/22/24 01:03	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 01:03	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:15	02/22/24 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*02/15/24 15:15*	*02/22/24 01:03*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/15/24 15:15*	*02/22/24 01:03*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Client Sample ID: BH-3 (2')

Lab Sample ID: 880-39340-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/22/24 01:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/18/24 16:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/15/24 17:04	02/18/24 16:53	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/15/24 17:04	02/18/24 16:53	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/15/24 17:04	02/18/24 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*02/15/24 17:04*	*02/18/24 16:53*	*1*
o-Terphenyl	*88*		*70 - 130*	*02/15/24 17:04*	*02/18/24 16:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	114		5.01		mg/Kg			02/15/24 16:24	1

Client Sample ID: BH-3 (3')

Lab Sample ID: 880-39340-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 01:24	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 01:24	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 01:24	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		02/15/24 15:15	02/22/24 01:24	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 01:24	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		02/15/24 15:15	02/22/24 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*02/15/24 15:15*	*02/22/24 01:24*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*02/15/24 15:15*	*02/22/24 01:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/22/24 01:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/18/24 17:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:04	02/18/24 17:16	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/15/24 17:04	02/18/24 17:16	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Client Sample ID: BH-3 (3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39340-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:04	02/18/24 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*02/15/24 17:04*	*02/18/24 17:16*	*1*
o-Terphenyl	*76*		*70 - 130*	*02/15/24 17:04*	*02/18/24 17:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3870**		24.9		mg/Kg			02/15/24 16:37	5

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39339-A-1-B MS	Matrix Spike	99	98
880-39339-A-1-C MSD	Matrix Spike Duplicate	96	117
880-39340-1	BH-3 (0-1')	85	83
880-39340-2	BH-3 (2')	81	100
880-39340-3	BH-3 (3')	85	84
LCS 880-73280/1-A	Lab Control Sample	104	120
LCSD 880-73280/2-A	Lab Control Sample Dup	98	121
MB 880-73280/5-A	Method Blank	65 S1-	107
MB 880-73291/5-A	Method Blank	65 S1-	104

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39340-1	BH-3 (0-1')	68 S1-	70
880-39340-2	BH-3 (2')	82	88
880-39340-3	BH-3 (3')	73	76
880-39343-A-1-D MS	Matrix Spike	68 S1-	65 S1-
880-39343-A-1-E MSD	Matrix Spike Duplicate	67 S1-	64 S1-
LCS 880-73294/2-A	Lab Control Sample	104	123
LCSD 880-73294/3-A	Lab Control Sample Dup	88	102
MB 880-73294/1-A - RA2	Method Blank	162 S1+	178 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73280/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/21/24 23:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/15/24 15:15*	*02/21/24 23:19*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:15*	*02/21/24 23:19*	*1*

Lab Sample ID: LCS 880-73280/1-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73280

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1189		mg/Kg		119	70 - 130		
Toluene			0.100	0.1009		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09553		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2244		mg/Kg		112	70 - 130		
o-Xylene			0.100	0.1094		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

Lab Sample ID: LCSD 880-73280/2-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73280

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1062		mg/Kg		106	70 - 130	11	35
Toluene			0.100	0.08697		mg/Kg		87	70 - 130	15	35
Ethylbenzene			0.100	0.07327		mg/Kg		73	70 - 130	26	35
m-Xylene & p-Xylene			0.200	0.1630		mg/Kg		81	70 - 130	32	35
o-Xylene			0.100	0.09654		mg/Kg		97	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*

Lab Sample ID: 880-39339-A-1-B MS
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.100	0.09547		mg/Kg		95	70 - 130		
Toluene	<0.00199	U	0.100	0.08946		mg/Kg		89	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39339-A-1-B MS
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.07867		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1779		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.100	0.08661		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-39339-A-1-C MSD
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.08939		mg/Kg		89	70 - 130	7	35
Toluene	<0.00199	U	0.101	0.08205		mg/Kg		82	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.101	0.08116		mg/Kg		81	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1649		mg/Kg		82	70 - 130	8	35
o-Xylene	<0.00199	U	0.101	0.08041		mg/Kg		80	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: MB 880-73291/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 16:02	02/21/24 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/15/24 16:02*	*02/21/24 11:26*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 16:02*	*02/21/24 11:26*	*1*

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

Lab Sample ID: LCS 880-73294/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	922.7		mg/Kg		92	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73294/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73294

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics (Over C10-C28)			1000	1070		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*123*		*70 - 130*

Lab Sample ID: LCSD 880-73294/3-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73294

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	962.2		mg/Kg		96	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	970.8		mg/Kg		97	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 880-39343-A-1-D MS
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73294

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	1010	642.8	F1	mg/Kg		60	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	660.0	F1	mg/Kg		63	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*68*	*S1-*	*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

Lab Sample ID: 880-39343-A-1-E MSD
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73294

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	<50.2	U F1	1010	645.6	F1	mg/Kg		60	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	657.6	F1	mg/Kg		62	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*67*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73294/1-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
Oil Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane - RA2	*162*	*S1+*	*70 - 130*	*02/15/24 17:04*	*02/18/24 07:37*	*1*
o-Terphenyl - RA2	*178*	*S1+*	*70 - 130*	*02/15/24 17:04*	*02/18/24 07:37*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73117/1-A
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 11:31	1

Lab Sample ID: LCS 880-73117/2-A
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-73117/3-A
Matrix: Solid
Analysis Batch: 73231

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	235.8		mg/Kg		94	90 - 110	1	20

Lab Sample ID: 880-39338-A-5-B MS
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	345	F1	250	558.1	F1	mg/Kg		86	90 - 110		

Lab Sample ID: 880-39338-A-5-C MSD
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	345	F1	250	559.9	F1	mg/Kg		86	90 - 110	0	20

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-73132/1-A
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 16:10	1

Lab Sample ID: LCS 880-73132/2-A
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	235.2		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-73132/3-A
Matrix: Solid
Analysis Batch: 73257

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	236.4		mg/Kg		95	90 - 110	1	20

Lab Sample ID: 880-39340-2 MS
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: BH-3 (2')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	114		251	370.7		mg/Kg		103	90 - 110		

Lab Sample ID: 880-39340-2 MSD
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: BH-3 (2')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	114		251	372.2		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-1	BH-3 (0-1')	Total/NA	Solid	5035	
880-39340-2	BH-3 (2')	Total/NA	Solid	5035	
880-39340-3	BH-3 (3')	Total/NA	Solid	5035	
MB 880-73280/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73280/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73280/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39339-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-39339-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 73291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73291/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-1	BH-3 (0-1')	Total/NA	Solid	8021B	73280
880-39340-2	BH-3 (2')	Total/NA	Solid	8021B	73280
880-39340-3	BH-3 (3')	Total/NA	Solid	8021B	73280
MB 880-73280/5-A	Method Blank	Total/NA	Solid	8021B	73280
MB 880-73291/5-A	Method Blank	Total/NA	Solid	8021B	73291
LCS 880-73280/1-A	Lab Control Sample	Total/NA	Solid	8021B	73280
LCSD 880-73280/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73280
880-39339-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	73280
880-39339-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73280

Analysis Batch: 73853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-1	BH-3 (0-1')	Total/NA	Solid	Total BTEX	
880-39340-2	BH-3 (2')	Total/NA	Solid	Total BTEX	
880-39340-3	BH-3 (3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-1	BH-3 (0-1')	Total/NA	Solid	8015NM Prep	
880-39340-2	BH-3 (2')	Total/NA	Solid	8015NM Prep	
880-39340-3	BH-3 (3')	Total/NA	Solid	8015NM Prep	
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39343-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39343-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-1	BH-3 (0-1')	Total/NA	Solid	8015B NM	73294
880-39340-2	BH-3 (2')	Total/NA	Solid	8015B NM	73294
880-39340-3	BH-3 (3')	Total/NA	Solid	8015B NM	73294
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73294
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73294

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

GC Semi VOA (Continued)

Analysis Batch: 73409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73294
880-39343-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73294
880-39343-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73294

Analysis Batch: 73503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-1	BH-3 (0-1')	Total/NA	Solid	8015 NM	
880-39340-2	BH-3 (2')	Total/NA	Solid	8015 NM	
880-39340-3	BH-3 (3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-1	BH-3 (0-1')	Soluble	Solid	DI Leach	
MB 880-73117/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73117/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73117/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39338-A-5-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39338-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 73132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-2	BH-3 (2')	Soluble	Solid	DI Leach	
880-39340-3	BH-3 (3')	Soluble	Solid	DI Leach	
MB 880-73132/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73132/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73132/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39340-2 MS	BH-3 (2')	Soluble	Solid	DI Leach	
880-39340-2 MSD	BH-3 (2')	Soluble	Solid	DI Leach	

Analysis Batch: 73231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-1	BH-3 (0-1')	Soluble	Solid	300.0	73117
MB 880-73117/1-A	Method Blank	Soluble	Solid	300.0	73117
LCS 880-73117/2-A	Lab Control Sample	Soluble	Solid	300.0	73117
LCSD 880-73117/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73117
880-39338-A-5-B MS	Matrix Spike	Soluble	Solid	300.0	73117
880-39338-A-5-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73117

Analysis Batch: 73257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39340-2	BH-3 (2')	Soluble	Solid	300.0	73132
880-39340-3	BH-3 (3')	Soluble	Solid	300.0	73132
MB 880-73132/1-A	Method Blank	Soluble	Solid	300.0	73132
LCS 880-73132/2-A	Lab Control Sample	Soluble	Solid	300.0	73132
LCSD 880-73132/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73132
880-39340-2 MS	BH-3 (2')	Soluble	Solid	300.0	73132
880-39340-2 MSD	BH-3 (2')	Soluble	Solid	300.0	73132

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Client Sample ID: BH-3 (0-1')

Lab Sample ID: 880-39340-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 00:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73853	02/22/24 00:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			73503	02/18/24 16:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 16:29	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:50	SMC	EET MID

Client Sample ID: BH-3 (2')

Lab Sample ID: 880-39340-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 01:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73853	02/22/24 01:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			73503	02/18/24 16:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 16:53	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 16:24	SMC	EET MID

Client Sample ID: BH-3 (3')

Lab Sample ID: 880-39340-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 01:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73853	02/22/24 01:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			73503	02/18/24 17:16	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 17:16	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	73257	02/15/24 16:37	SMC	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: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39340-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39340-1	BH-3 (0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39340-2	BH-3 (2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39340-3	BH-3 (3')	Solid	02/12/24 00:00	02/13/24 16:03

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Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

2/22/2024

880-39340 Chain of Custody

Page 1 of

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone	Email	icastro@marathonoil 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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	Yes No	
Received Intact:	(Yes) No	Thermometer ID	IR 8	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1.0	
Sample Custody Seals.	Yes No (N/A)	Temperature Reading	2.6	
Total Containers		Corrected Temperature	2.5	

Preservative Codes

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

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold	Sample Comments
BH-3 (0-1')	2/12/2024		X		G	1		X	X	X		
BH-3 (2')	2/12/2024		X		G	1		X	X	X		
BH-3 (3')	2/12/2024		X		G	1		X	X	X		

Comments Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources.com, Clint Merritt MerrittC@carmonaresources.com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13-24
			4:03

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39340-1
SDG Number: Lea County,New Mexico

Login Number: 39340
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39342-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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Eurofins Midland

Job Notes

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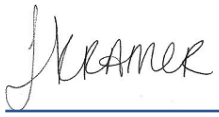
Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39342-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Nighthawk State Com #003H

Job ID: 880-39342-1

Job ID: 880-39342-1 Eurofins Midland

Job Narrative
880-39342-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-4 (0-1') (880-39342-1), BH-4(2') (880-39342-2) and BH-4(3') (880-39342-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-73280/5-A) and (MB 880-73291/5-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.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73294 and analytical batch 880-73409 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH-4 (0-1') (880-39342-1), (880-39343-A-1-C), (880-39343-A-1-D MS) and (880-39343-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73294 and analytical batch 880-73409 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Client Sample ID: BH-4 (0-1')

Lab Sample ID: 880-39342-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 01:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 01:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 01:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/15/24 15:15	02/22/24 01:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 01:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/15/24 15:15	02/22/24 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*02/15/24 15:15*	*02/22/24 01:45*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/15/24 15:15*	*02/22/24 01:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/22/24 01:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.3**		50.1		mg/Kg			02/18/24 17:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:04	02/18/24 17:40	1
Diesel Range Organics (Over C10-C28)	**70.3**		50.1		mg/Kg		02/15/24 17:04	02/18/24 17:40	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:04	02/18/24 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 17:40*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/15/24 17:04*	*02/18/24 17:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1840**		24.9		mg/Kg			02/15/24 17:47	5

Client Sample ID: BH-4(2')

Lab Sample ID: 880-39342-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 02:06	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 02:06	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 02:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:15	02/22/24 02:06	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 02:06	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:15	02/22/24 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*02/15/24 15:15*	*02/22/24 02:06*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/15/24 15:15*	*02/22/24 02:06*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Client Sample ID: BH-4(2')

Lab Sample ID: 880-39342-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 02:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1190**		50.5		mg/Kg			02/18/24 18:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:04	02/18/24 18:04	1
Diesel Range Organics (Over C10-C28)	**1190**		50.5		mg/Kg		02/15/24 17:04	02/18/24 18:04	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:04	02/18/24 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/15/24 17:04*	*02/18/24 18:04*	*1*
o-Terphenyl	*73*		*70 - 130*	*02/15/24 17:04*	*02/18/24 18:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**262**		5.01		mg/Kg			02/15/24 18:01	1

Client Sample ID: BH-4(3')

Lab Sample ID: 880-39342-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 02:26	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 02:26	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 02:26	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:15	02/22/24 02:26	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:15	02/22/24 02:26	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:15	02/22/24 02:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*02/15/24 15:15*	*02/22/24 02:26*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/15/24 15:15*	*02/22/24 02:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/22/24 02:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/18/24 18:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 18:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 18:27	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Client Sample ID: BH-4(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39342-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*02/15/24 17:04*	*02/18/24 18:27*	*1*
o-Terphenyl	*81*		*70 - 130*	*02/15/24 17:04*	*02/18/24 18:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**204**		5.02		mg/Kg			02/15/24 18:06	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39339-A-1-B MS	Matrix Spike	99	98
880-39339-A-1-C MSD	Matrix Spike Duplicate	96	117
880-39342-1	BH-4 (0-1')	81	88
880-39342-2	BH-4(2')	83	109
880-39342-3	BH-4(3')	81	94
LCS 880-73280/1-A	Lab Control Sample	104	120
LCSD 880-73280/2-A	Lab Control Sample Dup	98	121
MB 880-73280/5-A	Method Blank	65 S1-	107
MB 880-73291/5-A	Method Blank	65 S1-	104

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39342-1	BH-4 (0-1')	69 S1-	74
880-39342-2	BH-4(2')	70	73
880-39342-3	BH-4(3')	79	81
880-39343-A-1-D MS	Matrix Spike	68 S1-	65 S1-
880-39343-A-1-E MSD	Matrix Spike Duplicate	67 S1-	64 S1-
LCS 880-73294/2-A	Lab Control Sample	104	123
LCSD 880-73294/3-A	Lab Control Sample Dup	88	102
MB 880-73294/1-A - RA2	Method Blank	162 S1+	178 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73280/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/21/24 23:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/15/24 15:15*	*02/21/24 23:19*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:15*	*02/21/24 23:19*	*1*

Lab Sample ID: LCS 880-73280/1-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1189		mg/Kg		119	70 - 130
Toluene	0.100	0.1009		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.09553		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.2244		mg/Kg		112	70 - 130
o-Xylene	0.100	0.1094		mg/Kg		109	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

Lab Sample ID: LCSD 880-73280/2-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1062		mg/Kg		106	70 - 130	11	35
Toluene	0.100	0.08697		mg/Kg		87	70 - 130	15	35
Ethylbenzene	0.100	0.07327		mg/Kg		73	70 - 130	26	35
m-Xylene & p-Xylene	0.200	0.1630		mg/Kg		81	70 - 130	32	35
o-Xylene	0.100	0.09654		mg/Kg		97	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*

Lab Sample ID: 880-39339-A-1-B MS
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.100	0.09547		mg/Kg		95	70 - 130
Toluene	<0.00199	U	0.100	0.08946		mg/Kg		89	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39339-A-1-B MS
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.07867		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1779		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.100	0.08661		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-39339-A-1-C MSD
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.08939		mg/Kg		89	70 - 130	7	35
Toluene	<0.00199	U	0.101	0.08205		mg/Kg		82	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.101	0.08116		mg/Kg		81	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1649		mg/Kg		82	70 - 130	8	35
o-Xylene	<0.00199	U	0.101	0.08041		mg/Kg		80	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: MB 880-73291/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 16:02	02/21/24 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/15/24 16:02*	*02/21/24 11:26*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 16:02*	*02/21/24 11:26*	*1*

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

Lab Sample ID: LCS 880-73294/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	922.7		mg/Kg		92	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73294/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73294

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics (Over C10-C28)			1000	1070		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*123*		*70 - 130*

Lab Sample ID: LCSD 880-73294/3-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73294

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	962.2		mg/Kg		96	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	970.8		mg/Kg		97	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 880-39343-A-1-D MS
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73294

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	1010	642.8	F1	mg/Kg		60	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	660.0	F1	mg/Kg		63	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*68*	*S1-*	*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

Lab Sample ID: 880-39343-A-1-E MSD
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73294

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	<50.2	U F1	1010	645.6	F1	mg/Kg		60	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	657.6	F1	mg/Kg		62	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*67*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73294/1-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73294

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
Oil Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane - RA2	*162*	*S1+*	*70 - 130*	*02/15/24 17:04*	*02/18/24 07:37*	*1*
o-Terphenyl - RA2	*178*	*S1+*	*70 - 130*	*02/15/24 17:04*	*02/18/24 07:37*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73132/1-A
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 16:10	1

Lab Sample ID: LCS 880-73132/2-A
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	235.2		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-73132/3-A
Matrix: Solid
Analysis Batch: 73257

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	236.4		mg/Kg		95	90 - 110	1	20

Lab Sample ID: 880-39341-A-9-B MS
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	626		251	857.4		mg/Kg		92	90 - 110

Lab Sample ID: 880-39341-A-9-C MSD
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	626		251	866.1		mg/Kg		96	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39342-1	BH-4 (0-1')	Total/NA	Solid	5035	
880-39342-2	BH-4(2')	Total/NA	Solid	5035	
880-39342-3	BH-4(3')	Total/NA	Solid	5035	
MB 880-73280/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73280/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73280/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39339-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-39339-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 73291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73291/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39342-1	BH-4 (0-1')	Total/NA	Solid	8021B	73280
880-39342-2	BH-4(2')	Total/NA	Solid	8021B	73280
880-39342-3	BH-4(3')	Total/NA	Solid	8021B	73280
MB 880-73280/5-A	Method Blank	Total/NA	Solid	8021B	73280
MB 880-73291/5-A	Method Blank	Total/NA	Solid	8021B	73291
LCS 880-73280/1-A	Lab Control Sample	Total/NA	Solid	8021B	73280
LCSD 880-73280/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73280
880-39339-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	73280
880-39339-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73280

Analysis Batch: 73854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39342-1	BH-4 (0-1')	Total/NA	Solid	Total BTEX	
880-39342-2	BH-4(2')	Total/NA	Solid	Total BTEX	
880-39342-3	BH-4(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39342-1	BH-4 (0-1')	Total/NA	Solid	8015NM Prep	
880-39342-2	BH-4(2')	Total/NA	Solid	8015NM Prep	
880-39342-3	BH-4(3')	Total/NA	Solid	8015NM Prep	
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39343-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39343-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39342-1	BH-4 (0-1')	Total/NA	Solid	8015B NM	73294
880-39342-2	BH-4(2')	Total/NA	Solid	8015B NM	73294
880-39342-3	BH-4(3')	Total/NA	Solid	8015B NM	73294
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73294
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73294

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

GC Semi VOA (Continued)

Analysis Batch: 73409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73294
880-39343-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73294
880-39343-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73294

Analysis Batch: 73504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39342-1	BH-4 (0-1')	Total/NA	Solid	8015 NM	
880-39342-2	BH-4(2')	Total/NA	Solid	8015 NM	
880-39342-3	BH-4(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39342-1	BH-4 (0-1')	Soluble	Solid	DI Leach	
880-39342-2	BH-4(2')	Soluble	Solid	DI Leach	
880-39342-3	BH-4(3')	Soluble	Solid	DI Leach	
MB 880-73132/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73132/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73132/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39341-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39341-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39342-1	BH-4 (0-1')	Soluble	Solid	300.0	73132
880-39342-2	BH-4(2')	Soluble	Solid	300.0	73132
880-39342-3	BH-4(3')	Soluble	Solid	300.0	73132
MB 880-73132/1-A	Method Blank	Soluble	Solid	300.0	73132
LCS 880-73132/2-A	Lab Control Sample	Soluble	Solid	300.0	73132
LCSD 880-73132/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73132
880-39341-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	73132
880-39341-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73132

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Client Sample ID: BH-4 (0-1')

Lab Sample ID: 880-39342-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 01:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73854	02/22/24 01:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			73504	02/18/24 17:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 17:40	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	73257	02/15/24 17:47	SMC	EET MID

Client Sample ID: BH-4(2')

Lab Sample ID: 880-39342-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 02:06	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73854	02/22/24 02:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			73504	02/18/24 18:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 18:04	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 18:01	SMC	EET MID

Client Sample ID: BH-4(3')

Lab Sample ID: 880-39342-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 02:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73854	02/22/24 02:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			73504	02/18/24 18:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 18:27	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 18:06	SMC	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: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39342-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39342-1	BH-4 (0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39342-2	BH-4(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39342-3	BH-4(3')	Solid	02/12/24 00:00	02/13/24 16:03

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Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

2/22/2024

W

880-39342 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City State ZIP	Houston TX 77024
Phone	Email	icastro@marathonoil com	

Work Order Comments

Program UST/PST ☐ PRP ☐ rownfields ☐ RC ☐ perfund ☐

State of Project:

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

Deliverables EDD ☐ ADaPT ☐ Other

Project Name	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	Yes No	
Received Intact:	(Yes) No	Thermometer ID	IR5	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1.0	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6	
Total Containers		Corrected Temperature	2.5	

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-4 (0-1')	2/12/2024		X		G	1		X	X	X	
BH-4 (2')	2/12/2024		X		G	1		X	X	X	
BH-4 (3')	2/12/2024		X		G	1		X	X	X	

Preservative Codes

None NO DI Water H_2O

Cool Cool MeOH Me

HCL HC HNO_3 HN

H_2S0_4 H_2 NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		2-13-24
			4:00

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39342-1
SDG Number: Lea County,New Mexico

Login Number: 39342
List Number: 1
Creator: Wheeler, Jazmine

List Source: Eurofins Midland

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

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ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39344-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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Eurofins Midland

Job Notes

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

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

Authorization

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Authorized for release by
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Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39344-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
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: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39344-1

Job ID: 880-39344-1 Eurofins Midland

Job Narrative
880-39344-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-5(0-1') (880-39344-1), BH-5(2') (880-39344-2) and BH-5(3') (880-39344-3).

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73799 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-73799/2).

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: BH-5(2') (880-39344-2), (880-39344-A-1-D MS) and (880-39344-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-73296 and analytical batch 880-73424 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73296 and analytical batch 880-73424 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike duplicate (MSD) recoveries for preparation batch 880-73141 and analytical batch 880-73262 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Client Sample ID: BH-5(0-1')

Lab Sample ID: 880-39344-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/22/24 00:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/22/24 00:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/22/24 00:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:33	02/22/24 00:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:33	02/22/24 00:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:33	02/22/24 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/15/24 15:33*	*02/22/24 00:21*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/15/24 15:33*	*02/22/24 00:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 00:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/19/24 10:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	49.7		mg/Kg		02/15/24 17:08	02/19/24 10:36	1
Diesel Range Organics (Over C10-C28)	<49.7	U F1	49.7		mg/Kg		02/15/24 17:08	02/19/24 10:36	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/15/24 17:08	02/19/24 10:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*02/15/24 17:08*	*02/19/24 10:36*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/15/24 17:08*	*02/19/24 10:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**339**		4.96		mg/Kg			02/15/24 17:17	1

Client Sample ID: BH-5(2')

Lab Sample ID: 880-39344-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/22/24 00:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/22/24 00:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/22/24 00:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/22/24 00:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/22/24 00:42	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/22/24 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/15/24 15:33*	*02/22/24 00:42*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/15/24 15:33*	*02/22/24 00:42*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Client Sample ID: BH-5(2')

Lab Sample ID: 880-39344-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/22/24 00:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/19/24 11:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:08	02/19/24 11:47	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:08	02/19/24 11:47	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:08	02/19/24 11:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*67*	*S1-*	*70 - 130*	*02/15/24 17:08*	*02/19/24 11:47*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/15/24 17:08*	*02/19/24 11:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**243**		4.97		mg/Kg			02/15/24 17:24	1

Client Sample ID: BH-5(3')

Lab Sample ID: 880-39344-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/22/24 01:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/22/24 01:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/22/24 01:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/22/24 01:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/22/24 01:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/22/24 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/15/24 15:33*	*02/22/24 01:03*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:33*	*02/22/24 01:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/22/24 01:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/19/24 12:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:08	02/19/24 12:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:08	02/19/24 12:11	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Client Sample ID: BH-5(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39344-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:08	02/19/24 12:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:08*	*02/19/24 12:11*	*1*
o-Terphenyl	*73*		*70 - 130*	*02/15/24 17:08*	*02/19/24 12:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.7**		4.96		mg/Kg			02/15/24 17:31	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39344-1	BH-5(0-1')	99	105
880-39344-2	BH-5(2')	105	105
880-39344-3	BH-5(3')	103	106
890-6176-A-1-B MS	Matrix Spike	104	106
890-6176-A-1-C MSD	Matrix Spike Duplicate	97	106
LCS 880-73284/1-A	Lab Control Sample	96	108
LCSD 880-73284/2-A	Lab Control Sample Dup	93	104
MB 880-73284/5-A	Method Blank	74	101

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39344-1	BH-5(0-1')	78	80
880-39344-1 MS	BH-5(0-1')	71	68 S1-
880-39344-1 MSD	BH-5(0-1')	64 S1-	64 S1-
880-39344-2	BH-5(2')	67 S1-	70
880-39344-3	BH-5(3')	72	73
LCS 880-73296/2-A	Lab Control Sample	102	115
LCSD 880-73296/3-A	Lab Control Sample Dup	92	105
MB 880-73296/1-A - RA2	Method Blank	83	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73284/5-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73284

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/21/24 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*02/15/24 15:33*	*02/21/24 18:43*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/15/24 15:33*	*02/21/24 18:43*	*1*

Lab Sample ID: LCS 880-73284/1-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73284

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1305		mg/Kg		130	70 - 130		
Toluene			0.100	0.1001		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.09525		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1853		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09366		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-73284/2-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73284

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1169		mg/Kg		117	70 - 130	11	35
Toluene			0.100	0.09440		mg/Kg		94	70 - 130	6	35
Ethylbenzene			0.100	0.09104		mg/Kg		91	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1784		mg/Kg		89	70 - 130	4	35
o-Xylene			0.100	0.08973		mg/Kg		90	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-6176-A-1-B MS
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.100	0.1146		mg/Kg		114	70 - 130		
Toluene	<0.00199	U	0.100	0.08578		mg/Kg		86	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 890-6176-A-1-B MS
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.08293		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1602		mg/Kg		80	70 - 130
o-Xylene	<0.00199	U	0.100	0.08577		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-6176-A-1-C MSD
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1111		mg/Kg		110	70 - 130	3	35
Toluene	<0.00199	U	0.101	0.08237		mg/Kg		82	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.101	0.07895		mg/Kg		78	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1528		mg/Kg		76	70 - 130	5	35
o-Xylene	<0.00199	U	0.101	0.08147		mg/Kg		81	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: LCS 880-73296/2-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73296

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	968.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1037		mg/Kg		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: LCSD 880-73296/3-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73296

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1040		mg/Kg		104	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	1019		mg/Kg		102	70 - 130	2	20

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCSD 880-73296/3-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73296

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 880-39344-1 MS
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: BH-5(0-1')
Prep Type: Total/NA
Prep Batch: 73296

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	1000	904.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	694.5	F1	mg/Kg		67	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 880-39344-1 MSD
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: BH-5(0-1')
Prep Type: Total/NA
Prep Batch: 73296

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	<49.7	U F1 F2	1000	657.0	F1 F2	mg/Kg		61	70 - 130	32	20
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	645.1	F1	mg/Kg		62	70 - 130	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	64	S1-	70 - 130
o-Terphenyl	64	S1-	70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73296/1-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
OII Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane - RA2	83		70 - 130	02/15/24 17:08	02/19/24 07:50	1
o-Terphenyl - RA2	87		70 - 130	02/15/24 17:08	02/19/24 07:50	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73141/1-A
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 15:55	1

Lab Sample ID: LCS 880-73141/2-A
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-73141/3-A
Matrix: Solid
Analysis Batch: 73262

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

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

Lab Sample ID: 880-39343-A-6-B MS
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	221	F1	250	444.3		mg/Kg		90	90 - 110		

Lab Sample ID: 880-39343-A-6-C MSD
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	221	F1	250	424.9	F1	mg/Kg		82	90 - 110	4	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39344-1	BH-5(0-1')	Total/NA	Solid	5035	
880-39344-2	BH-5(2')	Total/NA	Solid	5035	
880-39344-3	BH-5(3')	Total/NA	Solid	5035	
MB 880-73284/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73284/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73284/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6176-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-6176-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39344-1	BH-5(0-1')	Total/NA	Solid	8021B	73284
880-39344-2	BH-5(2')	Total/NA	Solid	8021B	73284
880-39344-3	BH-5(3')	Total/NA	Solid	8021B	73284
MB 880-73284/5-A	Method Blank	Total/NA	Solid	8021B	73284
LCS 880-73284/1-A	Lab Control Sample	Total/NA	Solid	8021B	73284
LCSD 880-73284/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73284
890-6176-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	73284
890-6176-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73284

Analysis Batch: 73845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39344-1	BH-5(0-1')	Total/NA	Solid	Total BTEX	
880-39344-2	BH-5(2')	Total/NA	Solid	Total BTEX	
880-39344-3	BH-5(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39344-1	BH-5(0-1')	Total/NA	Solid	8015NM Prep	
880-39344-2	BH-5(2')	Total/NA	Solid	8015NM Prep	
880-39344-3	BH-5(3')	Total/NA	Solid	8015NM Prep	
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39344-1 MS	BH-5(0-1')	Total/NA	Solid	8015NM Prep	
880-39344-1 MSD	BH-5(0-1')	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39344-1	BH-5(0-1')	Total/NA	Solid	8015B NM	73296
880-39344-2	BH-5(2')	Total/NA	Solid	8015B NM	73296
880-39344-3	BH-5(3')	Total/NA	Solid	8015B NM	73296
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73296
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73296
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73296
880-39344-1 MS	BH-5(0-1')	Total/NA	Solid	8015B NM	73296
880-39344-1 MSD	BH-5(0-1')	Total/NA	Solid	8015B NM	73296

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

GC Semi VOA

Analysis Batch: 73621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39344-1	BH-5(0-1')	Total/NA	Solid	8015 NM	
880-39344-2	BH-5(2')	Total/NA	Solid	8015 NM	
880-39344-3	BH-5(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39344-1	BH-5(0-1')	Soluble	Solid	DI Leach	
880-39344-2	BH-5(2')	Soluble	Solid	DI Leach	
880-39344-3	BH-5(3')	Soluble	Solid	DI Leach	
MB 880-73141/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73141/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73141/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39343-A-6-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39343-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39344-1	BH-5(0-1')	Soluble	Solid	300.0	73141
880-39344-2	BH-5(2')	Soluble	Solid	300.0	73141
880-39344-3	BH-5(3')	Soluble	Solid	300.0	73141
MB 880-73141/1-A	Method Blank	Soluble	Solid	300.0	73141
LCS 880-73141/2-A	Lab Control Sample	Soluble	Solid	300.0	73141
LCSD 880-73141/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73141
880-39343-A-6-B MS	Matrix Spike	Soluble	Solid	300.0	73141
880-39343-A-6-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73141

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Client Sample ID: BH-5(0-1')

Lab Sample ID: 880-39344-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/22/24 00:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73845	02/22/24 00:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			73621	02/19/24 10:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 10:36	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 17:17	SMC	EET MID

Client Sample ID: BH-5(2')

Lab Sample ID: 880-39344-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/22/24 00:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73845	02/22/24 00:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			73621	02/19/24 11:47	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 11:47	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 17:24	SMC	EET MID

Client Sample ID: BH-5(3')

Lab Sample ID: 880-39344-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/22/24 01:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73845	02/22/24 01:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			73621	02/19/24 12:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 12:11	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 17:31	SMC	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: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39344-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39344-1	BH-5(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39344-2	BH-5(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39344-3	BH-5(3')	Solid	02/12/24 00:00	02/13/24 16:03

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Received by OCD: 3/27/2024 4:56:13 PM

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2/22/2024

880-39344 Chain of Custody

Page ___ of ___

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone	Email	icastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	Yes No	
Received Intact:	(Yes) No	Thermometer ID	IR8	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1.0	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6	
Total Containers		Corrected Temperature	2.5	

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-5 (0-1')	2/12/2024		X		G	1	X	X	X	
BH-5 (2')	2/12/2024		X		G	1	X	X	X	
BH-5 (3')	2/12/2024		X		G	1	X	X	X	

Preservative Codes

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

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources.com, Clint Merritt MerrittC@carmonaresources.com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13-24
			403

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39344-1
SDG Number: Lea County,New Mexico

Login Number: 39344
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39346-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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my EOL

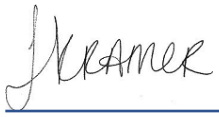
Eurofins Midland

Job Notes

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

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

Authorization



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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39346-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
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: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39346-1

Job ID: 880-39346-1 Eurofins Midland

Job Narrative
880-39346-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-6(0-1') (880-39346-1), BH-6(2') (880-39346-2) and BH-6(3') (880-39346-3).

GC VOA
Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73799 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-73799/2).

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: BH-6(0-1') (880-39346-1), BH-6(2') (880-39346-2), BH-6(3') (880-39346-3), (880-39344-A-1-D MS) and (880-39344-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-73296 and analytical batch 880-73424 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73296 and analytical batch 880-73424 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike (MS) recoveries for preparation batch 880-73142 and analytical batch 880-73273 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Client Sample ID: BH-6(0-1')

Lab Sample ID: 880-39346-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00232**		0.00202		mg/Kg		02/15/24 15:33	02/22/24 01:24	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/22/24 01:24	1
Ethylbenzene	**0.00224**		0.00202		mg/Kg		02/15/24 15:33	02/22/24 01:24	1
m-Xylene & p-Xylene	**0.00780**		0.00404		mg/Kg		02/15/24 15:33	02/22/24 01:24	1
o-Xylene	**0.00723**		0.00202		mg/Kg		02/15/24 15:33	02/22/24 01:24	1
Xylenes, Total	**0.0150**		0.00404		mg/Kg		02/15/24 15:33	02/22/24 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/15/24 15:33*	*02/22/24 01:24*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*02/15/24 15:33*	*02/22/24 01:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0196**		0.00404		mg/Kg			02/22/24 01:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/19/24 12:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:08	02/19/24 12:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:08	02/19/24 12:34	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:08	02/19/24 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/15/24 17:08*	*02/19/24 12:34*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/15/24 17:08*	*02/19/24 12:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**602**	**F1**	4.97		mg/Kg			02/15/24 19:48	1

Client Sample ID: BH-6(2')

Lab Sample ID: 880-39346-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:33	02/22/24 01:45	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:33	02/22/24 01:45	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:33	02/22/24 01:45	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:33	02/22/24 01:45	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:33	02/22/24 01:45	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:33	02/22/24 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/15/24 15:33*	*02/22/24 01:45*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:33*	*02/22/24 01:45*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Client Sample ID: BH-6(2')

Lab Sample ID: 880-39346-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/22/24 01:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/19/24 12:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 12:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 12:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 12:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*02/15/24 17:08*	*02/19/24 12:58*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/15/24 17:08*	*02/19/24 12:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**88.2**		5.02		mg/Kg			02/15/24 20:01	1

Client Sample ID: BH-6(3')

Lab Sample ID: 880-39346-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/22/24 02:05	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/22/24 02:05	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/22/24 02:05	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:33	02/22/24 02:05	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:33	02/22/24 02:05	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:33	02/22/24 02:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/15/24 15:33*	*02/22/24 02:05*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:33*	*02/22/24 02:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/22/24 02:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			02/19/24 13:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		02/15/24 17:08	02/19/24 13:22	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		02/15/24 17:08	02/19/24 13:22	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Client Sample ID: BH-6(3')
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39346-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		02/15/24 17:08	02/19/24 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*02/15/24 17:08*	*02/19/24 13:22*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/15/24 17:08*	*02/19/24 13:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**66.1**		5.03		mg/Kg			02/15/24 20:06	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39346-1	BH-6(0-1')	108	99
880-39346-2	BH-6(2')	97	106
880-39346-3	BH-6(3')	103	106
890-6176-A-1-B MS	Matrix Spike	104	106
890-6176-A-1-C MSD	Matrix Spike Duplicate	97	106
LCS 880-73284/1-A	Lab Control Sample	96	108
LCSD 880-73284/2-A	Lab Control Sample Dup	93	104
MB 880-73284/5-A	Method Blank	74	101

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39344-A-1-D MS	Matrix Spike	71	68 S1-
880-39344-A-1-E MSD	Matrix Spike Duplicate	64 S1-	64 S1-
880-39346-1	BH-6(0-1')	69 S1-	71
880-39346-2	BH-6(2')	68 S1-	71
880-39346-3	BH-6(3')	68 S1-	71
LCS 880-73296/2-A	Lab Control Sample	102	115
LCSD 880-73296/3-A	Lab Control Sample Dup	92	105
MB 880-73296/1-A - RA2	Method Blank	83	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73284/5-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73284

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:33	02/21/24 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*70 - 130*	*02/15/24 15:33*	*02/21/24 18:43*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/15/24 15:33*	*02/21/24 18:43*	*1*

Lab Sample ID: LCS 880-73284/1-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73284

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1305		mg/Kg		130	70 - 130		
Toluene			0.100	0.1001		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.09525		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1853		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09366		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-73284/2-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73284

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1169		mg/Kg		117	70 - 130	11	35
Toluene			0.100	0.09440		mg/Kg		94	70 - 130	6	35
Ethylbenzene			0.100	0.09104		mg/Kg		91	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1784		mg/Kg		89	70 - 130	4	35
o-Xylene			0.100	0.08973		mg/Kg		90	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-6176-A-1-B MS
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.100	0.1146		mg/Kg		114	70 - 130		
Toluene	<0.00199	U	0.100	0.08578		mg/Kg		86	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 890-6176-A-1-B MS
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.08293		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1602		mg/Kg		80	70 - 130
o-Xylene	<0.00199	U	0.100	0.08577		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-6176-A-1-C MSD
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1111		mg/Kg		110	70 - 130	3	35
Toluene	<0.00199	U	0.101	0.08237		mg/Kg		82	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.101	0.07895		mg/Kg		78	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1528		mg/Kg		76	70 - 130	5	35
o-Xylene	<0.00199	U	0.101	0.08147		mg/Kg		81	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: LCS 880-73296/2-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73296

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	968.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1037		mg/Kg		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: LCSD 880-73296/3-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73296

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1040		mg/Kg		104	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	1019		mg/Kg		102	70 - 130	2	20

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCSD 880-73296/3-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73296

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 880-39344-A-1-D MS
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73296

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	1000	904.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	694.5	F1	mg/Kg		67	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 880-39344-A-1-E MSD
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73296

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	<49.7	U F1 F2	1000	657.0	F1 F2	mg/Kg		61	70 - 130	32	20
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	645.1	F1	mg/Kg		62	70 - 130	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	64	S1-	70 - 130
o-Terphenyl	64	S1-	70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73296/1-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
OII Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane - RA2	83		70 - 130	02/15/24 17:08	02/19/24 07:50	1
o-Terphenyl - RA2	87		70 - 130	02/15/24 17:08	02/19/24 07:50	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73142/1-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 19:34	1

Lab Sample ID: LCS 880-73142/2-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	230.6		mg/Kg		92	90 - 110		

Lab Sample ID: LCSD 880-73142/3-A
Matrix: Solid
Analysis Batch: 73273

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	232.3		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-39346-1 MS
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: BH-6(0-1')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	602	F1	249	819.6	F1	mg/Kg		88	90 - 110		

Lab Sample ID: 880-39346-1 MSD
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: BH-6(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	602	F1	249	825.8		mg/Kg		90	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39346-1	BH-6(0-1')	Total/NA	Solid	5035	
880-39346-2	BH-6(2')	Total/NA	Solid	5035	
880-39346-3	BH-6(3')	Total/NA	Solid	5035	
MB 880-73284/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73284/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73284/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6176-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-6176-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39346-1	BH-6(0-1')	Total/NA	Solid	8021B	73284
880-39346-2	BH-6(2')	Total/NA	Solid	8021B	73284
880-39346-3	BH-6(3')	Total/NA	Solid	8021B	73284
MB 880-73284/5-A	Method Blank	Total/NA	Solid	8021B	73284
LCS 880-73284/1-A	Lab Control Sample	Total/NA	Solid	8021B	73284
LCSD 880-73284/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73284
890-6176-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	73284
890-6176-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73284

Analysis Batch: 73846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39346-1	BH-6(0-1')	Total/NA	Solid	Total BTEX	
880-39346-2	BH-6(2')	Total/NA	Solid	Total BTEX	
880-39346-3	BH-6(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39346-1	BH-6(0-1')	Total/NA	Solid	8015NM Prep	
880-39346-2	BH-6(2')	Total/NA	Solid	8015NM Prep	
880-39346-3	BH-6(3')	Total/NA	Solid	8015NM Prep	
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39344-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39344-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39346-1	BH-6(0-1')	Total/NA	Solid	8015B NM	73296
880-39346-2	BH-6(2')	Total/NA	Solid	8015B NM	73296
880-39346-3	BH-6(3')	Total/NA	Solid	8015B NM	73296
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73296
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73296
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73296
880-39344-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73296
880-39344-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73296

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

GC Semi VOA

Analysis Batch: 73622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39346-1	BH-6(0-1')	Total/NA	Solid	8015 NM	
880-39346-2	BH-6(2')	Total/NA	Solid	8015 NM	
880-39346-3	BH-6(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39346-1	BH-6(0-1')	Soluble	Solid	DI Leach	
880-39346-2	BH-6(2')	Soluble	Solid	DI Leach	
880-39346-3	BH-6(3')	Soluble	Solid	DI Leach	
MB 880-73142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39346-1 MS	BH-6(0-1')	Soluble	Solid	DI Leach	
880-39346-1 MSD	BH-6(0-1')	Soluble	Solid	DI Leach	

Analysis Batch: 73273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39346-1	BH-6(0-1')	Soluble	Solid	300.0	73142
880-39346-2	BH-6(2')	Soluble	Solid	300.0	73142
880-39346-3	BH-6(3')	Soluble	Solid	300.0	73142
MB 880-73142/1-A	Method Blank	Soluble	Solid	300.0	73142
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	300.0	73142
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73142
880-39346-1 MS	BH-6(0-1')	Soluble	Solid	300.0	73142
880-39346-1 MSD	BH-6(0-1')	Soluble	Solid	300.0	73142

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Client Sample ID: BH-6(0-1')

Lab Sample ID: 880-39346-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/22/24 01:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73846	02/22/24 01:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			73622	02/19/24 12:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 12:34	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 19:48	SMC	EET MID

Client Sample ID: BH-6(2')

Lab Sample ID: 880-39346-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/22/24 01:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73846	02/22/24 01:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			73622	02/19/24 12:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 12:58	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:01	SMC	EET MID

Client Sample ID: BH-6(3')

Lab Sample ID: 880-39346-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/22/24 02:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73846	02/22/24 02:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			73622	02/19/24 13:22	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 13:22	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:06	SMC	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: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39346-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39346-1	BH-6(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39346-2	BH-6(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39346-3	BH-6(3')	Solid	02/12/24 00:00	02/13/24 16:03

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Chain of Custody

880-39346 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City State ZIP	Houston TX 77024
Phone		Email	icastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	Yes No	
Received Intact:	(Yes) No	Thermometer ID	IR8	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1.0	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6	
Total Containers		Corrected Temperature	2.5	

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-6 (0-1')	2/12/2024		X		G	1		X	X	X	
BH-6 (2')	2/12/2024		X		G	1		X	X	X	
BH-6 (3')	2/12/2024		X		G	1		X	X	X	

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 Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02 13 24
			4 03

Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39346-1
SDG Number: Lea County,New Mexico

Login Number: 39346
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/22/2024 12:59:43 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39347-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

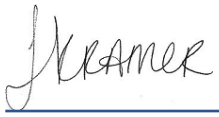
Eurofins Midland

Job Notes

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

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

Authorization



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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39347-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
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: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39347-1

Job ID: 880-39347-1 Eurofins Midland

Job Narrative
880-39347-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-7(0-1') (880-39347-1), BH-7(2') (880-39347-2) and BH-7(3') (880-39347-3).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: BH-7(3') (880-39347-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73285 and analytical batch 880-73718 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-39344-A-1-D MS) and (880-39344-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-73296 and analytical batch 880-73424 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73296 and analytical batch 880-73424 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike (MS) recoveries for preparation batch 880-73142 and analytical batch 880-73273 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Client Sample ID: BH-7(0-1')

Lab Sample ID: 880-39347-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 06:00	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 06:00	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 06:00	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:38	02/22/24 06:00	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:38	02/22/24 06:00	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:38	02/22/24 06:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*02/15/24 15:38*	*02/22/24 06:00*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*02/15/24 15:38*	*02/22/24 06:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 06:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/19/24 13:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:08	02/19/24 13:46	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/15/24 17:08	02/19/24 13:46	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:08	02/19/24 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/15/24 17:08*	*02/19/24 13:46*	*1*
o-Terphenyl	*72*		*70 - 130*	*02/15/24 17:08*	*02/19/24 13:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**227**		5.03		mg/Kg			02/15/24 20:11	1

Client Sample ID: BH-7(2')

Lab Sample ID: 880-39347-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 06:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 06:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 06:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:38	02/22/24 06:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 06:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:38	02/22/24 06:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*02/15/24 15:38*	*02/22/24 06:20*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*02/15/24 15:38*	*02/22/24 06:20*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Client Sample ID: BH-7(2')

Lab Sample ID: 880-39347-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/22/24 06:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/19/24 14:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 14:10	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 14:10	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*02/15/24 17:08*	*02/19/24 14:10*	*1*
o-Terphenyl	*79*		*70 - 130*	*02/15/24 17:08*	*02/19/24 14:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**268**		5.02		mg/Kg			02/15/24 20:15	1

Client Sample ID: BH-7(3')

Lab Sample ID: 880-39347-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 06:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 06:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 06:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:38	02/22/24 06:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/22/24 06:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:38	02/22/24 06:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*174*	*S1+*	*70 - 130*	*02/15/24 15:38*	*02/22/24 06:41*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/15/24 15:38*	*02/22/24 06:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/22/24 06:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/19/24 14:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:08	02/19/24 14:35	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:08	02/19/24 14:35	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Client Sample ID: BH-7(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39347-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:08	02/19/24 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:08*	*02/19/24 14:35*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/15/24 17:08*	*02/19/24 14:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**393**		5.04		mg/Kg			02/15/24 20:29	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39347-1	BH-7(0-1')	117	110
880-39347-2	BH-7(2')	127	111
880-39347-3	BH-7(3')	174 S1+	96
890-6178-A-1-C MS	Matrix Spike	109	103
890-6178-A-1-D MSD	Matrix Spike Duplicate	120	97
LCS 880-73285/1-A	Lab Control Sample	118	107
LCSD 880-73285/2-A	Lab Control Sample Dup	110	97
MB 880-73275/5-A	Method Blank	127	109
MB 880-73285/5-A	Method Blank	135 S1+	113

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39344-A-1-D MS	Matrix Spike	71	68 S1-
880-39344-A-1-E MSD	Matrix Spike Duplicate	64 S1-	64 S1-
880-39347-1	BH-7(0-1')	70	72
880-39347-2	BH-7(2')	78	79
880-39347-3	BH-7(3')	72	74
LCS 880-73296/2-A	Lab Control Sample	102	115
LCSD 880-73296/3-A	Lab Control Sample Dup	92	105
MB 880-73296/1-A - RA2	Method Blank	83	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73275/5-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73275

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:00	02/21/24 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*02/15/24 15:00*	*02/21/24 12:09*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/15/24 15:00*	*02/21/24 12:09*	*1*

Lab Sample ID: MB 880-73285/5-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73285

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:38	02/21/24 23:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*02/15/24 15:38*	*02/21/24 23:54*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/15/24 15:38*	*02/21/24 23:54*	*1*

Lab Sample ID: LCS 880-73285/1-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73285

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1296		mg/Kg		130	70 - 130		
Toluene			0.100	0.1038		mg/Kg		104	70 - 130		
Ethylbenzene			0.100	0.1218		mg/Kg		122	70 - 130		
m-Xylene & p-Xylene			0.200	0.2270		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1203		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-73285/2-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73285

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1238		mg/Kg		124	70 - 130	5	35

Eurofins Midland

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCSD 880-73285/2-A
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73285

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1055		mg/Kg		105	70 - 130	2	35
Ethylbenzene			0.100	0.1179		mg/Kg		118	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2076		mg/Kg		104	70 - 130	9	35
o-Xylene			0.100	0.1093		mg/Kg		109	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-6178-A-1-C MS
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73285

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.100	0.1184		mg/Kg		118	70 - 130
Toluene	<0.00199	U	0.100	0.09893		mg/Kg		99	70 - 130
Ethylbenzene	<0.00199	U	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1850		mg/Kg		92	70 - 130
o-Xylene	<0.00199	U	0.100	0.09963		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-6178-A-1-D MSD
Matrix: Solid
Analysis Batch: 73718

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73285

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1153		mg/Kg		115	70 - 130	3	35
Toluene	<0.00199	U	0.101	0.09478		mg/Kg		94	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.101	0.1075		mg/Kg		107	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1990		mg/Kg		99	70 - 130	7	35
o-Xylene	<0.00199	U	0.101	0.1099		mg/Kg		109	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: LCS 880-73296/2-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73296

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	968.5		mg/Kg		97	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73296/2-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73296

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics (Over C10-C28)			1000	1037		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: LCSD 880-73296/3-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73296

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1040		mg/Kg		104	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1019		mg/Kg		102	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: 880-39344-A-1-D MS
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73296

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	1000	904.1		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	694.5	F1	mg/Kg		67	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*71*		*70 - 130*
o-Terphenyl	*68*	*S1-*	*70 - 130*

Lab Sample ID: 880-39344-A-1-E MSD
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73296

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	<49.7	U F1 F2	1000	657.0	F1 F2	mg/Kg		61	70 - 130	32	20
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	645.1	F1	mg/Kg		62	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73296/1-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
Oil Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane - RA2	*83*		*70 - 130*	*02/15/24 17:08*	*02/19/24 07:50*	*1*
o-Terphenyl - RA2	*87*		*70 - 130*	*02/15/24 17:08*	*02/19/24 07:50*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73142/1-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 19:34	1

Lab Sample ID: LCS 880-73142/2-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	230.6		mg/Kg		92	90 - 110

Lab Sample ID: LCSD 880-73142/3-A
Matrix: Solid
Analysis Batch: 73273

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	232.3		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-39346-A-1-B MS
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	602	F1	249	819.6	F1	mg/Kg		88	90 - 110

Lab Sample ID: 880-39346-A-1-C MSD
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	602	F1	249	825.8		mg/Kg		90	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73275/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39347-1	BH-7(0-1')	Total/NA	Solid	5035	
880-39347-2	BH-7(2')	Total/NA	Solid	5035	
880-39347-3	BH-7(3')	Total/NA	Solid	5035	
MB 880-73285/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73285/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73285/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6178-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
890-6178-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39347-1	BH-7(0-1')	Total/NA	Solid	8021B	73285
880-39347-2	BH-7(2')	Total/NA	Solid	8021B	73285
880-39347-3	BH-7(3')	Total/NA	Solid	8021B	73285
MB 880-73275/5-A	Method Blank	Total/NA	Solid	8021B	73275
MB 880-73285/5-A	Method Blank	Total/NA	Solid	8021B	73285
LCS 880-73285/1-A	Lab Control Sample	Total/NA	Solid	8021B	73285
LCSD 880-73285/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73285
890-6178-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	73285
890-6178-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73285

Analysis Batch: 73851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39347-1	BH-7(0-1')	Total/NA	Solid	Total BTEX	
880-39347-2	BH-7(2')	Total/NA	Solid	Total BTEX	
880-39347-3	BH-7(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39347-1	BH-7(0-1')	Total/NA	Solid	8015NM Prep	
880-39347-2	BH-7(2')	Total/NA	Solid	8015NM Prep	
880-39347-3	BH-7(3')	Total/NA	Solid	8015NM Prep	
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39344-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39344-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39347-1	BH-7(0-1')	Total/NA	Solid	8015B NM	73296
880-39347-2	BH-7(2')	Total/NA	Solid	8015B NM	73296
880-39347-3	BH-7(3')	Total/NA	Solid	8015B NM	73296
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73296
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73296

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

GC Semi VOA (Continued)

Analysis Batch: 73424 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73296
880-39344-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73296
880-39344-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73296

Analysis Batch: 73623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39347-1	BH-7(0-1')	Total/NA	Solid	8015 NM	
880-39347-2	BH-7(2')	Total/NA	Solid	8015 NM	
880-39347-3	BH-7(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39347-1	BH-7(0-1')	Soluble	Solid	DI Leach	
880-39347-2	BH-7(2')	Soluble	Solid	DI Leach	
880-39347-3	BH-7(3')	Soluble	Solid	DI Leach	
MB 880-73142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39346-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39346-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39347-1	BH-7(0-1')	Soluble	Solid	300.0	73142
880-39347-2	BH-7(2')	Soluble	Solid	300.0	73142
880-39347-3	BH-7(3')	Soluble	Solid	300.0	73142
MB 880-73142/1-A	Method Blank	Soluble	Solid	300.0	73142
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	300.0	73142
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73142
880-39346-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	73142
880-39346-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73142

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Client Sample ID: BH-7(0-1')

Lab Sample ID: 880-39347-1

Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

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	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 06:00	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73851	02/22/24 06:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			73623	02/19/24 13:46	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 13:46	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:11	SMC	EET MID

Client Sample ID: BH-7(2')

Lab Sample ID: 880-39347-2

Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 06:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73851	02/22/24 06:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			73623	02/19/24 14:10	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 14:10	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:15	SMC	EET MID

Client Sample ID: BH-7(3')

Lab Sample ID: 880-39347-3

Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 06:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73851	02/22/24 06:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			73623	02/19/24 14:35	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 14:35	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:29	SMC	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: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39347-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39347-1	BH-7(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39347-2	BH-7(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39347-3	BH-7(3')	Solid	02/12/24 00:00	02/13/24 16:03

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2/22/2024

Page ___ of ___

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone		Email	icastro@marathonoil 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	Nighthawk State Com #003H	Turn Around		Pres. Code	
Project Number	2255	☑ Routine	☐ Rush		
Project Location	Lea County, New Mexico	Due Date	5 day		
Sampler's Name	CCM				
PO #:	CL 24 00354				

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	Yes No	
Received Intact:	(Yes) No	Thermometer ID	IR8	
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1.0	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6	
Total Containers		Corrected Temperature	2.5	

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-7 (0-1')	2/12/2024		X		G	1	X	X	X	
BH-7 (2')	2/12/2024		X		G	1	X	X	X	
BH-7 (3')	2/12/2024		X		G	1	X	X	X	

ANALYSIS REQUEST — Parameters

Preservative Codes

None NO — DI Water H_2O

Cool Cool — MeOH Me

HCL HC — HNO_3 HN

H_2S0_4 H_2 — NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources.com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24	JC12	02 13-24
			4:03

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Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39347-1
SDG Number: Lea County,New Mexico

Login Number: 39347
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/23/2024 5:24:21 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39348-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

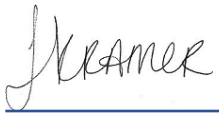
Eurofins Midland

Job Notes

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

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

Authorization



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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39348-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
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: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39348-1

Job ID: 880-39348-1 Eurofins Midland

Job Narrative
880-39348-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-8(0-1') (880-39348-1), BH-8(2') (880-39348-2) and BH-8(3') (880-39348-3).

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-39344-A-1-D MS) and (880-39344-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-73296 and analytical batch 880-73424 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73296 and analytical batch 880-73424 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike (MS) recoveries for preparation batch 880-73142 and analytical batch 880-73273 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Client Sample ID: BH-8(0-1')

Lab Sample ID: 880-39348-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/21/24 14:05	02/23/24 05:33	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/21/24 14:05	02/23/24 05:33	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/21/24 14:05	02/23/24 05:33	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/21/24 14:05	02/23/24 05:33	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/21/24 14:05	02/23/24 05:33	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/21/24 14:05	02/23/24 05:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*02/21/24 14:05*	*02/23/24 05:33*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/21/24 14:05*	*02/23/24 05:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/23/24 05:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/19/24 15:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/15/24 17:08	02/19/24 15:01	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/15/24 17:08	02/19/24 15:01	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/15/24 17:08	02/19/24 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*02/15/24 17:08*	*02/19/24 15:01*	*1*
o-Terphenyl	*82*		*70 - 130*	*02/15/24 17:08*	*02/19/24 15:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		5.00		mg/Kg			02/15/24 20:34	1

Client Sample ID: BH-8(2')

Lab Sample ID: 880-39348-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/21/24 14:05	02/23/24 05:54	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/21/24 14:05	02/23/24 05:54	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/21/24 14:05	02/23/24 05:54	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/21/24 14:05	02/23/24 05:54	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/21/24 14:05	02/23/24 05:54	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/21/24 14:05	02/23/24 05:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*02/21/24 14:05*	*02/23/24 05:54*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/21/24 14:05*	*02/23/24 05:54*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Client Sample ID: BH-8(2')

Lab Sample ID: 880-39348-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/23/24 05:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/19/24 15:54	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		02/15/24 17:08	02/19/24 15:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 15:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*02/15/24 17:08*	*02/19/24 15:54*	*1*
o-Terphenyl	*75*		*70 - 130*	*02/15/24 17:08*	*02/19/24 15:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85.6**		5.01		mg/Kg			02/15/24 20:38	1

Client Sample ID: BH-8(3')

Lab Sample ID: 880-39348-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/21/24 14:05	02/23/24 06:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/21/24 14:05	02/23/24 06:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/21/24 14:05	02/23/24 06:15	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/21/24 14:05	02/23/24 06:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/21/24 14:05	02/23/24 06:15	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/21/24 14:05	02/23/24 06:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/21/24 14:05*	*02/23/24 06:15*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/21/24 14:05*	*02/23/24 06:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/23/24 06:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/19/24 16:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 16:21	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 16:21	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Client Sample ID: BH-8(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39348-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*02/15/24 17:08*	*02/19/24 16:21*	*1*
o-Terphenyl	*77*		*70 - 130*	*02/15/24 17:08*	*02/19/24 16:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52.9**		4.99		mg/Kg			02/15/24 20:43	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39348-1	BH-8(0-1')	101	107
880-39348-2	BH-8(2')	104	106
880-39348-3	BH-8(3')	108	104
890-6205-A-1-E MS	Matrix Spike	100	100
890-6205-A-1-F MSD	Matrix Spike Duplicate	98	99
LCS 880-73796/1-A	Lab Control Sample	102	103
LCSD 880-73796/2-A	Lab Control Sample Dup	102	103
MB 880-73775/5-A	Method Blank	76	101
MB 880-73796/5-B	Method Blank	84	92

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39344-A-1-D MS	Matrix Spike	71	68 S1-
880-39344-A-1-E MSD	Matrix Spike Duplicate	64 S1-	64 S1-
880-39348-1	BH-8(0-1')	80	82
880-39348-2	BH-8(2')	75	75
880-39348-3	BH-8(3')	76	77
LCS 880-73296/2-A	Lab Control Sample	102	115
LCSD 880-73296/3-A	Lab Control Sample Dup	92	105
MB 880-73296/1-A - RA2	Method Blank	83	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73775/5-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73775

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/24 11:59	02/22/24 17:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:18*	*1*

Lab Sample ID: MB 880-73796/5-B
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73796

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/24 14:05	02/23/24 04:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*02/21/24 14:05*	*02/23/24 04:09*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/21/24 14:05*	*02/23/24 04:09*	*1*

Lab Sample ID: LCS 880-73796/1-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73796

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1095		mg/Kg		110	70 - 130
Toluene	0.100	0.09315		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09085		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.1846		mg/Kg		92	70 - 130
o-Xylene	0.100	0.09694		mg/Kg		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-73796/2-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73796

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1218		mg/Kg		122	70 - 130	11	35

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCSD 880-73796/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73859 — **Prep Batch: 73796**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1031		mg/Kg		103	70 - 130	10	35
Ethylbenzene			0.100	0.1008		mg/Kg		101	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2039		mg/Kg		102	70 - 130	10	35
o-Xylene			0.100	0.1073		mg/Kg		107	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-6205-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73859 — **Prep Batch: 73796**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.101	0.09564		mg/Kg		95	70 - 130
Toluene	<0.00199	U	0.101	0.08370		mg/Kg		83	70 - 130
Ethylbenzene	<0.00199	U	0.101	0.08265		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1671		mg/Kg		83	70 - 130
o-Xylene	<0.00199	U	0.101	0.08716		mg/Kg		86	70 - 130

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

Lab Sample ID: 890-6205-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73859 — **Prep Batch: 73796**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09183		mg/Kg		92	70 - 130	4	35
Toluene	<0.00199	U	0.100	0.08084		mg/Kg		81	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.100	0.07961		mg/Kg		80	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1605		mg/Kg		80	70 - 130	4	35
o-Xylene	<0.00199	U	0.100	0.08265		mg/Kg		83	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: LCS 880-73296/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73424 — **Prep Batch: 73296**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	968.5		mg/Kg		97	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73296/2-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73296

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics (Over C10-C28)			1000	1037		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: LCSD 880-73296/3-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73296

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1040		mg/Kg		104	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1019		mg/Kg		102	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: 880-39344-A-1-D MS
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73296

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	1000	904.1		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	694.5	F1	mg/Kg		67	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*71*		*70 - 130*
o-Terphenyl	*68*	*S1-*	*70 - 130*

Lab Sample ID: 880-39344-A-1-E MSD
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73296

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	<49.7	U F1 F2	1000	657.0	F1 F2	mg/Kg		61	70 - 130	32	20
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	645.1	F1	mg/Kg		62	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73296/1-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
Oil Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane - RA2	*83*		*70 - 130*	*02/15/24 17:08*	*02/19/24 07:50*	*1*
o-Terphenyl - RA2	*87*		*70 - 130*	*02/15/24 17:08*	*02/19/24 07:50*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73142/1-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 19:34	1

Lab Sample ID: LCS 880-73142/2-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	230.6		mg/Kg		92	90 - 110		

Lab Sample ID: LCSD 880-73142/3-A
Matrix: Solid
Analysis Batch: 73273

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	232.3		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-39346-A-1-B MS
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	602	F1	249	819.6	F1	mg/Kg		88	90 - 110		

Lab Sample ID: 880-39346-A-1-C MSD
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	602	F1	249	825.8		mg/Kg		90	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73775/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39348-1	BH-8(0-1')	Total/NA	Solid	5035	
880-39348-2	BH-8(2')	Total/NA	Solid	5035	
880-39348-3	BH-8(3')	Total/NA	Solid	5035	
MB 880-73796/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-73796/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73796/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6205-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-6205-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39348-1	BH-8(0-1')	Total/NA	Solid	8021B	73796
880-39348-2	BH-8(2')	Total/NA	Solid	8021B	73796
880-39348-3	BH-8(3')	Total/NA	Solid	8021B	73796
MB 880-73775/5-A	Method Blank	Total/NA	Solid	8021B	73775
MB 880-73796/5-B	Method Blank	Total/NA	Solid	8021B	73796
LCS 880-73796/1-A	Lab Control Sample	Total/NA	Solid	8021B	73796
LCSD 880-73796/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73796
890-6205-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	73796
890-6205-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73796

Analysis Batch: 73959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39348-1	BH-8(0-1')	Total/NA	Solid	Total BTEX	
880-39348-2	BH-8(2')	Total/NA	Solid	Total BTEX	
880-39348-3	BH-8(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39348-1	BH-8(0-1')	Total/NA	Solid	8015NM Prep	
880-39348-2	BH-8(2')	Total/NA	Solid	8015NM Prep	
880-39348-3	BH-8(3')	Total/NA	Solid	8015NM Prep	
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39344-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39344-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39348-1	BH-8(0-1')	Total/NA	Solid	8015B NM	73296
880-39348-2	BH-8(2')	Total/NA	Solid	8015B NM	73296
880-39348-3	BH-8(3')	Total/NA	Solid	8015B NM	73296
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73296
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73296

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

GC Semi VOA (Continued)

Analysis Batch: 73424 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73296
880-39344-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73296
880-39344-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73296

Analysis Batch: 73624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39348-1	BH-8(0-1')	Total/NA	Solid	8015 NM	
880-39348-2	BH-8(2')	Total/NA	Solid	8015 NM	
880-39348-3	BH-8(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39348-1	BH-8(0-1')	Soluble	Solid	DI Leach	
880-39348-2	BH-8(2')	Soluble	Solid	DI Leach	
880-39348-3	BH-8(3')	Soluble	Solid	DI Leach	
MB 880-73142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39346-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39346-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39348-1	BH-8(0-1')	Soluble	Solid	300.0	73142
880-39348-2	BH-8(2')	Soluble	Solid	300.0	73142
880-39348-3	BH-8(3')	Soluble	Solid	300.0	73142
MB 880-73142/1-A	Method Blank	Soluble	Solid	300.0	73142
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	300.0	73142
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73142
880-39346-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	73142
880-39346-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73142

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Client Sample ID: BH-8(0-1')

Lab Sample ID: 880-39348-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73796	02/21/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/23/24 05:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73959	02/23/24 05:33	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73624	02/19/24 15:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 15:01	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:34	SMC	EET MID

Client Sample ID: BH-8(2')

Lab Sample ID: 880-39348-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73796	02/21/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/23/24 05:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73959	02/23/24 05:54	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73624	02/19/24 15:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 15:54	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:38	SMC	EET MID

Client Sample ID: BH-8(3')

Lab Sample ID: 880-39348-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73796	02/21/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/23/24 06:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73959	02/23/24 06:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73624	02/19/24 16:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 16:21	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:43	SMC	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: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39348-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39348-1	BH-8(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39348-2	BH-8(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39348-3	BH-8(3')	Solid	02/12/24 00:00	02/13/24 16:03

880-39348 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone	Email		icastro@marathonoil 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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine	☐ Rush
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	Yes No
Received Intact:	(Yes) No	Thermometer ID	IR6
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1.5
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6
Total Containers		Corrected Temperature	2.5

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	Hold	Sample Comments
BH-8 (0-1')	2/12/2024		X		G	1	X	X	X		
BH-8 (2')	2/12/2024		X		G	1	X	X	X		
BH-8 (3')	2/12/2024		X		G	1	X	X	X		

Comments Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13-24
			6:03

Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39348-1
SDG Number: Lea County,New Mexico

Login Number: 39348
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/23/2024 5:25:02 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39349-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
2/23/2024 5:25:02 PM

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39349-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery 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
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.

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: Nighthawk State Com #003H

Job ID: 880-39349-1

Job ID: 880-39349-1 Eurofins Midland

Job Narrative
880-39349-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-9(0-1') (880-39349-1), BH-9(2') (880-39349-2) and BH-9(3') (880-39349-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-73289/1-A) and (880-39351-A-2-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73289 and analytical batch 880-73858 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-39344-A-1-D MS) and (880-39344-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-73296 and analytical batch 880-73424 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73296 and analytical batch 880-73424 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike duplicate (MSD) recoveries for preparation batch 880-73141 and analytical batch 880-73262 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

Client Sample ID: BH-9(0-1')

Lab Sample ID: 880-39349-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 06:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 06:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 06:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/21/24 14:05	02/23/24 06:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 06:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/21/24 14:05	02/23/24 06:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*02/21/24 14:05*	*02/23/24 06:35*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/21/24 14:05*	*02/23/24 06:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/23/24 06:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/19/24 16:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:08	02/19/24 16:47	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/15/24 17:08	02/19/24 16:47	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/15/24 17:08	02/19/24 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*02/15/24 17:08*	*02/19/24 16:47*	*1*
o-Terphenyl	*75*		*70 - 130*	*02/15/24 17:08*	*02/19/24 16:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**668**		5.03		mg/Kg			02/15/24 17:38	1

Client Sample ID: BH-9(2')

Lab Sample ID: 880-39349-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/21/24 14:05	02/23/24 06:56	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/21/24 14:05	02/23/24 06:56	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/21/24 14:05	02/23/24 06:56	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/21/24 14:05	02/23/24 06:56	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/21/24 14:05	02/23/24 06:56	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/21/24 14:05	02/23/24 06:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/21/24 14:05*	*02/23/24 06:56*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/21/24 14:05*	*02/23/24 06:56*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

Client Sample ID: BH-9(2')

Lab Sample ID: 880-39349-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/23/24 06:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			02/19/24 17:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		02/15/24 17:08	02/19/24 17:13	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		02/15/24 17:08	02/19/24 17:13	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		02/15/24 17:08	02/19/24 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:08*	*02/19/24 17:13*	*1*
o-Terphenyl	*72*		*70 - 130*	*02/15/24 17:08*	*02/19/24 17:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	184		5.02		mg/Kg			02/15/24 17:45	1

Client Sample ID: BH-9(3')

Lab Sample ID: 880-39349-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:58	02/22/24 19:37	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:58	02/22/24 19:37	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:58	02/22/24 19:37	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:58	02/22/24 19:37	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:58	02/22/24 19:37	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:58	02/22/24 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*02/15/24 15:58*	*02/22/24 19:37*	*1*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*	*02/15/24 15:58*	*02/22/24 19:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/22/24 19:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/19/24 17:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 17:40	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 17:40	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

Client Sample ID: BH-9(3')
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39349-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:08	02/19/24 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*02/15/24 17:08*	*02/19/24 17:40*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/15/24 17:08*	*02/19/24 17:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	341		5.03		mg/Kg			02/15/24 17:52	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea 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)										
880-39349-1	BH-9(0-1')	107	108										
880-39349-2	BH-9(2')	105	107										
880-39349-3	BH-9(3')	93	126										
880-39351-A-2-F MS	Matrix Spike	126	138 S1+										
880-39351-A-2-G MSD	Matrix Spike Duplicate	101	114										
890-6205-A-1-E MS	Matrix Spike	100	100										
890-6205-A-1-F MSD	Matrix Spike Duplicate	98	99										
LCS 880-73289/1-A	Lab Control Sample	136 S1+	142 S1+										
LCS 880-73796/1-A	Lab Control Sample	102	103										
LCSD 880-73289/2-A	Lab Control Sample Dup	111	114										
LCSD 880-73796/2-A	Lab Control Sample Dup	102	103										
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+										
MB 880-73775/5-A	Method Blank	76	101										
MB 880-73796/5-B	Method Blank	84	92										

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)										
880-39344-A-1-D MS	Matrix Spike	71	68 S1-										
880-39344-A-1-E MSD	Matrix Spike Duplicate	64 S1-	64 S1-										
880-39349-1	BH-9(0-1')	73	75										
880-39349-2	BH-9(2')	72	72										
880-39349-3	BH-9(3')	73	74										
LCS 880-73296/2-A	Lab Control Sample	102	115										
LCSD 880-73296/3-A	Lab Control Sample Dup	92	105										
MB 880-73296/1-A - RA2	Method Blank	83	87										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73289/5-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*

Lab Sample ID: LCS 880-73289/1-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09374		mg/Kg		94	70 - 130
Toluene	0.100	0.09940		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2090		mg/Kg		105	70 - 130
o-Xylene	0.100	0.09283		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*142*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-73289/2-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09160		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09885		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.09688		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2111		mg/Kg		106	70 - 130	1	35
o-Xylene	0.100	0.09978		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-39351-A-2-F MS
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.100	0.1199		mg/Kg		120	70 - 130
Toluene	<0.00198	U	0.100	0.1156		mg/Kg		115	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39351-A-2-F MS | **Client Sample ID: Matrix Spike**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 73858 | **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.100	0.1311	F1	mg/Kg		131	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2532		mg/Kg		126	70 - 130
o-Xylene	<0.00198	U	0.100	0.1217		mg/Kg		121	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*138*	*S1+*	*70 - 130*

Lab Sample ID: 880-39351-A-2-G MSD | **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 73858 | **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.1212		mg/Kg		120	70 - 130	1	35
Toluene	<0.00198	U	0.101	0.1102		mg/Kg		110	70 - 130	5	35
Ethylbenzene	<0.00198	U F1	0.101	0.1156		mg/Kg		115	70 - 130	13	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2450		mg/Kg		122	70 - 130	3	35
o-Xylene	<0.00198	U	0.101	0.1198		mg/Kg		119	70 - 130	2	35

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

Lab Sample ID: MB 880-73775/5-A | **Client Sample ID: Method Blank**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 73859 | **Prep Batch: 73775**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/24 11:59	02/22/24 17:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:18*	*1*

Lab Sample ID: MB 880-73796/5-B | **Client Sample ID: Method Blank**
Matrix: Solid | **Prep Type: Total/NA**
Analysis Batch: 73859 | **Prep Batch: 73796**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/24 14:05	02/23/24 04:09	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

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

Lab Sample ID: MB 880-73796/5-B
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73796

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/24 14:05	02/23/24 04:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*02/21/24 14:05*	*02/23/24 04:09*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/21/24 14:05*	*02/23/24 04:09*	*1*

Lab Sample ID: LCS 880-73796/1-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73796

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1095		mg/Kg		110	70 - 130		
Toluene			0.100	0.09315		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.09085		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1846		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09694		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-73796/2-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73796

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1218		mg/Kg		122	70 - 130	11	35
Toluene			0.100	0.1031		mg/Kg		103	70 - 130	10	35
Ethylbenzene			0.100	0.1008		mg/Kg		101	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2039		mg/Kg		102	70 - 130	10	35
o-Xylene			0.100	0.1073		mg/Kg		107	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-6205-A-1-E MS
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.101	0.09564		mg/Kg		95	70 - 130		
Toluene	<0.00199	U	0.101	0.08370		mg/Kg		83	70 - 130		
Ethylbenzene	<0.00199	U	0.101	0.08265		mg/Kg		82	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1671		mg/Kg		83	70 - 130		
o-Xylene	<0.00199	U	0.101	0.08716		mg/Kg		86	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 890-6205-A-1-E MS
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73796

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

Lab Sample ID: 890-6205-A-1-F MSD
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73796

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09183		mg/Kg		92	70 - 130	4	35
Toluene	<0.00199	U	0.100	0.08084		mg/Kg		81	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.100	0.07961		mg/Kg		80	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1605		mg/Kg		80	70 - 130	4	35
o-Xylene	<0.00199	U	0.100	0.08265		mg/Kg		83	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: LCS 880-73296/2-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73296

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	968.5		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1037		mg/Kg		104	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: LCSD 880-73296/3-A
Matrix: Solid
Analysis Batch: 73424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73296

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1040		mg/Kg		104	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1019		mg/Kg		102	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39344-A-1-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73424 — **Prep Batch: 73296**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	1000	904.1		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	694.5	F1	mg/Kg		67	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*71*		*70 - 130*
o-Terphenyl	*68*	*S1-*	*70 - 130*

Lab Sample ID: 880-39344-A-1-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73424 — **Prep Batch: 73296**

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	<49.7	U F1 F2	1000	657.0	F1 F2	mg/Kg		61	70 - 130	32	20
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1000	645.1	F1	mg/Kg		62	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*64*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73296/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73424 — **Prep Batch: 73296**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1
OII Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:08	02/19/24 07:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane - RA2	*83*		*70 - 130*	*02/15/24 17:08*	*02/19/24 07:50*	*1*
o-Terphenyl - RA2	*87*		*70 - 130*	*02/15/24 17:08*	*02/19/24 07:50*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73141/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73262

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 15:55	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-73141/2-A
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-73141/3-A
Matrix: Solid
Analysis Batch: 73262

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

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

Lab Sample ID: 880-39349-3 MS
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: BH-9(3')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	341		252	585.7		mg/Kg		97	90 - 110		

Lab Sample ID: 880-39349-3 MSD
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: BH-9(3')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	341		252	579.7		mg/Kg		95	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-3	BH-9(3')	Total/NA	Solid	5035	
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	5035	
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 73775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73775/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-1	BH-9(0-1')	Total/NA	Solid	5035	
880-39349-2	BH-9(2')	Total/NA	Solid	5035	
MB 880-73796/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-73796/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73796/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6205-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-6205-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-3	BH-9(3')	Total/NA	Solid	8021B	73289
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	8021B	73289
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73289
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	8021B	73289
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73289

Analysis Batch: 73859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-1	BH-9(0-1')	Total/NA	Solid	8021B	73796
880-39349-2	BH-9(2')	Total/NA	Solid	8021B	73796
MB 880-73775/5-A	Method Blank	Total/NA	Solid	8021B	73775
MB 880-73796/5-B	Method Blank	Total/NA	Solid	8021B	73796
LCS 880-73796/1-A	Lab Control Sample	Total/NA	Solid	8021B	73796
LCSD 880-73796/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73796
890-6205-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	73796
890-6205-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73796

Analysis Batch: 73960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-1	BH-9(0-1')	Total/NA	Solid	Total BTEX	
880-39349-2	BH-9(2')	Total/NA	Solid	Total BTEX	
880-39349-3	BH-9(3')	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

GC Semi VOA

Prep Batch: 73296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-1	BH-9(0-1')	Total/NA	Solid	8015NM Prep	
880-39349-2	BH-9(2')	Total/NA	Solid	8015NM Prep	
880-39349-3	BH-9(3')	Total/NA	Solid	8015NM Prep	
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39344-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39344-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-1	BH-9(0-1')	Total/NA	Solid	8015B NM	73296
880-39349-2	BH-9(2')	Total/NA	Solid	8015B NM	73296
880-39349-3	BH-9(3')	Total/NA	Solid	8015B NM	73296
MB 880-73296/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73296
LCS 880-73296/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73296
LCSD 880-73296/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73296
880-39344-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	73296
880-39344-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73296

Analysis Batch: 73625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-1	BH-9(0-1')	Total/NA	Solid	8015 NM	
880-39349-2	BH-9(2')	Total/NA	Solid	8015 NM	
880-39349-3	BH-9(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-1	BH-9(0-1')	Soluble	Solid	DI Leach	
880-39349-2	BH-9(2')	Soluble	Solid	DI Leach	
880-39349-3	BH-9(3')	Soluble	Solid	DI Leach	
MB 880-73141/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73141/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73141/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39349-3 MS	BH-9(3')	Soluble	Solid	DI Leach	
880-39349-3 MSD	BH-9(3')	Soluble	Solid	DI Leach	

Analysis Batch: 73262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39349-1	BH-9(0-1')	Soluble	Solid	300.0	73141
880-39349-2	BH-9(2')	Soluble	Solid	300.0	73141
880-39349-3	BH-9(3')	Soluble	Solid	300.0	73141
MB 880-73141/1-A	Method Blank	Soluble	Solid	300.0	73141
LCS 880-73141/2-A	Lab Control Sample	Soluble	Solid	300.0	73141
LCSD 880-73141/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73141
880-39349-3 MS	BH-9(3')	Soluble	Solid	300.0	73141
880-39349-3 MSD	BH-9(3')	Soluble	Solid	300.0	73141

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

Client Sample ID: BH-9(0-1')

Lab Sample ID: 880-39349-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73796	02/21/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/23/24 06:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73960	02/23/24 06:35	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73625	02/19/24 16:47	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 16:47	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 17:38	SMC	EET MID

Client Sample ID: BH-9(2')

Lab Sample ID: 880-39349-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73796	02/21/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/23/24 06:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73960	02/23/24 06:56	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73625	02/19/24 17:13	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 17:13	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 17:45	SMC	EET MID

Client Sample ID: BH-9(3')

Lab Sample ID: 880-39349-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 19:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73960	02/22/24 19:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73625	02/19/24 17:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73296	02/15/24 17:08	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73424	02/19/24 17:40	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 17:52	SMC	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: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39349-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39349-1	BH-9(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39349-2	BH-9(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39349-3	BH-9(3')	Solid	02/12/24 00:00	02/13/24 16:03

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Received by OCD: 3/27/2024 4:56:13 PM

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880-39349 Chain of Custody

Page 1 of

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name.	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone.		Email	icastro@marathonoil com

Work Order Comments

Program UST/PST ☐ PRP ☐ rownfields ☐ RC ☐ perfund ☐

State of Project:

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

Deliverables EDD ☐ ADaPT ☐ Other

Project Name	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	Yes No
Received Intact:	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals	Yes No N/A	Correction Factor	-1.0
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.4
Total Containers		Corrected Temperature	2.5

ANALYSIS REQUEST

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-9 (0-1')	2/12/2024		X		G	1	X	X	X	
BH-9 (2')	2/12/2024		X		G	1	X	X	X	
BH-9 (3')	2/12/2024		X		G	1	X	X	X	

Preservative Codes

None NO DI Water H_2O

Cool Cool MeOH Me

HCL HC HNO_3 HN

H_2S0_4 H_2 NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02 13-24
			4 03

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39349-1
SDG Number: Lea County,New Mexico

Login Number: 39349
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39351-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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my EOL

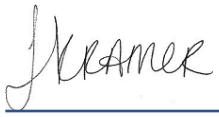
Eurofins Midland

Job Notes

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

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

Authorization



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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39351-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39351-1

Job ID: 880-39351-1 Eurofins Midland

Job Narrative
880-39351-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-10(0-1') (880-39351-1), BH-10(2') (880-39351-2) and BH-10(3') (880-39351-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-73289/1-A) and (880-39351-A-2-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73289 and analytical batch 880-73858 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73298 and analytical batch 880-73414 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-73298 and analytical batch 880-73414 was outside control limits. Sample non-homogeneity is suspected.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike (MS) recoveries for preparation batch 880-73142 and analytical batch 880-73273 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

Client Sample ID: BH-10(0-1')

Lab Sample ID: 880-39351-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0998	U	0.0998		mg/Kg		02/22/24 14:05	02/23/24 07:17	50
Toluene	<0.0998	U	0.0998		mg/Kg		02/22/24 14:05	02/23/24 07:17	50
Ethylbenzene	<0.0998	U	0.0998		mg/Kg		02/22/24 14:05	02/23/24 07:17	50
m-Xylene & p-Xylene	<0.200	U	0.200		mg/Kg		02/22/24 14:05	02/23/24 07:17	50
o-Xylene	<0.0998	U	0.0998		mg/Kg		02/22/24 14:05	02/23/24 07:17	50
Xylenes, Total	<0.200	U	0.200		mg/Kg		02/22/24 14:05	02/23/24 07:17	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*02/22/24 14:05*	*02/23/24 07:17*	*50*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/22/24 14:05*	*02/23/24 07:17*	*50*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.200	U	0.200		mg/Kg			02/23/24 07:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**235**		50.5		mg/Kg			02/18/24 12:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:16	02/18/24 12:26	1
Diesel Range Organics (Over C10-C28)	**235**		50.5		mg/Kg		02/15/24 17:16	02/18/24 12:26	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:16	02/18/24 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*02/15/24 17:16*	*02/18/24 12:26*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/15/24 17:16*	*02/18/24 12:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**669**		4.96		mg/Kg			02/15/24 20:48	1

Client Sample ID: BH-10(2')

Lab Sample ID: 880-39351-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 18:43	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 18:43	1
Ethylbenzene	<0.00198	U F1	0.00198		mg/Kg		02/15/24 15:58	02/22/24 18:43	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:58	02/22/24 18:43	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 18:43	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:58	02/22/24 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*02/15/24 15:58*	*02/22/24 18:43*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*02/15/24 15:58*	*02/22/24 18:43*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

Client Sample ID: BH-10(2')

Lab Sample ID: 880-39351-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/22/24 18:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/18/24 12:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 12:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 12:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*02/15/24 17:16*	*02/18/24 12:49*	*1*
o-Terphenyl	*92*		*70 - 130*	*02/15/24 17:16*	*02/18/24 12:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**59.2**		5.03		mg/Kg			02/15/24 20:53	1

Client Sample ID: BH-10(3')

Lab Sample ID: 880-39351-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 19:10	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 19:10	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 19:10	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/15/24 15:58	02/22/24 19:10	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 19:10	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/15/24 15:58	02/22/24 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*02/15/24 15:58*	*02/22/24 19:10*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/15/24 15:58*	*02/22/24 19:10*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/22/24 19:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/18/24 13:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:16	02/18/24 13:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:16	02/18/24 13:11	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

Client Sample ID: BH-10(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39351-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:16	02/18/24 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*02/15/24 17:16*	*02/18/24 13:11*	*1*
o-Terphenyl	*91*		*70 - 130*	*02/15/24 17:16*	*02/18/24 13:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58.8**		5.02		mg/Kg			02/15/24 21:06	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea 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)
880-39351-1	BH-10(0-1')	84	96
880-39351-2	BH-10(2')	116	115
880-39351-2 MS	BH-10(2')	126	138 S1+
880-39351-2 MSD	BH-10(2')	101	114
880-39351-3	BH-10(3')	120	113
890-6205-A-1-E MS	Matrix Spike	100	100
890-6205-A-1-F MSD	Matrix Spike Duplicate	98	99
LCS 880-73289/1-A	Lab Control Sample	136 S1+	142 S1+
LCS 880-73796/1-A	Lab Control Sample	102	103
LCSD 880-73289/2-A	Lab Control Sample Dup	111	114
LCSD 880-73796/2-A	Lab Control Sample Dup	102	103
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+
MB 880-73775/5-A	Method Blank	76	101
MB 880-73796/5-B	Method Blank	84	92

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)
880-39351-1	BH-10(0-1')	99	80
880-39351-2	BH-10(2')	114	92
880-39351-3	BH-10(3')	115	91
890-6117-A-1-I MS	Matrix Spike	100	73
890-6117-A-1-J MSD	Matrix Spike Duplicate	126	93
LCS 880-73298/2-A	Lab Control Sample	94	97
LCSD 880-73298/3-A	Lab Control Sample Dup	97	96
MB 880-73298/1-A	Method Blank	207 S1+	179 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73289/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*

Lab Sample ID: LCS 880-73289/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09374		mg/Kg		94	70 - 130
Toluene	0.100	0.09940		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2090		mg/Kg		105	70 - 130
o-Xylene	0.100	0.09283		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*142*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-73289/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09160		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09885		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.09688		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2111		mg/Kg		106	70 - 130	1	35
o-Xylene	0.100	0.09978		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-39351-2 MS — **Client Sample ID: BH-10(2')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.100	0.1199		mg/Kg		120	70 - 130
Toluene	<0.00198	U	0.100	0.1156		mg/Kg		115	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39351-2 MS — **Client Sample ID: BH-10(2')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.100	0.1311	F1	mg/Kg		131	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2532		mg/Kg		126	70 - 130
o-Xylene	<0.00198	U	0.100	0.1217		mg/Kg		121	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*138*	*S1+*	*70 - 130*

Lab Sample ID: 880-39351-2 MSD — **Client Sample ID: BH-10(2')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.1212		mg/Kg		120	70 - 130	1	35
Toluene	<0.00198	U	0.101	0.1102		mg/Kg		110	70 - 130	5	35
Ethylbenzene	<0.00198	U F1	0.101	0.1156		mg/Kg		115	70 - 130	13	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2450		mg/Kg		122	70 - 130	3	35
o-Xylene	<0.00198	U	0.101	0.1198		mg/Kg		119	70 - 130	2	35

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

Lab Sample ID: MB 880-73775/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73859 — **Prep Batch: 73775**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/24 11:59	02/22/24 17:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:18*	*1*

Lab Sample ID: MB 880-73796/5-B — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73859 — **Prep Batch: 73796**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/24 14:05	02/23/24 04:09	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

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

Lab Sample ID: MB 880-73796/5-B
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73796

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 14:05	02/23/24 04:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/24 14:05	02/23/24 04:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*02/21/24 14:05*	*02/23/24 04:09*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/21/24 14:05*	*02/23/24 04:09*	*1*

Lab Sample ID: LCS 880-73796/1-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73796

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1095		mg/Kg		110	70 - 130		
Toluene			0.100	0.09315		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.09085		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1846		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09694		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-73796/2-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73796

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1218		mg/Kg		122	70 - 130	11	35
Toluene			0.100	0.1031		mg/Kg		103	70 - 130	10	35
Ethylbenzene			0.100	0.1008		mg/Kg		101	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2039		mg/Kg		102	70 - 130	10	35
o-Xylene			0.100	0.1073		mg/Kg		107	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-6205-A-1-E MS
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.101	0.09564		mg/Kg		95	70 - 130		
Toluene	<0.00199	U	0.101	0.08370		mg/Kg		83	70 - 130		
Ethylbenzene	<0.00199	U	0.101	0.08265		mg/Kg		82	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1671		mg/Kg		83	70 - 130		
o-Xylene	<0.00199	U	0.101	0.08716		mg/Kg		86	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 890-6205-A-1-E MS
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73796

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

Lab Sample ID: 890-6205-A-1-F MSD
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73796

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09183		mg/Kg		92	70 - 130	4	35
Toluene	<0.00199	U	0.100	0.08084		mg/Kg		81	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.100	0.07961		mg/Kg		80	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1605		mg/Kg		80	70 - 130	4	35
o-Xylene	<0.00199	U	0.100	0.08265		mg/Kg		83	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: MB 880-73298/1-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*207*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*
o-Terphenyl	*179*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	842.3		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	870.2		mg/Kg		87	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCSD 880-73298/3-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73298

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	873.1		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	828.5		mg/Kg		83	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: 890-6117-A-1-I MS
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73298

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	994	1185		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	895.0		mg/Kg		88	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: 890-6117-A-1-J MSD
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73298

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	994	1136		mg/Kg		111	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	1160	F2	mg/Kg		114	70 - 130	26	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*126*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73142/1-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 19:34	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-73142/2-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	230.6		mg/Kg		92	90 - 110		

Lab Sample ID: LCSD 880-73142/3-A
Matrix: Solid
Analysis Batch: 73273

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	232.3		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-39351-2 MS
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: BH-10(2')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	59.2		252	289.8		mg/Kg		92	90 - 110		

Lab Sample ID: 880-39351-2 MSD
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: BH-10(2')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	59.2		252	291.6		mg/Kg		92	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-2	BH-10(2')	Total/NA	Solid	5035	
880-39351-3	BH-10(3')	Total/NA	Solid	5035	
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39351-2 MS	BH-10(2')	Total/NA	Solid	5035	
880-39351-2 MSD	BH-10(2')	Total/NA	Solid	5035	

Prep Batch: 73775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73775/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-1	BH-10(0-1')	Total/NA	Solid	5035	
MB 880-73796/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-73796/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73796/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6205-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-6205-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-2	BH-10(2')	Total/NA	Solid	8021B	73289
880-39351-3	BH-10(3')	Total/NA	Solid	8021B	73289
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	8021B	73289
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73289
880-39351-2 MS	BH-10(2')	Total/NA	Solid	8021B	73289
880-39351-2 MSD	BH-10(2')	Total/NA	Solid	8021B	73289

Analysis Batch: 73859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-1	BH-10(0-1')	Total/NA	Solid	8021B	73796
MB 880-73775/5-A	Method Blank	Total/NA	Solid	8021B	73775
MB 880-73796/5-B	Method Blank	Total/NA	Solid	8021B	73796
LCS 880-73796/1-A	Lab Control Sample	Total/NA	Solid	8021B	73796
LCSD 880-73796/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73796
890-6205-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	73796
890-6205-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73796

Analysis Batch: 73961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-1	BH-10(0-1')	Total/NA	Solid	Total BTEX	
880-39351-2	BH-10(2')	Total/NA	Solid	Total BTEX	
880-39351-3	BH-10(3')	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

GC Semi VOA

Prep Batch: 73298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-1	BH-10(0-1')	Total/NA	Solid	8015NM Prep	
880-39351-2	BH-10(2')	Total/NA	Solid	8015NM Prep	
880-39351-3	BH-10(3')	Total/NA	Solid	8015NM Prep	
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-1	BH-10(0-1')	Total/NA	Solid	8015B NM	73298
880-39351-2	BH-10(2')	Total/NA	Solid	8015B NM	73298
880-39351-3	BH-10(3')	Total/NA	Solid	8015B NM	73298
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015B NM	73298
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73298
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73298
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	73298
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73298

Analysis Batch: 73536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-1	BH-10(0-1')	Total/NA	Solid	8015 NM	
880-39351-2	BH-10(2')	Total/NA	Solid	8015 NM	
880-39351-3	BH-10(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-1	BH-10(0-1')	Soluble	Solid	DI Leach	
880-39351-2	BH-10(2')	Soluble	Solid	DI Leach	
880-39351-3	BH-10(3')	Soluble	Solid	DI Leach	
MB 880-73142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39351-2 MS	BH-10(2')	Soluble	Solid	DI Leach	
880-39351-2 MSD	BH-10(2')	Soluble	Solid	DI Leach	

Analysis Batch: 73273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39351-1	BH-10(0-1')	Soluble	Solid	300.0	73142
880-39351-2	BH-10(2')	Soluble	Solid	300.0	73142
880-39351-3	BH-10(3')	Soluble	Solid	300.0	73142
MB 880-73142/1-A	Method Blank	Soluble	Solid	300.0	73142
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	300.0	73142
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73142
880-39351-2 MS	BH-10(2')	Soluble	Solid	300.0	73142
880-39351-2 MSD	BH-10(2')	Soluble	Solid	300.0	73142

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

Client Sample ID: BH-10(0-1')

Lab Sample ID: 880-39351-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73796	02/22/24 14:05	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	73859	02/23/24 07:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73961	02/23/24 07:17	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73536	02/18/24 12:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73298	02/15/24 17:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 12:26	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:48	SMC	EET MID

Client Sample ID: BH-10(2')

Lab Sample ID: 880-39351-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 18:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73961	02/22/24 18:43	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73536	02/18/24 12:49	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	73298	02/15/24 17:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 12:49	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 20:53	SMC	EET MID

Client Sample ID: BH-10(3')

Lab Sample ID: 880-39351-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 19:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73961	02/22/24 19:10	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73536	02/18/24 13:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73298	02/15/24 17:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 13:11	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/15/24 21:06	SMC	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: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39351-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39351-1	BH-10(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39351-2	BH-10(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39351-3	BH-10(3')	Solid	02/12/24 00:00	02/13/24 16:03

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W

880-39351 Chain of Custody

2/23/2024

Page ___1___ of ___1___

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone		Email	jcastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine	☐ Rush
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	Yes No
Received Intact:	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-.1
Sample Custody Seals	Yes No (N/A)	Temperature Reading	26
Total Containers		Corrected Temperature	25

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold	Sample Comments
BH-10 (0-1')	2/12/2024		X		G	1	X	X	X		
BH-10 (2')	2/12/2024		X		G	1	X	X	X		
BH-10 (3')	2/12/2024		X		G	1	X	X	X		

Pres. Code / Parameters / ANALYSIS REQUEST

Preservative Codes

None NO — DI Water H_2O

Cool Cool — MeOH Me

HCL HC — HNO_3 HN

H_2SO_4 H_2 — NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02 13 24
			4.03

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Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39351-1
SDG Number: Lea County,New Mexico

Login Number: 39351
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/23/2024 5:26:12 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39352-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

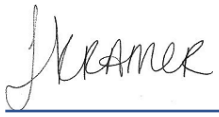
Eurofins Midland

Job Notes

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

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

Authorization



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2/23/2024 5:26:12 PM

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39352-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39352-1

Job ID: 880-39352-1 Eurofins Midland

Job Narrative
880-39352-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-11(0-1') (880-39352-1), BH-11(2') (880-39352-2) and BH-11(3') (880-39352-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-11(0-1') (880-39352-1), BH-11(2') (880-39352-2), (LCS 880-73289/1-A) and (880-39351-A-2-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73289 and analytical batch 880-73858 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73298 and analytical batch 880-73414 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-73298 and analytical batch 880-73414 was outside control limits. Sample non-homogeneity is suspected.

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: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Client Sample ID: BH-11(0-1')

Lab Sample ID: 880-39352-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 20:04	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 20:04	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 20:04	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:58	02/22/24 20:04	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 20:04	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:58	02/22/24 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 20:04*	*1*
1,4-Difluorobenzene (Surr)	*148*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 20:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/22/24 20:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**381**		50.0		mg/Kg			02/18/24 13:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 13:34	1
Diesel Range Organics (Over C10-C28)	**381**		50.0		mg/Kg		02/15/24 17:16	02/18/24 13:34	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*02/15/24 17:16*	*02/18/24 13:34*	*1*
o-Terphenyl	*93*		*70 - 130*	*02/15/24 17:16*	*02/18/24 13:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1860**		25.1		mg/Kg			02/16/24 09:21	5

Client Sample ID: BH-11(2')

Lab Sample ID: 880-39352-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 20:30	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 20:30	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 20:30	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		02/15/24 15:58	02/22/24 20:30	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 20:30	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		02/15/24 15:58	02/22/24 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/15/24 15:58*	*02/22/24 20:30*	*1*
1,4-Difluorobenzene (Surr)	*152*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 20:30*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Client Sample ID: BH-11(2')

Lab Sample ID: 880-39352-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/22/24 20:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**101**		49.8		mg/Kg			02/18/24 13:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/15/24 17:16	02/18/24 13:57	1
Diesel Range Organics (Over C10-C28)	**101**		49.8		mg/Kg		02/15/24 17:16	02/18/24 13:57	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/15/24 17:16	02/18/24 13:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*02/15/24 17:16*	*02/18/24 13:57*	*1*
o-Terphenyl	*101*		*70 - 130*	*02/15/24 17:16*	*02/18/24 13:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**280**		4.98		mg/Kg			02/16/24 09:35	1

Client Sample ID: BH-11(3')

Lab Sample ID: 880-39352-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 20:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 20:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 20:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/15/24 15:58	02/22/24 20:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 20:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/15/24 15:58	02/22/24 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*02/15/24 15:58*	*02/22/24 20:57*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*02/15/24 15:58*	*02/22/24 20:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/22/24 20:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/18/24 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:16	02/18/24 14:19	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/15/24 17:16	02/18/24 14:19	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Client Sample ID: BH-11(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39352-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:16	02/18/24 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*02/15/24 17:16*	*02/18/24 14:19*	*1*
o-Terphenyl	*89*		*70 - 130*	*02/15/24 17:16*	*02/18/24 14:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**252**		4.96		mg/Kg			02/16/24 09:40	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39351-A-2-F MS	Matrix Spike	126	138 S1+
880-39351-A-2-G MSD	Matrix Spike Duplicate	101	114
880-39352-1	BH-11(0-1')	132 S1+	148 S1+
880-39352-2	BH-11(2')	111	152 S1+
880-39352-3	BH-11(3')	125	117
LCS 880-73289/1-A	Lab Control Sample	136 S1+	142 S1+
LCSD 880-73289/2-A	Lab Control Sample Dup	111	114
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39352-1	BH-11(0-1')	115	93
880-39352-2	BH-11(2')	123	101
880-39352-3	BH-11(3')	109	89
890-6117-A-1-I MS	Matrix Spike	100	73
890-6117-A-1-J MSD	Matrix Spike Duplicate	126	93
LCS 880-73298/2-A	Lab Control Sample	94	97
LCSD 880-73298/3-A	Lab Control Sample Dup	97	96
MB 880-73298/1-A	Method Blank	207 S1+	179 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73289/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*

Lab Sample ID: LCS 880-73289/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09374		mg/Kg		94	70 - 130
Toluene	0.100	0.09940		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2090		mg/Kg		105	70 - 130
o-Xylene	0.100	0.09283		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*142*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-73289/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09160		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09885		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.09688		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2111		mg/Kg		106	70 - 130	1	35
o-Xylene	0.100	0.09978		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-39351-A-2-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.100	0.1199		mg/Kg		120	70 - 130
Toluene	<0.00198	U	0.100	0.1156		mg/Kg		115	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39351-A-2-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.100	0.1311	F1	mg/Kg		131	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2532		mg/Kg		126	70 - 130
o-Xylene	<0.00198	U	0.100	0.1217		mg/Kg		121	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*138*	*S1+*	*70 - 130*

Lab Sample ID: 880-39351-A-2-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.1212		mg/Kg		120	70 - 130	1	35
Toluene	<0.00198	U	0.101	0.1102		mg/Kg		110	70 - 130	5	35
Ethylbenzene	<0.00198	U F1	0.101	0.1156		mg/Kg		115	70 - 130	13	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2450		mg/Kg		122	70 - 130	3	35
o-Xylene	<0.00198	U	0.101	0.1198		mg/Kg		119	70 - 130	2	35

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

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

Lab Sample ID: MB 880-73298/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73414 — **Prep Batch: 73298**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*207*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*
o-Terphenyl	*179*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*

Lab Sample ID: LCS 880-73298/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73414 — **Prep Batch: 73298**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	842.3		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	870.2		mg/Kg		87	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-73298/3-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73298

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	873.1		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	828.5		mg/Kg		83	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-6117-A-1-I MS
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73298

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	994	1185		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	895.0		mg/Kg		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	73		70 - 130

Lab Sample ID: 890-6117-A-1-J MSD
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73298

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	994	1136		mg/Kg		111	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	1160	F2	mg/Kg		114	70 - 130	26	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	93		70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73142/1-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 19:34	1

Lab Sample ID: LCS 880-73142/2-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	230.6		mg/Kg		92	90 - 110		

Lab Sample ID: LCSD 880-73142/3-A
Matrix: Solid
Analysis Batch: 73273

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	232.3		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-39351-A-2-B MS
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	59.2		252	289.8		mg/Kg		92	90 - 110		

Lab Sample ID: 880-39351-A-2-C MSD
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	59.2		252	291.6		mg/Kg		92	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39352-1	BH-11(0-1')	Total/NA	Solid	5035	
880-39352-2	BH-11(2')	Total/NA	Solid	5035	
880-39352-3	BH-11(3')	Total/NA	Solid	5035	
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	5035	
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39352-1	BH-11(0-1')	Total/NA	Solid	8021B	73289
880-39352-2	BH-11(2')	Total/NA	Solid	8021B	73289
880-39352-3	BH-11(3')	Total/NA	Solid	8021B	73289
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	8021B	73289
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73289
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	8021B	73289
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73289

Analysis Batch: 73962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39352-1	BH-11(0-1')	Total/NA	Solid	Total BTEX	
880-39352-2	BH-11(2')	Total/NA	Solid	Total BTEX	
880-39352-3	BH-11(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39352-1	BH-11(0-1')	Total/NA	Solid	8015NM Prep	
880-39352-2	BH-11(2')	Total/NA	Solid	8015NM Prep	
880-39352-3	BH-11(3')	Total/NA	Solid	8015NM Prep	
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39352-1	BH-11(0-1')	Total/NA	Solid	8015B NM	73298
880-39352-2	BH-11(2')	Total/NA	Solid	8015B NM	73298
880-39352-3	BH-11(3')	Total/NA	Solid	8015B NM	73298
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015B NM	73298
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73298
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73298
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	73298
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73298

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

GC Semi VOA

Analysis Batch: 73537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39352-1	BH-11(0-1')	Total/NA	Solid	8015 NM	
880-39352-2	BH-11(2')	Total/NA	Solid	8015 NM	
880-39352-3	BH-11(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39352-1	BH-11(0-1')	Soluble	Solid	DI Leach	
880-39352-2	BH-11(2')	Soluble	Solid	DI Leach	
880-39352-3	BH-11(3')	Soluble	Solid	DI Leach	
MB 880-73142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39351-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39351-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39352-1	BH-11(0-1')	Soluble	Solid	300.0	73142
880-39352-2	BH-11(2')	Soluble	Solid	300.0	73142
880-39352-3	BH-11(3')	Soluble	Solid	300.0	73142
MB 880-73142/1-A	Method Blank	Soluble	Solid	300.0	73142
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	300.0	73142
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73142
880-39351-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	73142
880-39351-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73142

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Client Sample ID: BH-11(0-1')

Lab Sample ID: 880-39352-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 20:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73962	02/22/24 20:04	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73537	02/18/24 13:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73298	02/15/24 17:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 13:34	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	73273	02/16/24 09:21	SMC	EET MID

Client Sample ID: BH-11(2')

Lab Sample ID: 880-39352-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 20:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73962	02/22/24 20:30	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73537	02/18/24 13:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	73298	02/15/24 17:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 13:57	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/16/24 09:35	SMC	EET MID

Client Sample ID: BH-11(3')

Lab Sample ID: 880-39352-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 20:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73962	02/22/24 20:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73537	02/18/24 14:19	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73298	02/15/24 17:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 14:19	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/16/24 09:40	SMC	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: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39352-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39352-1	BH-11(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39352-2	BH-11(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39352-3	BH-11(3')	Solid	02/12/24 00:00	02/13/24 16:03

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C i c scy

880-39352 Chain of Custody

2/23/2024

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City State ZIP	Houston TX 77024
Phone	Email		icastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine	☐ Rush
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	Yes No
Received Intact:	Yes No	Thermometer ID	IR5
Cooler Custody Seals	Yes No (N/A)	Correction Factor	+1.0
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6
Total Containers		Corrected Temperature	2.5

ANALYSIS REQUEST

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-11 (0-1')	2/12/2024		X		G	1		X	X	X	
BH-11 (2')	2/12/2024		X		G	1		X	X	X	
BH-11 (3')	2/12/2024		X		G	1		X	X	X	

Preservative Codes

None NO DI Water H_2O

Cool Cool MeOH Me

HCL HC HNO_3 HN

H_2S0_4 H_2 NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources com Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13-24
			4:02

Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39352-1
SDG Number: Lea County,New Mexico

Login Number: 39352
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/23/2024 5:26:44 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39353-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

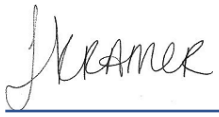
Eurofins Midland

Job Notes

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

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

Authorization



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2/23/2024 5:26:44 PM

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39353-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39353-1

Job ID: 880-39353-1 Eurofins Midland

Job Narrative
880-39353-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-12(0-1') (880-39353-1), BH-12(2') (880-39353-2) and BH-12(3') (880-39353-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-73289/1-A) and (880-39351-A-2-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73289 and analytical batch 880-73858 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73298 and analytical batch 880-73414 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-73298 and analytical batch 880-73414 was outside control limits. Sample non-homogeneity is suspected.

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: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Client Sample ID: BH-12(0-1')

Lab Sample ID: 880-39353-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/22/24 21:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/22/24 21:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/22/24 21:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:58	02/22/24 21:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/22/24 21:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:58	02/22/24 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*02/15/24 15:58*	*02/22/24 21:24*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*02/15/24 15:58*	*02/22/24 21:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 21:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			02/18/24 15:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		02/15/24 17:16	02/18/24 15:04	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		02/15/24 17:16	02/18/24 15:04	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		02/15/24 17:16	02/18/24 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*02/15/24 17:16*	*02/18/24 15:04*	*1*
o-Terphenyl	*79*		*70 - 130*	*02/15/24 17:16*	*02/18/24 15:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**479**		5.00		mg/Kg			02/16/24 09:44	1

Client Sample ID: BH-12(2')

Lab Sample ID: 880-39353-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 21:51	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 21:51	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 21:51	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:58	02/22/24 21:51	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:58	02/22/24 21:51	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:58	02/22/24 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*02/15/24 15:58*	*02/22/24 21:51*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/15/24 15:58*	*02/22/24 21:51*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Client Sample ID: BH-12(2')

Lab Sample ID: 880-39353-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/22/24 21:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/18/24 15:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:16	02/18/24 15:26	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:16	02/18/24 15:26	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:16	02/18/24 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/15/24 17:16*	*02/18/24 15:26*	*1*
o-Terphenyl	*80*		*70 - 130*	*02/15/24 17:16*	*02/18/24 15:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**114**		4.99		mg/Kg			02/16/24 09:49	1

Client Sample ID: BH-12(3')

Lab Sample ID: 880-39353-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 22:17	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 22:17	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 22:17	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:58	02/22/24 22:17	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/22/24 22:17	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:58	02/22/24 22:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/15/24 15:58*	*02/22/24 22:17*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*02/15/24 15:58*	*02/22/24 22:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/22/24 22:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			02/18/24 15:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		02/15/24 17:21	02/18/24 15:49	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		02/15/24 17:21	02/18/24 15:49	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Client Sample ID: BH-12(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39353-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		02/15/24 17:21	02/18/24 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*02/15/24 17:21*	*02/18/24 15:49*	*1*
o-Terphenyl	*94*		*70 - 130*	*02/15/24 17:21*	*02/18/24 15:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**122**		4.99		mg/Kg			02/16/24 09:54	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39351-A-2-F MS	Matrix Spike	126	138 S1+
880-39351-A-2-G MSD	Matrix Spike Duplicate	101	114
880-39353-1	BH-12(0-1')	124	118
880-39353-2	BH-12(2')	118	93
880-39353-3	BH-12(3')	91	76
LCS 880-73289/1-A	Lab Control Sample	136 S1+	142 S1+
LCSD 880-73289/2-A	Lab Control Sample Dup	111	114
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39353-1	BH-12(0-1')	96	79
880-39353-2	BH-12(2')	98	80
880-39353-3	BH-12(3')	112	94
890-6117-A-1-I MS	Matrix Spike	100	73
890-6117-A-1-J MSD	Matrix Spike Duplicate	126	93
LCS 880-73298/2-A	Lab Control Sample	94	97
LCSD 880-73298/3-A	Lab Control Sample Dup	97	96
MB 880-73298/1-A	Method Blank	207 S1+	179 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73289/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*

Lab Sample ID: LCS 880-73289/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09374		mg/Kg		94	70 - 130
Toluene	0.100	0.09940		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2090		mg/Kg		105	70 - 130
o-Xylene	0.100	0.09283		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*142*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-73289/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09160		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09885		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.09688		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2111		mg/Kg		106	70 - 130	1	35
o-Xylene	0.100	0.09978		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-39351-A-2-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.100	0.1199		mg/Kg		120	70 - 130
Toluene	<0.00198	U	0.100	0.1156		mg/Kg		115	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39351-A-2-F MS
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.100	0.1311	F1	mg/Kg		131	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2532		mg/Kg		126	70 - 130
o-Xylene	<0.00198	U	0.100	0.1217		mg/Kg		121	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*138*	*S1+*	*70 - 130*

Lab Sample ID: 880-39351-A-2-G MSD
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.1212		mg/Kg		120	70 - 130	1	35
Toluene	<0.00198	U	0.101	0.1102		mg/Kg		110	70 - 130	5	35
Ethylbenzene	<0.00198	U F1	0.101	0.1156		mg/Kg		115	70 - 130	13	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2450		mg/Kg		122	70 - 130	3	35
o-Xylene	<0.00198	U	0.101	0.1198		mg/Kg		119	70 - 130	2	35

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

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

Lab Sample ID: MB 880-73298/1-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*207*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*
o-Terphenyl	*179*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	842.3		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	870.2		mg/Kg		87	70 - 130

Eurofins Midland

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-73298/3-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73298

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	873.1		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	828.5		mg/Kg		83	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-6117-A-1-I MS
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73298

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	994	1185		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	895.0		mg/Kg		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	73		70 - 130

Lab Sample ID: 890-6117-A-1-J MSD
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73298

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	994	1136		mg/Kg		111	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	1160	F2	mg/Kg		114	70 - 130	26	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	93		70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73142/1-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 19:34	1

Lab Sample ID: LCS 880-73142/2-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	230.6		mg/Kg		92	90 - 110		

Lab Sample ID: LCSD 880-73142/3-A
Matrix: Solid
Analysis Batch: 73273

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	232.3		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-39351-A-2-B MS
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	59.2		252	289.8		mg/Kg		92	90 - 110		

Lab Sample ID: 880-39351-A-2-C MSD
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	59.2		252	291.6		mg/Kg		92	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39353-1	BH-12(0-1')	Total/NA	Solid	5035	
880-39353-2	BH-12(2')	Total/NA	Solid	5035	
880-39353-3	BH-12(3')	Total/NA	Solid	5035	
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	5035	
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39353-1	BH-12(0-1')	Total/NA	Solid	8021B	73289
880-39353-2	BH-12(2')	Total/NA	Solid	8021B	73289
880-39353-3	BH-12(3')	Total/NA	Solid	8021B	73289
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	8021B	73289
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73289
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	8021B	73289
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73289

Analysis Batch: 73963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39353-1	BH-12(0-1')	Total/NA	Solid	Total BTEX	
880-39353-2	BH-12(2')	Total/NA	Solid	Total BTEX	
880-39353-3	BH-12(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39353-1	BH-12(0-1')	Total/NA	Solid	8015NM Prep	
880-39353-2	BH-12(2')	Total/NA	Solid	8015NM Prep	
880-39353-3	BH-12(3')	Total/NA	Solid	8015NM Prep	
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39353-1	BH-12(0-1')	Total/NA	Solid	8015B NM	73298
880-39353-2	BH-12(2')	Total/NA	Solid	8015B NM	73298
880-39353-3	BH-12(3')	Total/NA	Solid	8015B NM	73298
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015B NM	73298
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73298
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73298
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	73298
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73298

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

GC Semi VOA

Analysis Batch: 73538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39353-1	BH-12(0-1')	Total/NA	Solid	8015 NM	
880-39353-2	BH-12(2')	Total/NA	Solid	8015 NM	
880-39353-3	BH-12(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39353-1	BH-12(0-1')	Soluble	Solid	DI Leach	
880-39353-2	BH-12(2')	Soluble	Solid	DI Leach	
880-39353-3	BH-12(3')	Soluble	Solid	DI Leach	
MB 880-73142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39351-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39351-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39353-1	BH-12(0-1')	Soluble	Solid	300.0	73142
880-39353-2	BH-12(2')	Soluble	Solid	300.0	73142
880-39353-3	BH-12(3')	Soluble	Solid	300.0	73142
MB 880-73142/1-A	Method Blank	Soluble	Solid	300.0	73142
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	300.0	73142
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73142
880-39351-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	73142
880-39351-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73142

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Client Sample ID: BH-12(0-1')

Lab Sample ID: 880-39353-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 21:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73963	02/22/24 21:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73538	02/18/24 15:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	73298	02/15/24 17:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 15:04	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/16/24 09:44	SMC	EET MID

Client Sample ID: BH-12(2')

Lab Sample ID: 880-39353-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 21:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73963	02/22/24 21:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73538	02/18/24 15:26	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73298	02/15/24 17:16	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 15:26	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/16/24 09:49	SMC	EET MID

Client Sample ID: BH-12(3')

Lab Sample ID: 880-39353-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/22/24 22:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73963	02/22/24 22:17	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73538	02/18/24 15:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	73298	02/15/24 17:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 15:49	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/16/24 09:54	SMC	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: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39353-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39353-1	BH-12(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39353-2	BH-12(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39353-3	BH-12(3')	Solid	02/12/24 00:00	02/13/24 16:03

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Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

2/23/2024

880-39353 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City State ZIP	Midland TX 79701	City State ZIP	Houston TX 77024
Phone	Email		icastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

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		

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-12 (0-1')	2/12/2024		X		G	1	X	X	X	
BH-12 (2')	2/12/2024		X		G	1	X	X	X	
BH-12 (3')	2/12/2024		X		G	1	X	X	X	

Preservative Codes

None NO DI Water H_2O

Cool Cool MeOH Me

HCL HC HNO_3 HN

H_2S0_4 H_2 NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

Na_2S_2O- $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		5:13 24
			4.13

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39353-1
SDG Number: Lea County,New Mexico

Login Number: 39353
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/23/2024 5:19:05 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County, New Mexico

JOB NUMBER

880-39337-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
2/23/2024 5:19:05 PM

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39337-1
SDG: Lea County, New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39337-1

Job ID: 880-39337-1 Eurofins Midland

Job Narrative
880-39337-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-13 (0-1') (880-39337-1), BH-13 (2') (880-39337-2), BH-13 (3') (880-39337-3), BH-13 (4') (880-39337-4), BH-13 (5') (880-39337-5) and BH-13 (6') (880-39337-6).

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73083 and analytical batch 880-73402 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-39246-A-41-E MS) and (880-39246-A-41-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73083 and analytical batch 880-73402 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike duplicate (MSD) recoveries for preparation batch 880-73117 and analytical batch 880-73231 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Client Sample ID: BH-13 (0-1')

Lab Sample ID: 880-39337-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/21/24 11:59	02/22/24 17:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/21/24 11:59	02/22/24 17:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/21/24 11:59	02/22/24 17:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/21/24 11:59	02/22/24 17:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/21/24 11:59	02/22/24 17:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/21/24 11:59	02/22/24 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:40*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:40*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 17:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/17/24 16:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/14/24 15:40	02/17/24 16:20	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/14/24 15:40	02/17/24 16:20	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/14/24 15:40	02/17/24 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/14/24 15:40*	*02/17/24 16:20*	*1*
o-Terphenyl	*99*		*70 - 130*	*02/14/24 15:40*	*02/17/24 16:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**233**	**F1**	4.96		mg/Kg			02/15/24 11:45	1

Client Sample ID: BH-13 (2')

Lab Sample ID: 880-39337-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/21/24 11:59	02/22/24 18:01	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/21/24 11:59	02/22/24 18:01	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/21/24 11:59	02/22/24 18:01	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/21/24 11:59	02/22/24 18:01	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/21/24 11:59	02/22/24 18:01	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/21/24 11:59	02/22/24 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*02/21/24 11:59*	*02/22/24 18:01*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*02/21/24 11:59*	*02/22/24 18:01*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Client Sample ID: BH-13 (2')

Lab Sample ID: 880-39337-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/22/24 18:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/17/24 16:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/14/24 15:40	02/17/24 16:43	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/14/24 15:40	02/17/24 16:43	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/14/24 15:40	02/17/24 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*02/14/24 15:40*	*02/17/24 16:43*	*1*
o-Terphenyl	*93*		*70 - 130*	*02/14/24 15:40*	*02/17/24 16:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**337**		4.98		mg/Kg			02/15/24 11:59	1

Client Sample ID: BH-13 (3')

Lab Sample ID: 880-39337-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/21/24 11:59	02/22/24 18:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/21/24 11:59	02/22/24 18:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/21/24 11:59	02/22/24 18:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/21/24 11:59	02/22/24 18:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/21/24 11:59	02/22/24 18:22	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/21/24 11:59	02/22/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/21/24 11:59*	*02/22/24 18:22*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/21/24 11:59*	*02/22/24 18:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/22/24 18:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/17/24 17:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/14/24 15:40	02/17/24 17:05	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/14/24 15:40	02/17/24 17:05	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Client Sample ID: BH-13 (3')

Lab Sample ID: 880-39337-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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)	<50.5	U	50.5		mg/Kg		02/14/24 15:40	02/17/24 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*02/14/24 15:40*	*02/17/24 17:05*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/14/24 15:40*	*02/17/24 17:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**232**		5.02		mg/Kg			02/15/24 12:04	1

Client Sample ID: BH-13 (4')

Lab Sample ID: 880-39337-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/21/24 11:59	02/22/24 18:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/21/24 11:59	02/22/24 18:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/21/24 11:59	02/22/24 18:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/21/24 11:59	02/22/24 18:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/21/24 11:59	02/22/24 18:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/21/24 11:59	02/22/24 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*02/21/24 11:59*	*02/22/24 18:43*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*02/21/24 11:59*	*02/22/24 18:43*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 18:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/17/24 17:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/14/24 15:40	02/17/24 17:27	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/14/24 15:40	02/17/24 17:27	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/14/24 15:40	02/17/24 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/14/24 15:40*	*02/17/24 17:27*	*1*
o-Terphenyl	*98*		*70 - 130*	*02/14/24 15:40*	*02/17/24 17:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**109**		4.95		mg/Kg			02/15/24 12:08	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Client Sample ID: BH-13 (5')

Lab Sample ID: 880-39337-5
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 19:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 19:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 19:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/21/24 11:59	02/22/24 19:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 19:04	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/21/24 11:59	02/22/24 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*02/21/24 11:59*	*02/22/24 19:04*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/21/24 11:59*	*02/22/24 19:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/22/24 19:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			02/17/24 17:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/14/24 15:40	02/17/24 17:50	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		02/14/24 15:40	02/17/24 17:50	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		02/14/24 15:40	02/17/24 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/14/24 15:40*	*02/17/24 17:50*	*1*
o-Terphenyl	*92*		*70 - 130*	*02/14/24 15:40*	*02/17/24 17:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**93.0**		4.97		mg/Kg			02/15/24 12:13	1

Client Sample ID: BH-13 (6')

Lab Sample ID: 880-39337-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/21/24 11:59	02/22/24 19:25	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/21/24 11:59	02/22/24 19:25	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/21/24 11:59	02/22/24 19:25	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/21/24 11:59	02/22/24 19:25	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/21/24 11:59	02/22/24 19:25	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/21/24 11:59	02/22/24 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/21/24 11:59*	*02/22/24 19:25*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/21/24 11:59*	*02/22/24 19:25*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Client Sample ID: BH-13 (6')

Lab Sample ID: 880-39337-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/22/24 19:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/17/24 18:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/14/24 15:40	02/17/24 18:12	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/14/24 15:40	02/17/24 18:12	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/14/24 15:40	02/17/24 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*02/14/24 15:40*	*02/17/24 18:12*	*1*
o-Terphenyl	*95*		*70 - 130*	*02/14/24 15:40*	*02/17/24 18:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		4.99		mg/Kg			02/15/24 12:27	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea 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)
880-39337-1	BH-13 (0-1')	90	108
880-39337-1 MS	BH-13 (0-1')	104	106
880-39337-1 MSD	BH-13 (0-1')	100	105
880-39337-2	BH-13 (2')	98	112
880-39337-3	BH-13 (3')	91	108
880-39337-4	BH-13 (4')	98	110
880-39337-5	BH-13 (5')	96	106
880-39337-6	BH-13 (6')	99	107
LCS 880-73775/1-A	Lab Control Sample	109	103
LCSD 880-73775/2-A	Lab Control Sample Dup	112	102
MB 880-73775/5-A	Method Blank	76	101

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)
880-39246-A-41-E MS	Matrix Spike	65 S1-	62 S1-
880-39246-A-41-F MSD	Matrix Spike Duplicate	74	69 S1-
880-39337-1	BH-13 (0-1')	95	99
880-39337-2	BH-13 (2')	91	93
880-39337-3	BH-13 (3')	94	97
880-39337-4	BH-13 (4')	95	98
880-39337-5	BH-13 (5')	87	92
880-39337-6	BH-13 (6')	89	95
LCS 880-73083/2-A	Lab Control Sample	84	86
LCSD 880-73083/3-A	Lab Control Sample Dup	96	98
MB 880-73083/1-A	Method Blank	187 S1+	207 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73775/5-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73775

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/21/24 11:59	02/22/24 17:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/21/24 11:59	02/22/24 17:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*02/21/24 11:59*	*02/22/24 17:18*	*1*

Lab Sample ID: LCS 880-73775/1-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73775

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1052		mg/Kg		105	70 - 130		
Toluene			0.100	0.09334		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.09457		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1900		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.09655		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-73775/2-A
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73775

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1102		mg/Kg		110	70 - 130	5	35
Toluene			0.100	0.09809		mg/Kg		98	70 - 130	5	35
Ethylbenzene			0.100	0.09942		mg/Kg		99	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2000		mg/Kg		100	70 - 130	5	35
o-Xylene			0.100	0.1016		mg/Kg		102	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-39337-1 MS
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: BH-13 (0-1')
Prep Type: Total/NA
Prep Batch: 73775

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.101	0.1176		mg/Kg		117	70 - 130		
Toluene	<0.00199	U	0.101	0.09377		mg/Kg		92	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39337-1 MS
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: BH-13 (0-1')
Prep Type: Total/NA
Prep Batch: 73775

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.101	0.08965		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1735		mg/Kg		86	70 - 130
o-Xylene	<0.00199	U	0.101	0.08738		mg/Kg		87	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-39337-1 MSD
Matrix: Solid
Analysis Batch: 73859

Client Sample ID: BH-13 (0-1')
Prep Type: Total/NA
Prep Batch: 73775

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.1105		mg/Kg		110	70 - 130	6	35
Toluene	<0.00199	U	0.100	0.08923		mg/Kg		89	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.100	0.08488		mg/Kg		85	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1643		mg/Kg		82	70 - 130	5	35
o-Xylene	<0.00199	U	0.100	0.08292		mg/Kg		83	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-73083/1-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73083

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/13/24 16:07	02/17/24 07:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/13/24 16:07	02/17/24 07:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/13/24 16:07	02/17/24 07:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*187*	*S1+*	*70 - 130*	*02/13/24 16:07*	*02/17/24 07:48*	*1*
o-Terphenyl	*207*	*S1+*	*70 - 130*	*02/13/24 16:07*	*02/17/24 07:48*	*1*

Lab Sample ID: LCS 880-73083/2-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73083

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	949.2		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	1000	817.1		mg/Kg		82	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

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

Lab Sample ID: LCS 880-73083/2-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73083

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: LCSD 880-73083/3-A
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73083

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	803.6		mg/Kg		80	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	837.6		mg/Kg		84	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 880-39246-A-41-E MS
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73083

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1010	991.8		mg/Kg		94	70 - 130
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1010	615.0	F1	mg/Kg		58	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	65	S1-	70 - 130
o-Terphenyl	62	S1-	70 - 130

Lab Sample ID: 880-39246-A-41-F MSD
Matrix: Solid
Analysis Batch: 73402

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73083

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	<49.6	U	1010	1107		mg/Kg		106	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1010	693.0	F1	mg/Kg		66	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	74		70 - 130
o-Terphenyl	69	S1-	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73117/1-A
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 11:31	1

Lab Sample ID: LCS 880-73117/2-A
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-73117/3-A
Matrix: Solid
Analysis Batch: 73231

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	235.8		mg/Kg		94	90 - 110	1	20

Lab Sample ID: 880-39337-1 MS
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: BH-13 (0-1')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	233	F1	248	456.2		mg/Kg		90	90 - 110		

Lab Sample ID: 880-39337-1 MSD
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: BH-13 (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	233	F1	248	451.0	F1	mg/Kg		88	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

GC VOA

Prep Batch: 73775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39337-1	BH-13 (0-1')	Total/NA	Solid	5035	
880-39337-2	BH-13 (2')	Total/NA	Solid	5035	
880-39337-3	BH-13 (3')	Total/NA	Solid	5035	
880-39337-4	BH-13 (4')	Total/NA	Solid	5035	
880-39337-5	BH-13 (5')	Total/NA	Solid	5035	
880-39337-6	BH-13 (6')	Total/NA	Solid	5035	
MB 880-73775/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73775/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73775/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39337-1 MS	BH-13 (0-1')	Total/NA	Solid	5035	
880-39337-1 MSD	BH-13 (0-1')	Total/NA	Solid	5035	

Analysis Batch: 73859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39337-1	BH-13 (0-1')	Total/NA	Solid	8021B	73775
880-39337-2	BH-13 (2')	Total/NA	Solid	8021B	73775
880-39337-3	BH-13 (3')	Total/NA	Solid	8021B	73775
880-39337-4	BH-13 (4')	Total/NA	Solid	8021B	73775
880-39337-5	BH-13 (5')	Total/NA	Solid	8021B	73775
880-39337-6	BH-13 (6')	Total/NA	Solid	8021B	73775
MB 880-73775/5-A	Method Blank	Total/NA	Solid	8021B	73775
LCS 880-73775/1-A	Lab Control Sample	Total/NA	Solid	8021B	73775
LCSD 880-73775/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73775
880-39337-1 MS	BH-13 (0-1')	Total/NA	Solid	8021B	73775
880-39337-1 MSD	BH-13 (0-1')	Total/NA	Solid	8021B	73775

Analysis Batch: 73952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39337-1	BH-13 (0-1')	Total/NA	Solid	Total BTEX	
880-39337-2	BH-13 (2')	Total/NA	Solid	Total BTEX	
880-39337-3	BH-13 (3')	Total/NA	Solid	Total BTEX	
880-39337-4	BH-13 (4')	Total/NA	Solid	Total BTEX	
880-39337-5	BH-13 (5')	Total/NA	Solid	Total BTEX	
880-39337-6	BH-13 (6')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39337-1	BH-13 (0-1')	Total/NA	Solid	8015NM Prep	
880-39337-2	BH-13 (2')	Total/NA	Solid	8015NM Prep	
880-39337-3	BH-13 (3')	Total/NA	Solid	8015NM Prep	
880-39337-4	BH-13 (4')	Total/NA	Solid	8015NM Prep	
880-39337-5	BH-13 (5')	Total/NA	Solid	8015NM Prep	
880-39337-6	BH-13 (6')	Total/NA	Solid	8015NM Prep	
MB 880-73083/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73083/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73083/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39246-A-41-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39246-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

GC Semi VOA

Analysis Batch: 73402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39337-1	BH-13 (0-1')	Total/NA	Solid	8015B NM	73083
880-39337-2	BH-13 (2')	Total/NA	Solid	8015B NM	73083
880-39337-3	BH-13 (3')	Total/NA	Solid	8015B NM	73083
880-39337-4	BH-13 (4')	Total/NA	Solid	8015B NM	73083
880-39337-5	BH-13 (5')	Total/NA	Solid	8015B NM	73083
880-39337-6	BH-13 (6')	Total/NA	Solid	8015B NM	73083
MB 880-73083/1-A	Method Blank	Total/NA	Solid	8015B NM	73083
LCS 880-73083/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73083
LCSD 880-73083/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73083
880-39246-A-41-E MS	Matrix Spike	Total/NA	Solid	8015B NM	73083
880-39246-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73083

Analysis Batch: 73549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39337-1	BH-13 (0-1')	Total/NA	Solid	8015 NM	
880-39337-2	BH-13 (2')	Total/NA	Solid	8015 NM	
880-39337-3	BH-13 (3')	Total/NA	Solid	8015 NM	
880-39337-4	BH-13 (4')	Total/NA	Solid	8015 NM	
880-39337-5	BH-13 (5')	Total/NA	Solid	8015 NM	
880-39337-6	BH-13 (6')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39337-1	BH-13 (0-1')	Soluble	Solid	DI Leach	
880-39337-2	BH-13 (2')	Soluble	Solid	DI Leach	
880-39337-3	BH-13 (3')	Soluble	Solid	DI Leach	
880-39337-4	BH-13 (4')	Soluble	Solid	DI Leach	
880-39337-5	BH-13 (5')	Soluble	Solid	DI Leach	
880-39337-6	BH-13 (6')	Soluble	Solid	DI Leach	
MB 880-73117/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73117/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73117/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39337-1 MS	BH-13 (0-1')	Soluble	Solid	DI Leach	
880-39337-1 MSD	BH-13 (0-1')	Soluble	Solid	DI Leach	

Analysis Batch: 73231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39337-1	BH-13 (0-1')	Soluble	Solid	300.0	73117
880-39337-2	BH-13 (2')	Soluble	Solid	300.0	73117
880-39337-3	BH-13 (3')	Soluble	Solid	300.0	73117
880-39337-4	BH-13 (4')	Soluble	Solid	300.0	73117
880-39337-5	BH-13 (5')	Soluble	Solid	300.0	73117
880-39337-6	BH-13 (6')	Soluble	Solid	300.0	73117
MB 880-73117/1-A	Method Blank	Soluble	Solid	300.0	73117
LCS 880-73117/2-A	Lab Control Sample	Soluble	Solid	300.0	73117
LCSD 880-73117/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73117
880-39337-1 MS	BH-13 (0-1')	Soluble	Solid	300.0	73117
880-39337-1 MSD	BH-13 (0-1')	Soluble	Solid	300.0	73117

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Client Sample ID: BH-13 (0-1')

Lab Sample ID: 880-39337-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73775	02/21/24 11:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/22/24 17:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73952	02/22/24 17:40	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73549	02/17/24 16:20	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73083	02/14/24 15:40	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 16:20	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 11:45	SMC	EET MID

Client Sample ID: BH-13 (2')

Lab Sample ID: 880-39337-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73775	02/21/24 11:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/22/24 18:01	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73952	02/22/24 18:01	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73549	02/17/24 16:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	73083	02/14/24 15:40	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 16:43	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 11:59	SMC	EET MID

Client Sample ID: BH-13 (3')

Lab Sample ID: 880-39337-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73775	02/21/24 11:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/22/24 18:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73952	02/22/24 18:22	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73549	02/17/24 17:05	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	73083	02/14/24 15:40	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 17:05	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:04	SMC	EET MID

Client Sample ID: BH-13 (4')

Lab Sample ID: 880-39337-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73775	02/21/24 11:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/22/24 18:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73952	02/22/24 18:43	AJ	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Client Sample ID: BH-13 (4')

Lab Sample ID: 880-39337-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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			73549	02/17/24 17:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73083	02/14/24 15:40	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 17:27	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:08	SMC	EET MID

Client Sample ID: BH-13 (5')

Lab Sample ID: 880-39337-5
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73775	02/21/24 11:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/22/24 19:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73952	02/22/24 19:04	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73549	02/17/24 17:50	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73083	02/14/24 15:40	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 17:50	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:13	SMC	EET MID

Client Sample ID: BH-13 (6')

Lab Sample ID: 880-39337-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73775	02/21/24 11:59	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73859	02/22/24 19:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73952	02/22/24 19:25	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73549	02/17/24 18:12	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73083	02/14/24 15:40	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73402	02/17/24 18:12	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:27	SMC	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: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39337-1
SDG: Lea County, New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39337-1	BH-13 (0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39337-2	BH-13 (2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39337-3	BH-13 (3')	Solid	02/12/24 00:00	02/13/24 16:03
880-39337-4	BH-13 (4')	Solid	02/12/24 00:00	02/13/24 16:03
880-39337-5	BH-13 (5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39337-6	BH-13 (6')	Solid	02/12/24 00:00	02/13/24 16:03

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2/23/2024

880-39337 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to. (if different)	Isaac Castro
Company Name:	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone	Email	icastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT			
Temp Blank	Yes (No)	Wet Ice	Yes No
Received Intact:	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1.0
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6
Total Containers		Corrected Temperature	25

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	Pres. Code	Parameters: BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold	Sample Comments
BH-13 (0-1')	2/12/2024		X		G	1		X	X	X		
BH-13 (2')	2/12/2024		X		G	1		X	X	X		
BH-13 (3')	2/12/2024		X		G	1		X	X	X		
BH-13 (4')	2/12/2024		X		G	1		X	X	X		
BH-13 (5')	2/12/2024		X		G	1		X	X	X		
BH-13 (6')	2/12/2024		X		G	1		X	X	X		

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13 24
			4.02

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39337-1
SDG Number: Lea County, New Mexico

Login Number: 39337
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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39355-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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my EOL

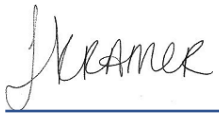
Eurofins Midland

Job Notes

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

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

Authorization



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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39355-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39355-1

Job ID: 880-39355-1 Eurofins Midland

Job Narrative
880-39355-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-14(0-1') (880-39355-1), BH-14(2') (880-39355-2) and BH-14(3') (880-39355-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-14(2') (880-39355-2), (LCS 880-73289/1-A) and (880-39351-A-2-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73289 and analytical batch 880-73858 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73298 and analytical batch 880-73414 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-73298 and analytical batch 880-73414 was outside control limits. Sample non-homogeneity is suspected.

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: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Client Sample ID: BH-14(0-1')

Lab Sample ID: 880-39355-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 00:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 00:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 00:31	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/15/24 15:58	02/23/24 00:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 00:31	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/15/24 15:58	02/23/24 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*02/15/24 15:58*	*02/23/24 00:31*	*1*
1,4-Difluorobenzene (Surr)	*127*		*70 - 130*	*02/15/24 15:58*	*02/23/24 00:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/23/24 00:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**120**		50.4		mg/Kg			02/18/24 16:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:21	02/18/24 16:11	1
Diesel Range Organics (Over C10-C28)	**120**		50.4		mg/Kg		02/15/24 17:21	02/18/24 16:11	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:21	02/18/24 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/15/24 17:21*	*02/18/24 16:11*	*1*
o-Terphenyl	*81*		*70 - 130*	*02/15/24 17:21*	*02/18/24 16:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**557**		5.02		mg/Kg			02/16/24 09:58	1

Client Sample ID: BH-14(2')

Lab Sample ID: 880-39355-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 00:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 00:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 00:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:58	02/23/24 00:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 00:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:58	02/23/24 00:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/23/24 00:57*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:58*	*02/23/24 00:57*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Client Sample ID: BH-14(2')

Lab Sample ID: 880-39355-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/23/24 00:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/18/24 16:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:21	02/18/24 16:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:21	02/18/24 16:34	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:21	02/18/24 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*02/15/24 17:21*	*02/18/24 16:34*	*1*
o-Terphenyl	*92*		*70 - 130*	*02/15/24 17:21*	*02/18/24 16:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**203**		4.99		mg/Kg			02/16/24 10:03	1

Client Sample ID: BH-14(3')

Lab Sample ID: 880-39355-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 01:24	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 01:24	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 01:24	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:58	02/23/24 01:24	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 01:24	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:58	02/23/24 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/15/24 15:58*	*02/23/24 01:24*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*02/15/24 15:58*	*02/23/24 01:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/23/24 01:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/18/24 16:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:22	02/18/24 16:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:22	02/18/24 16:57	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Client Sample ID: BH-14(3')
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39355-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:22	02/18/24 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*02/15/24 17:22*	*02/18/24 16:57*	*1*
o-Terphenyl	*88*		*70 - 130*	*02/15/24 17:22*	*02/18/24 16:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**67.6**		5.04		mg/Kg			02/17/24 00:09	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39351-A-2-F MS	Matrix Spike	126	138 S1+
880-39351-A-2-G MSD	Matrix Spike Duplicate	101	114
880-39355-1	BH-14(0-1')	96	127
880-39355-2	BH-14(2')	144 S1+	107
880-39355-3	BH-14(3')	113	114
LCS 880-73289/1-A	Lab Control Sample	136 S1+	142 S1+
LCSD 880-73289/2-A	Lab Control Sample Dup	111	114
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39355-1	BH-14(0-1')	98	81
880-39355-2	BH-14(2')	113	92
880-39355-3	BH-14(3')	108	88
890-6117-A-1-I MS	Matrix Spike	100	73
890-6117-A-1-J MSD	Matrix Spike Duplicate	126	93
LCS 880-73298/2-A	Lab Control Sample	94	97
LCSD 880-73298/3-A	Lab Control Sample Dup	97	96
MB 880-73298/1-A	Method Blank	207 S1+	179 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73289/5-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*

Lab Sample ID: LCS 880-73289/1-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09374		mg/Kg		94	70 - 130
Toluene	0.100	0.09940		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2090		mg/Kg		105	70 - 130
o-Xylene	0.100	0.09283		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*142*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-73289/2-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09160		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09885		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.09688		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2111		mg/Kg		106	70 - 130	1	35
o-Xylene	0.100	0.09978		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-39351-A-2-F MS
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.100	0.1199		mg/Kg		120	70 - 130
Toluene	<0.00198	U	0.100	0.1156		mg/Kg		115	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39351-A-2-F MS
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.100	0.1311	F1	mg/Kg		131	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2532		mg/Kg		126	70 - 130
o-Xylene	<0.00198	U	0.100	0.1217		mg/Kg		121	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*138*	*S1+*	*70 - 130*

Lab Sample ID: 880-39351-A-2-G MSD
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.1212		mg/Kg		120	70 - 130	1	35
Toluene	<0.00198	U	0.101	0.1102		mg/Kg		110	70 - 130	5	35
Ethylbenzene	<0.00198	U F1	0.101	0.1156		mg/Kg		115	70 - 130	13	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2450		mg/Kg		122	70 - 130	3	35
o-Xylene	<0.00198	U	0.101	0.1198		mg/Kg		119	70 - 130	2	35

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

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

Lab Sample ID: MB 880-73298/1-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:16	02/18/24 07:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*207*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*
o-Terphenyl	*179*	*S1+*	*70 - 130*	*02/15/24 17:16*	*02/18/24 07:38*	*1*

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	842.3		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	870.2		mg/Kg		87	70 - 130

Eurofins Midland

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-73298/3-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73298

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	873.1		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	828.5		mg/Kg		83	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-6117-A-1-I MS
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73298

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	994	1185		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	895.0		mg/Kg		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	73		70 - 130

Lab Sample ID: 890-6117-A-1-J MSD
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73298

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	994	1136		mg/Kg		111	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	1160	F2	mg/Kg		114	70 - 130	26	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	93		70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73142/1-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 19:34	1

Lab Sample ID: LCS 880-73142/2-A
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	230.6		mg/Kg		92	90 - 110

Lab Sample ID: LCSD 880-73142/3-A
Matrix: Solid
Analysis Batch: 73273

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	232.3		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-39351-A-2-B MS
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	59.2		252	289.8		mg/Kg		92	90 - 110

Lab Sample ID: 880-39351-A-2-C MSD
Matrix: Solid
Analysis Batch: 73273

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	59.2		252	291.6		mg/Kg		92	90 - 110	1	20

Lab Sample ID: MB 880-73143/1-A
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/16/24 23:49	1

Lab Sample ID: LCS 880-73143/2-A
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	247.4		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-73143/3-A
Matrix: Solid
Analysis Batch: 73274

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	248.4		mg/Kg		99	90 - 110	0	20

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-39355-3 MS
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: BH-14(3')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	67.6		252	323.5		mg/Kg		102	90 - 110		

Lab Sample ID: 880-39355-3 MSD
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: BH-14(3')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	67.6		252	324.4		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-1	BH-14(0-1')	Total/NA	Solid	5035	
880-39355-2	BH-14(2')	Total/NA	Solid	5035	
880-39355-3	BH-14(3')	Total/NA	Solid	5035	
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	5035	
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-1	BH-14(0-1')	Total/NA	Solid	8021B	73289
880-39355-2	BH-14(2')	Total/NA	Solid	8021B	73289
880-39355-3	BH-14(3')	Total/NA	Solid	8021B	73289
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	8021B	73289
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73289
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	8021B	73289
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73289

Analysis Batch: 73964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-1	BH-14(0-1')	Total/NA	Solid	Total BTEX	
880-39355-2	BH-14(2')	Total/NA	Solid	Total BTEX	
880-39355-3	BH-14(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-1	BH-14(0-1')	Total/NA	Solid	8015NM Prep	
880-39355-2	BH-14(2')	Total/NA	Solid	8015NM Prep	
880-39355-3	BH-14(3')	Total/NA	Solid	8015NM Prep	
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-1	BH-14(0-1')	Total/NA	Solid	8015B NM	73298
880-39355-2	BH-14(2')	Total/NA	Solid	8015B NM	73298
880-39355-3	BH-14(3')	Total/NA	Solid	8015B NM	73298
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015B NM	73298
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73298
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73298
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	73298
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73298

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

GC Semi VOA

Analysis Batch: 73539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-1	BH-14(0-1')	Total/NA	Solid	8015 NM	
880-39355-2	BH-14(2')	Total/NA	Solid	8015 NM	
880-39355-3	BH-14(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-1	BH-14(0-1')	Soluble	Solid	DI Leach	
880-39355-2	BH-14(2')	Soluble	Solid	DI Leach	
MB 880-73142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39351-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39351-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 73143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-3	BH-14(3')	Soluble	Solid	DI Leach	
MB 880-73143/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73143/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73143/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39355-3 MS	BH-14(3')	Soluble	Solid	DI Leach	
880-39355-3 MSD	BH-14(3')	Soluble	Solid	DI Leach	

Analysis Batch: 73273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-1	BH-14(0-1')	Soluble	Solid	300.0	73142
880-39355-2	BH-14(2')	Soluble	Solid	300.0	73142
MB 880-73142/1-A	Method Blank	Soluble	Solid	300.0	73142
LCS 880-73142/2-A	Lab Control Sample	Soluble	Solid	300.0	73142
LCSD 880-73142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73142
880-39351-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	73142
880-39351-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73142

Analysis Batch: 73274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39355-3	BH-14(3')	Soluble	Solid	300.0	73143
MB 880-73143/1-A	Method Blank	Soluble	Solid	300.0	73143
LCS 880-73143/2-A	Lab Control Sample	Soluble	Solid	300.0	73143
LCSD 880-73143/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73143
880-39355-3 MS	BH-14(3')	Soluble	Solid	300.0	73143
880-39355-3 MSD	BH-14(3')	Soluble	Solid	300.0	73143

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Client Sample ID: BH-14(0-1')

Lab Sample ID: 880-39355-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 00:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73964	02/23/24 00:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73539	02/18/24 16:11	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	73298	02/15/24 17:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 16:11	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/16/24 09:58	SMC	EET MID

Client Sample ID: BH-14(2')

Lab Sample ID: 880-39355-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 00:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73964	02/23/24 00:57	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73539	02/18/24 16:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73298	02/15/24 17:21	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 16:34	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73142	02/14/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73273	02/16/24 10:03	SMC	EET MID

Client Sample ID: BH-14(3')

Lab Sample ID: 880-39355-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 01:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73964	02/23/24 01:24	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73539	02/18/24 16:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73298	02/15/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 16:57	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73143	02/14/24 11:37	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73274	02/17/24 00:09	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39355-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39355-1	BH-14(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39355-2	BH-14(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39355-3	BH-14(3')	Solid	02/12/24 00:00	02/13/24 16:03

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Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

2/23/2024

880-39355 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone		Email	icastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County, New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT				
Temp Blank	Yes No	Wet Ice	Yes No	
Received Intact:	Yes No	Thermometer ID	IR8	
Cooler Custody Seals	Yes No N/A	Correction Factor	-1.0	
Sample Custody Seals	Yes No N/A	Temperature Reading	2.6	
Total Containers		Corrected Temperature	2.5	

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	Pres. Code	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold	Sample Comments
BH-14 (0-1')	2/12/2024		X		G	1		X	X	X		
BH-14 (2')	2/12/2024		X		G	1		X	X	X		
BH-14 (3')	2/12/2024		X		G	1		X	X	X		

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources.com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		021324
			403

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39355-1
SDG Number: Lea County,New Mexico

Login Number: 39355
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39358-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

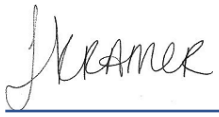
Eurofins Midland

Job Notes

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

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

Authorization



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2/23/2024 5:29:01 PM

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39358-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Nighthawk State Com #003H

Job ID: 880-39358-1

Job ID: 880-39358-1 Eurofins Midland

Job Narrative
880-39358-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-15(0-1') (880-39358-1), BH-15(2') (880-39358-2) and BH-15(3') (880-39358-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: BH-15(2') (880-39358-2), BH-15(3') (880-39358-3), (LCS 880-73289/1-A) and (880-39351-A-2-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73289 and analytical batch 880-73858 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73297 and analytical batch 880-73423 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH-15(2') (880-39358-2), BH-15(3') (880-39358-3), (880-39450-A-1-E), (880-39450-A-1-F MS) and (880-39450-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73297 and analytical batch 880-73423 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
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: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Client Sample ID: BH-15(0-1')

Lab Sample ID: 880-39358-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 01:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 01:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 01:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/23/24 01:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 01:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/23/24 01:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/15/24 15:58*	*02/23/24 01:51*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*02/15/24 15:58*	*02/23/24 01:51*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/23/24 01:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/19/24 17:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:12	02/19/24 17:12	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:12	02/19/24 17:12	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:12	02/19/24 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/15/24 17:12*	*02/19/24 17:12*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/15/24 17:12*	*02/19/24 17:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**192**		4.95		mg/Kg			02/17/24 00:30	1

Client Sample ID: BH-15(2')

Lab Sample ID: 880-39358-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 02:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 02:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 02:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/23/24 02:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/23/24 02:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/23/24 02:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*02/15/24 15:58*	*02/23/24 02:17*	*1*
1,4-Difluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/23/24 02:17*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Client Sample ID: BH-15(2')

Lab Sample ID: 880-39358-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/23/24 02:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/19/24 17:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:12	02/19/24 17:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:12	02/19/24 17:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:12	02/19/24 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*45*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 17:35*	*1*
o-Terphenyl	*38*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 17:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**114**		4.97		mg/Kg			02/17/24 00:37	1

Client Sample ID: BH-15(3')

Lab Sample ID: 880-39358-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/23/24 02:44	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/23/24 02:44	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/23/24 02:44	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/15/24 15:58	02/23/24 02:44	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/23/24 02:44	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/15/24 15:58	02/23/24 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/23/24 02:44*	*1*
1,4-Difluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/23/24 02:44*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/23/24 02:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/19/24 17:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:12	02/19/24 17:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:12	02/19/24 17:58	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Client Sample ID: BH-15(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39358-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:12	02/19/24 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*39*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 17:58*	*1*
o-Terphenyl	*32*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 17:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**138**		4.97		mg/Kg			02/17/24 00:43	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-39351-A-2-F MS	Matrix Spike	126	138 S1+										
880-39351-A-2-G MSD	Matrix Spike Duplicate	101	114										
880-39358-1	BH-15(0-1')	99	84										
880-39358-2	BH-15(2')	127	136 S1+										
880-39358-3	BH-15(3')	131 S1+	144 S1+										
LCS 880-73289/1-A	Lab Control Sample	136 S1+	142 S1+										
LCSD 880-73289/2-A	Lab Control Sample Dup	111	114										
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-39358-1	BH-15(0-1')	70	70										
880-39358-2	BH-15(2')	45 S1-	38 S1-										
880-39358-3	BH-15(3')	39 S1-	32 S1-										
880-39450-A-1-F MS	Matrix Spike	29 S1-	21 S1-										
880-39450-A-1-G MSD	Matrix Spike Duplicate	21 S1-	10 S1-										
LCS 880-73297/2-A	Lab Control Sample	102	105										
LCSD 880-73297/3-A	Lab Control Sample Dup	111	113										
MB 880-73297/1-A	Method Blank	119	137 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73289/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*

Lab Sample ID: LCS 880-73289/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09374		mg/Kg		94	70 - 130
Toluene	0.100	0.09940		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2090		mg/Kg		105	70 - 130
o-Xylene	0.100	0.09283		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*142*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-73289/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09160		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09885		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.09688		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2111		mg/Kg		106	70 - 130	1	35
o-Xylene	0.100	0.09978		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-39351-A-2-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.100	0.1199		mg/Kg		120	70 - 130
Toluene	<0.00198	U	0.100	0.1156		mg/Kg		115	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39351-A-2-F MS
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.100	0.1311	F1	mg/Kg		131	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2532		mg/Kg		126	70 - 130
o-Xylene	<0.00198	U	0.100	0.1217		mg/Kg		121	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*138*	*S1+*	*70 - 130*

Lab Sample ID: 880-39351-A-2-G MSD
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.1212		mg/Kg		120	70 - 130	1	35
Toluene	<0.00198	U	0.101	0.1102		mg/Kg		110	70 - 130	5	35
Ethylbenzene	<0.00198	U F1	0.101	0.1156		mg/Kg		115	70 - 130	13	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2450		mg/Kg		122	70 - 130	3	35
o-Xylene	<0.00198	U	0.101	0.1198		mg/Kg		119	70 - 130	2	35

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

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

Lab Sample ID: MB 880-73297/1-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:12	02/19/24 07:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:12	02/19/24 07:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:12	02/19/24 07:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*02/15/24 17:12*	*02/19/24 07:51*	*1*
o-Terphenyl	*137*	*S1+*	*70 - 130*	*02/15/24 17:12*	*02/19/24 07:51*	*1*

Lab Sample ID: LCS 880-73297/2-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1045		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1002		mg/Kg		100	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73297/2-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73297

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: LCSD 880-73297/3-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73297

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1084		mg/Kg		108	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1050		mg/Kg		105	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-39450-A-1-F MS
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.5	U F1	1010	288.0	F1	mg/Kg		26	70 - 130
Diesel Range Organics (Over C10-C28)	<49.5	U F1 F2	1010	210.6	F1	mg/Kg		17	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	29	S1-	70 - 130
o-Terphenyl	21	S1-	70 - 130

Lab Sample ID: 880-39450-A-1-G MSD
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73297

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	<49.5	U F1	1010	241.0	F1	mg/Kg		21	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<49.5	U F1 F2	1010	119.2	F1 F2	mg/Kg		8	70 - 130	55	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	21	S1-	70 - 130
o-Terphenyl	10	S1-	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73143/1-A
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/16/24 23:49	1

Lab Sample ID: LCS 880-73143/2-A
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.4		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-73143/3-A
Matrix: Solid
Analysis Batch: 73274

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	248.4		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-39355-A-3-B MS
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	67.6		252	323.5		mg/Kg		102	90 - 110		

Lab Sample ID: 880-39355-A-3-C MSD
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	67.6		252	324.4		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39358-1	BH-15(0-1')	Total/NA	Solid	5035	
880-39358-2	BH-15(2')	Total/NA	Solid	5035	
880-39358-3	BH-15(3')	Total/NA	Solid	5035	
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	5035	
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39358-1	BH-15(0-1')	Total/NA	Solid	8021B	73289
880-39358-2	BH-15(2')	Total/NA	Solid	8021B	73289
880-39358-3	BH-15(3')	Total/NA	Solid	8021B	73289
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	8021B	73289
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73289
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	8021B	73289
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73289

Analysis Batch: 73965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39358-1	BH-15(0-1')	Total/NA	Solid	Total BTEX	
880-39358-2	BH-15(2')	Total/NA	Solid	Total BTEX	
880-39358-3	BH-15(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39358-1	BH-15(0-1')	Total/NA	Solid	8015NM Prep	
880-39358-2	BH-15(2')	Total/NA	Solid	8015NM Prep	
880-39358-3	BH-15(3')	Total/NA	Solid	8015NM Prep	
MB 880-73297/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73297/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73297/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39450-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39450-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39358-1	BH-15(0-1')	Total/NA	Solid	8015B NM	73297
880-39358-2	BH-15(2')	Total/NA	Solid	8015B NM	73297
880-39358-3	BH-15(3')	Total/NA	Solid	8015B NM	73297
MB 880-73297/1-A	Method Blank	Total/NA	Solid	8015B NM	73297
LCS 880-73297/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73297
LCSD 880-73297/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73297
880-39450-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	73297
880-39450-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73297

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

GC Semi VOA

Analysis Batch: 73643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39358-1	BH-15(0-1')	Total/NA	Solid	8015 NM	
880-39358-2	BH-15(2')	Total/NA	Solid	8015 NM	
880-39358-3	BH-15(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39358-1	BH-15(0-1')	Soluble	Solid	DI Leach	
880-39358-2	BH-15(2')	Soluble	Solid	DI Leach	
880-39358-3	BH-15(3')	Soluble	Solid	DI Leach	
MB 880-73143/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73143/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73143/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39355-A-3-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39355-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39358-1	BH-15(0-1')	Soluble	Solid	300.0	73143
880-39358-2	BH-15(2')	Soluble	Solid	300.0	73143
880-39358-3	BH-15(3')	Soluble	Solid	300.0	73143
MB 880-73143/1-A	Method Blank	Soluble	Solid	300.0	73143
LCS 880-73143/2-A	Lab Control Sample	Soluble	Solid	300.0	73143
LCSD 880-73143/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73143
880-39355-A-3-B MS	Matrix Spike	Soluble	Solid	300.0	73143
880-39355-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73143

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Client Sample ID: BH-15(0-1')

Lab Sample ID: 880-39358-1
Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 01:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73965	02/23/24 01:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73643	02/19/24 17:12	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73297	02/15/24 17:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 17:12	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73143	02/14/24 11:37	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73274	02/17/24 00:30	CH	EET MID

Client Sample ID: BH-15(2')

Lab Sample ID: 880-39358-2
Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 02:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73965	02/23/24 02:17	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73643	02/19/24 17:35	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73297	02/15/24 17:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 17:35	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73143	02/14/24 11:37	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73274	02/17/24 00:37	CH	EET MID

Client Sample ID: BH-15(3')

Lab Sample ID: 880-39358-3
Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 02:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73965	02/23/24 02:44	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73643	02/19/24 17:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73297	02/15/24 17:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 17:58	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73143	02/14/24 11:37	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73274	02/17/24 00:43	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: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39358-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39358-1	BH-15(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39358-2	BH-15(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39358-3	BH-15(3')	Solid	02/12/24 00:00	02/13/24 16:03

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2/23/2024

880-39358 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address.	990 Town and Country Blvd
City State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone		Email	icastro@marathonoil 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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine	☐ Rush
Project Location	Lea County, New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL.24 00354		

SAMPLE RECEIPT				
Temp Blank.	Yes (No)	Wet Ice	Yes No	
Received Intact:	(Yes) No	Thermometer ID	IR8	
Cooler Custody Seals	Yes No N/A	Correction Factor	-1.0	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.4	
Total Containers		Corrected Temperature	2.3	

ANALYSIS REQUEST

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold
BH-15 (0-1')	2/12/2024		X		G	1	X	X	X	
BH-15 (2')	2/12/2024		X		G	1	X	X	X	
BH-15 (3')	2/12/2024		X		G	1	X	X	X	

Preservative Codes

None NO — DI Water H_2O

Cool Cool — MeOH Me

HCL HC — HNO_3 HN

H_2S0_4 H_2 — NaOH Na

H_3PO_4 HP

$NaHSO_4$ NABIS

$Na_2S_2O_3$ $NaSO_3$

Zn Acetate+NaOH Zn

NaOH+Ascorbic Acid SAPC

Sample Comments

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13 24		2-13 24
			4:00

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39358-1
SDG Number: Lea County,New Mexico

Login Number: 39358
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County,New Mexico

JOB NUMBER

880-39360-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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my EOL

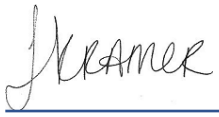
Eurofins Midland

Job Notes

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

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

Authorization



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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39360-1
SDG: Lea County,New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Qualifiers

GC VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: Nighthawk State Com #003H

Job ID: 880-39360-1

Job ID: 880-39360-1 Eurofins Midland

Job Narrative
880-39360-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-16(0-1') (880-39360-1), BH-16(2') (880-39360-2) and BH-16(3') (880-39360-3).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (LCS 880-73289/1-A) and (880-39351-A-2-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73289 and analytical batch 880-73858 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73297 and analytical batch 880-73423 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH-16(0-1') (880-39360-1), BH-16(2') (880-39360-2), BH-16(3') (880-39360-3), (880-39450-A-1-E), (880-39450-A-1-F MS) and (880-39450-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73297 and analytical batch 880-73423 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
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: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Client Sample ID: BH-16(0-1')

Lab Sample ID: 880-39360-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:58	02/23/24 03:10	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:58	02/23/24 03:10	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:58	02/23/24 03:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:58	02/23/24 03:10	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:58	02/23/24 03:10	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:58	02/23/24 03:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*02/15/24 15:58*	*02/23/24 03:10*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*02/15/24 15:58*	*02/23/24 03:10*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/23/24 03:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**62.0**		49.8		mg/Kg			02/19/24 18:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/15/24 17:12	02/19/24 18:22	1
Diesel Range Organics (Over C10-C28)	**62.0**		49.8		mg/Kg		02/15/24 17:12	02/19/24 18:22	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/15/24 17:12	02/19/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 18:22*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/15/24 17:12*	*02/19/24 18:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**782**		4.96		mg/Kg			02/17/24 00:50	1

Client Sample ID: BH-16(2')

Lab Sample ID: 880-39360-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/23/24 03:37	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/23/24 03:37	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/23/24 03:37	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:58	02/23/24 03:37	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:58	02/23/24 03:37	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:58	02/23/24 03:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/15/24 15:58*	*02/23/24 03:37*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*02/15/24 15:58*	*02/23/24 03:37*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Client Sample ID: BH-16(2')

Lab Sample ID: 880-39360-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/23/24 03:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			02/19/24 18:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/15/24 17:12	02/19/24 18:45	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		02/15/24 17:12	02/19/24 18:45	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		02/15/24 17:12	02/19/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*62*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 18:45*	*1*
o-Terphenyl	*61*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 18:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94.0**		4.97		mg/Kg			02/17/24 01:10	1

Client Sample ID: BH-16(3')

Lab Sample ID: 880-39360-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 04:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 04:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 04:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:58	02/23/24 04:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:58	02/23/24 04:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:58	02/23/24 04:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*02/15/24 15:58*	*02/23/24 04:03*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*02/15/24 15:58*	*02/23/24 04:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/23/24 04:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			02/19/24 19:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		02/15/24 17:12	02/19/24 19:08	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		02/15/24 17:12	02/19/24 19:08	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Client Sample ID: BH-16(3')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39360-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		02/15/24 17:12	02/19/24 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*59*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 19:08*	*1*
o-Terphenyl	*62*	*S1-*	*70 - 130*	*02/15/24 17:12*	*02/19/24 19:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52.3**		4.99		mg/Kg			02/17/24 01:17	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-39351-A-2-F MS	Matrix Spike	126	138 S1+										
880-39351-A-2-G MSD	Matrix Spike Duplicate	101	114										
880-39360-1	BH-16(0-1')	116	80										
880-39360-2	BH-16(2')	113	111										
880-39360-3	BH-16(3')	116	123										
LCS 880-73289/1-A	Lab Control Sample	136 S1+	142 S1+										
LCSD 880-73289/2-A	Lab Control Sample Dup	111	114										
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-39360-1	BH-16(0-1')	68 S1-	70										
880-39360-2	BH-16(2')	62 S1-	61 S1-										
880-39360-3	BH-16(3')	59 S1-	62 S1-										
880-39450-A-1-F MS	Matrix Spike	29 S1-	21 S1-										
880-39450-A-1-G MSD	Matrix Spike Duplicate	21 S1-	10 S1-										
LCS 880-73297/2-A	Lab Control Sample	102	105										
LCSD 880-73297/3-A	Lab Control Sample Dup	111	113										
MB 880-73297/1-A	Method Blank	119	137 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73289/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*

Lab Sample ID: LCS 880-73289/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09374		mg/Kg		94	70 - 130
Toluene	0.100	0.09940		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1018		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2090		mg/Kg		105	70 - 130
o-Xylene	0.100	0.09283		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*142*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-73289/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09160		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09885		mg/Kg		99	70 - 130	1	35
Ethylbenzene	0.100	0.09688		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2111		mg/Kg		106	70 - 130	1	35
o-Xylene	0.100	0.09978		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-39351-A-2-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73858 — **Prep Batch: 73289**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.100	0.1199		mg/Kg		120	70 - 130
Toluene	<0.00198	U	0.100	0.1156		mg/Kg		115	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

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

Lab Sample ID: 880-39351-A-2-F MS
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00198	U F1	0.100	0.1311	F1	mg/Kg		131	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2532		mg/Kg		126	70 - 130
o-Xylene	<0.00198	U	0.100	0.1217		mg/Kg		121	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*138*	*S1+*	*70 - 130*

Lab Sample ID: 880-39351-A-2-G MSD
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.1212		mg/Kg		120	70 - 130	1	35
Toluene	<0.00198	U	0.101	0.1102		mg/Kg		110	70 - 130	5	35
Ethylbenzene	<0.00198	U F1	0.101	0.1156		mg/Kg		115	70 - 130	13	35
m-Xylene & p-Xylene	<0.00396	U	0.201	0.2450		mg/Kg		122	70 - 130	3	35
o-Xylene	<0.00198	U	0.101	0.1198		mg/Kg		119	70 - 130	2	35

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

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

Lab Sample ID: MB 880-73297/1-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:12	02/19/24 07:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:12	02/19/24 07:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:12	02/19/24 07:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*02/15/24 17:12*	*02/19/24 07:51*	*1*
o-Terphenyl	*137*	*S1+*	*70 - 130*	*02/15/24 17:12*	*02/19/24 07:51*	*1*

Lab Sample ID: LCS 880-73297/2-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1045		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1002		mg/Kg		100	70 - 130

Eurofins Midland

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

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

Lab Sample ID: LCS 880-73297/2-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73297

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*105*		*70 - 130*

Lab Sample ID: LCSD 880-73297/3-A
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73297

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1084		mg/Kg		108	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1050		mg/Kg		105	70 - 130	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 880-39450-A-1-F MS
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.5	U F1	1010	288.0	F1	mg/Kg		26	70 - 130
Diesel Range Organics (Over C10-C28)	<49.5	U F1 F2	1010	210.6	F1	mg/Kg		17	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*29*	*S1-*	*70 - 130*
o-Terphenyl	*21*	*S1-*	*70 - 130*

Lab Sample ID: 880-39450-A-1-G MSD
Matrix: Solid
Analysis Batch: 73423

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73297

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	<49.5	U F1	1010	241.0	F1	mg/Kg		21	70 - 130	18	20
Diesel Range Organics (Over C10-C28)	<49.5	U F1 F2	1010	119.2	F1 F2	mg/Kg		8	70 - 130	55	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*21*	*S1-*	*70 - 130*
o-Terphenyl	*10*	*S1-*	*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73143/1-A
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/16/24 23:49	1

Lab Sample ID: LCS 880-73143/2-A
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.4		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-73143/3-A
Matrix: Solid
Analysis Batch: 73274

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	248.4		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-39355-A-3-B MS
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	67.6		252	323.5		mg/Kg		102	90 - 110		

Lab Sample ID: 880-39355-A-3-C MSD
Matrix: Solid
Analysis Batch: 73274

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	67.6		252	324.4		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

GC VOA

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39360-1	BH-16(0-1')	Total/NA	Solid	5035	
880-39360-2	BH-16(2')	Total/NA	Solid	5035	
880-39360-3	BH-16(3')	Total/NA	Solid	5035	
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	5035	
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39360-1	BH-16(0-1')	Total/NA	Solid	8021B	73289
880-39360-2	BH-16(2')	Total/NA	Solid	8021B	73289
880-39360-3	BH-16(3')	Total/NA	Solid	8021B	73289
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
LCS 880-73289/1-A	Lab Control Sample	Total/NA	Solid	8021B	73289
LCSD 880-73289/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73289
880-39351-A-2-F MS	Matrix Spike	Total/NA	Solid	8021B	73289
880-39351-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73289

Analysis Batch: 73966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39360-1	BH-16(0-1')	Total/NA	Solid	Total BTEX	
880-39360-2	BH-16(2')	Total/NA	Solid	Total BTEX	
880-39360-3	BH-16(3')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39360-1	BH-16(0-1')	Total/NA	Solid	8015NM Prep	
880-39360-2	BH-16(2')	Total/NA	Solid	8015NM Prep	
880-39360-3	BH-16(3')	Total/NA	Solid	8015NM Prep	
MB 880-73297/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73297/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73297/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39450-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39450-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39360-1	BH-16(0-1')	Total/NA	Solid	8015B NM	73297
880-39360-2	BH-16(2')	Total/NA	Solid	8015B NM	73297
880-39360-3	BH-16(3')	Total/NA	Solid	8015B NM	73297
MB 880-73297/1-A	Method Blank	Total/NA	Solid	8015B NM	73297
LCS 880-73297/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73297
LCSD 880-73297/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73297
880-39450-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	73297
880-39450-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73297

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

GC Semi VOA

Analysis Batch: 73644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39360-1	BH-16(0-1')	Total/NA	Solid	8015 NM	
880-39360-2	BH-16(2')	Total/NA	Solid	8015 NM	
880-39360-3	BH-16(3')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39360-1	BH-16(0-1')	Soluble	Solid	DI Leach	
880-39360-2	BH-16(2')	Soluble	Solid	DI Leach	
880-39360-3	BH-16(3')	Soluble	Solid	DI Leach	
MB 880-73143/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73143/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73143/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39355-A-3-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39355-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 73274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39360-1	BH-16(0-1')	Soluble	Solid	300.0	73143
880-39360-2	BH-16(2')	Soluble	Solid	300.0	73143
880-39360-3	BH-16(3')	Soluble	Solid	300.0	73143
MB 880-73143/1-A	Method Blank	Soluble	Solid	300.0	73143
LCS 880-73143/2-A	Lab Control Sample	Soluble	Solid	300.0	73143
LCSD 880-73143/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73143
880-39355-A-3-B MS	Matrix Spike	Soluble	Solid	300.0	73143
880-39355-A-3-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73143

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Client Sample ID: BH-16(0-1')

Lab Sample ID: 880-39360-1
Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 03:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73966	02/23/24 03:10	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73644	02/19/24 18:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	73297	02/15/24 17:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 18:22	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73143	02/14/24 11:37	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73274	02/17/24 00:50	CH	EET MID

Client Sample ID: BH-16(2')

Lab Sample ID: 880-39360-2
Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 03:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73966	02/23/24 03:37	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73644	02/19/24 18:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73297	02/15/24 17:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 18:45	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73143	02/14/24 11:37	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73274	02/17/24 01:10	CH	EET MID

Client Sample ID: BH-16(3')

Lab Sample ID: 880-39360-3
Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

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	73289	02/15/24 15:58	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 04:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73966	02/23/24 04:03	AJ	EET MID
Total/NA	Analysis	8015 NM		1			73644	02/19/24 19:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	73297	02/15/24 17:12	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 19:08	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73143	02/14/24 11:37	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73274	02/17/24 01:17	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: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39360-1
SDG: Lea County,New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39360-1	BH-16(0-1')	Solid	02/12/24 00:00	02/13/24 16:03
880-39360-2	BH-16(2')	Solid	02/12/24 00:00	02/13/24 16:03
880-39360-3	BH-16(3')	Solid	02/12/24 00:00	02/13/24 16:03

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2/23/2024

Wc

880-39360 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone	Email	icastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT			
Temp Blank.	Yes No	Wet Ice	Yes No
Received Intact:	Yes No	Thermometer ID	IR5
Cooler Custody Seals.	Yes No N/A	Correction Factor	-1.0
Sample Custody Seals	Yes No N/A	Temperature Reading	2.6
Total Containers		Corrected Temperature	2.5

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold	Sample Comments
BH-16 (0-1')	2/12/2024		X		G	1	X	X	X		
BH-16 (2')	2/12/2024		X		G	1	X	X	X		
BH-16 (3')	2/12/2024		X		G	1	X	X	X		

Pres. Code / 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

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13 24
			4.03

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39360-1
SDG Number: Lea County,New Mexico

Login Number: 39360
List Number: 1
Creator: Wheeler, Jazmine

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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

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JOB DESCRIPTION

Nighthawk State Com #003H
Lea County, New Mexico

JOB NUMBER

880-39338-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

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my EOL

Eurofins Midland

Job Notes

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

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

Authorization

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39338-1
SDG: Lea County, New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea 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, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
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: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39338-1

Job ID: 880-39338-1 Eurofins Midland

Job Narrative
880-39338-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: H-1 (0-0.5') (880-39338-1), H-2 (0-0.5') (880-39338-2), H-3 (0-0.5') (880-39338-3), H-4 (0-0.5') (880-39338-4), H-5 (0-0.5') (880-39338-5), H-6 (0-0.5') (880-39338-6), H-7 (0-0.5') (880-39338-7), H-8 (0-0.5') (880-39338-8), H-9 (0-0.5') (880-39338-9) and H-10 (0-0.5') (880-39338-10).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: H-7 (0-0.5') (880-39338-7), H-8 (0-0.5') (880-39338-8), H-9 (0-0.5') (880-39338-9) and (880-39338-A-1-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73283 and analytical batch 880-73716 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: CCV failed due to instrumentation malfunction. The data has been qualified and reported since an acceptable CCV was ran within the 12 hour window.

(CCV 880-73716/20)

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73293 and analytical batch 880-73409 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: H-7 (0-0.5') (880-39338-7), H-10 (0-0.5') (880-39338-10) and (880-39338-A-1-G MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73293 and analytical batch 880-73409 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike duplicate (MSD) recoveries for preparation batch 880-73117 and 880-73117 and analytical batch 880-73231 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Eurofins Midland

Case Narrative

Client: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 880-39338-1

Job ID: 880-39338-1 (Continued) Eurofins Midland

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73117 and analytical batch 880-73231 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F2 F1	0.00199		mg/Kg		02/15/24 15:23	02/21/24 13:14	1
Toluene	<0.00199	U F2 F1	0.00199		mg/Kg		02/15/24 15:23	02/21/24 13:14	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		02/15/24 15:23	02/21/24 13:14	1
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.00398		mg/Kg		02/15/24 15:23	02/21/24 13:14	1
o-Xylene	<0.00199	U F2 F1	0.00199		mg/Kg		02/15/24 15:23	02/21/24 13:14	1
Xylenes, Total	<0.00398	U F2 F1	0.00398		mg/Kg		02/15/24 15:23	02/21/24 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*02/15/24 15:23*	*02/21/24 13:14*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*02/15/24 15:23*	*02/21/24 13:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/21/24 13:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/18/24 20:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	49.7		mg/Kg		02/15/24 17:01	02/18/24 20:24	1
Diesel Range Organics (Over C10-C28)	<49.7	U F1	49.7		mg/Kg		02/15/24 17:01	02/18/24 20:24	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/15/24 17:01	02/18/24 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:01*	*02/18/24 20:24*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/15/24 17:01*	*02/18/24 20:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**345**		5.00		mg/Kg			02/15/24 12:32	1

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

Lab Sample ID: 880-39338-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 13:42	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 13:42	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 13:42	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:23	02/21/24 13:42	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 13:42	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:23	02/21/24 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/15/24 15:23*	*02/21/24 13:42*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:23*	*02/21/24 13:42*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/21/24 13:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/18/24 21:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:01	02/18/24 21:35	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:01	02/18/24 21:35	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:01	02/18/24 21:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:01*	*02/18/24 21:35*	*1*
o-Terphenyl	*73*		*70 - 130*	*02/15/24 17:01*	*02/18/24 21:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**175**		5.02		mg/Kg			02/15/24 12:36	1

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

Lab Sample ID: 880-39338-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 14:11	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 14:11	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 14:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/15/24 15:23	02/21/24 14:11	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 14:11	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/15/24 15:23	02/21/24 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*02/15/24 15:23*	*02/21/24 14:11*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/15/24 15:23*	*02/21/24 14:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/21/24 14:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/18/24 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/15/24 17:01	02/18/24 21:59	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/15/24 17:01	02/18/24 21:59	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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)	<49.7	U	49.7		mg/Kg		02/15/24 17:01	02/18/24 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/15/24 17:01*	*02/18/24 21:59*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/15/24 17:01*	*02/18/24 21:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**324**		5.03		mg/Kg			02/15/24 12:41	1

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

Lab Sample ID: 880-39338-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:23	02/21/24 14:38	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:23	02/21/24 14:38	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:23	02/21/24 14:38	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:23	02/21/24 14:38	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:23	02/21/24 14:38	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:23	02/21/24 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*02/15/24 15:23*	*02/21/24 14:38*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/15/24 15:23*	*02/21/24 14:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/21/24 14:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/18/24 22:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 22:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 22:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*02/15/24 17:01*	*02/18/24 22:22*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/15/24 17:01*	*02/18/24 22:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**335**		4.97		mg/Kg			02/15/24 12:46	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-5
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 15:05	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 15:05	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 15:05	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:23	02/21/24 15:05	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 15:05	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:23	02/21/24 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*02/15/24 15:23*	*02/21/24 15:05*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/15/24 15:23*	*02/21/24 15:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/21/24 15:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/18/24 22:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:01	02/18/24 22:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:01	02/18/24 22:46	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:01	02/18/24 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/15/24 17:01*	*02/18/24 22:46*	*1*
o-Terphenyl	*72*		*70 - 130*	*02/15/24 17:01*	*02/18/24 22:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**345**	**F1**	4.99		mg/Kg			02/15/24 12:50	1

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

Lab Sample ID: 880-39338-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 15:32	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 15:32	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 15:32	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		02/15/24 15:23	02/21/24 15:32	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 15:32	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		02/15/24 15:23	02/21/24 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/15/24 15:23*	*02/21/24 15:32*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/15/24 15:23*	*02/21/24 15:32*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			02/21/24 15:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			02/18/24 23:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		02/15/24 17:01	02/18/24 23:10	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		02/15/24 17:01	02/18/24 23:10	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/15/24 17:01	02/18/24 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:01*	*02/18/24 23:10*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/15/24 17:01*	*02/18/24 23:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**376**		5.02		mg/Kg			02/15/24 13:04	1

Client Sample ID: H-7 (0-0.5')

Lab Sample ID: 880-39338-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 15:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 15:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 15:59	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/15/24 15:23	02/21/24 15:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 15:59	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/15/24 15:23	02/21/24 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*188*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 15:59*	*1*
1,4-Difluorobenzene (Surr)	*157*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 15:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/21/24 15:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			02/18/24 23:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/15/24 17:01	02/18/24 23:33	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		02/15/24 17:01	02/18/24 23:33	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

Client Sample ID: H-7 (0-0.5')

Lab Sample ID: 880-39338-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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)	<49.6	U	49.6		mg/Kg		02/15/24 17:01	02/18/24 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*67*	*S1-*	*70 - 130*	*02/15/24 17:01*	*02/18/24 23:33*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*02/15/24 17:01*	*02/18/24 23:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**712**		5.01		mg/Kg			02/15/24 13:09	1

Client Sample ID: H-8 (0-0.5')

Lab Sample ID: 880-39338-8
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 16:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 16:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 16:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:23	02/21/24 16:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 16:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:23	02/21/24 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*141*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 16:26*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*02/15/24 15:23*	*02/21/24 16:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/21/24 16:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/18/24 23:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:01	02/18/24 23:57	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/15/24 17:01	02/18/24 23:57	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/15/24 17:01	02/18/24 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*02/15/24 17:01*	*02/18/24 23:57*	*1*
o-Terphenyl	*78*		*70 - 130*	*02/15/24 17:01*	*02/18/24 23:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**342**		5.05		mg/Kg			02/15/24 13:23	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

Client Sample ID: H-9 (0-0.5')

Lab Sample ID: 880-39338-9
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 16:54	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 16:54	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 16:54	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:23	02/21/24 16:54	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 16:54	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:23	02/21/24 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*145*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 16:54*	*1*
1,4-Difluorobenzene (Surr)	*223*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 16:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/21/24 16:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/19/24 00:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:01	02/19/24 00:21	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/15/24 17:01	02/19/24 00:21	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:01	02/19/24 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*02/15/24 17:01*	*02/19/24 00:21*	*1*
o-Terphenyl	*88*		*70 - 130*	*02/15/24 17:01*	*02/19/24 00:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**669**		5.00		mg/Kg			02/15/24 13:27	1

Client Sample ID: H-10 (0-0.5')

Lab Sample ID: 880-39338-10
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 17:21	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 17:21	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 17:21	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:23	02/21/24 17:21	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 17:21	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:23	02/21/24 17:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*02/15/24 15:23*	*02/21/24 17:21*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/15/24 15:23*	*02/21/24 17:21*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

Client Sample ID: H-10 (0-0.5')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39338-10

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/21/24 17:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/19/24 00:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:01	02/19/24 00:46	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:01	02/19/24 00:46	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:01	02/19/24 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/15/24 17:01*	*02/19/24 00:46*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/15/24 17:01*	*02/19/24 00:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		4.99		mg/Kg			02/15/24 13:32	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

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

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-39338-1	H-1 (0-0.5')	103	117
880-39338-1 MS	H-1 (0-0.5')	105	109
880-39338-1 MSD	H-1 (0-0.5')	138 S1+	134 S1+
880-39338-2	H-2 (0-0.5')	108	107
880-39338-3	H-3 (0-0.5')	94	102
880-39338-4	H-4 (0-0.5')	99	100
880-39338-5	H-5 (0-0.5')	112	102
880-39338-6	H-6 (0-0.5')	97	93
880-39338-7	H-7 (0-0.5')	188 S1+	157 S1+
880-39338-8	H-8 (0-0.5')	141 S1+	115
880-39338-9	H-9 (0-0.5')	145 S1+	223 S1+
880-39338-10	H-10 (0-0.5')	123	96
LCS 880-73283/1-A	Lab Control Sample	109	109
LCSD 880-73283/2-A	Lab Control Sample Dup	88	95
MB 880-73283/5-A	Method Blank	76	117

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

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

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

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

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-39338-1	H-1 (0-0.5')	72	74
880-39338-1 MS	H-1 (0-0.5')	69 S1-	64 S1-
880-39338-1 MSD	H-1 (0-0.5')	83	77
880-39338-2	H-2 (0-0.5')	72	73
880-39338-3	H-3 (0-0.5')	83	85
880-39338-4	H-4 (0-0.5')	74	74
880-39338-5	H-5 (0-0.5')	70	72
880-39338-6	H-6 (0-0.5')	72	74
880-39338-7	H-7 (0-0.5')	67 S1-	68 S1-
880-39338-8	H-8 (0-0.5')	77	78
880-39338-9	H-9 (0-0.5')	85	88
880-39338-10	H-10 (0-0.5')	69 S1-	70
LCS 880-73293/2-A	Lab Control Sample	100	111
LCSD 880-73293/3-A	Lab Control Sample Dup	89	99
MB 880-73293/1-A	Method Blank	103	115

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73283/5-A
Matrix: Solid
Analysis Batch: 73716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73283

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:23	02/21/24 12:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/15/24 15:23*	*02/21/24 12:45*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*02/15/24 15:23*	*02/21/24 12:45*	*1*

Lab Sample ID: LCS 880-73283/1-A
Matrix: Solid
Analysis Batch: 73716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73283

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1131		mg/Kg		113	70 - 130		
Toluene			0.100	0.1084		mg/Kg		108	70 - 130		
Ethylbenzene			0.100	0.1145		mg/Kg		115	70 - 130		
m-Xylene & p-Xylene			0.200	0.2131		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1087		mg/Kg		109	70 - 130		

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

Lab Sample ID: LCSD 880-73283/2-A
Matrix: Solid
Analysis Batch: 73716

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73283

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1036		mg/Kg		104	70 - 130	9	35
Toluene			0.100	0.1051		mg/Kg		105	70 - 130	3	35
Ethylbenzene			0.100	0.1009		mg/Kg		101	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.2150		mg/Kg		108	70 - 130	1	35
o-Xylene			0.100	0.09529		mg/Kg		95	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-39338-1 MS
Matrix: Solid
Analysis Batch: 73716

Client Sample ID: H-1 (0-0.5')
Prep Type: Total/NA
Prep Batch: 73283

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U F2 F1	0.100	0.06592	F1	mg/Kg		66	70 - 130		
Toluene	<0.00199	U F2 F1	0.100	0.05574	F1	mg/Kg		56	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-1 MS
Matrix: Solid
Analysis Batch: 73716

Client Sample ID: H-1 (0-0.5')
Prep Type: Total/NA
Prep Batch: 73283

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.100	0.06230	F1	mg/Kg		62	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1135	F1	mg/Kg		57	70 - 130
o-Xylene	<0.00199	U F2 F1	0.100	0.04772	F1	mg/Kg		48	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 880-39338-1 MSD
Matrix: Solid
Analysis Batch: 73716

Client Sample ID: H-1 (0-0.5')
Prep Type: Total/NA
Prep Batch: 73283

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.101	0.09746	F2	mg/Kg		97	70 - 130	39	35
Toluene	<0.00199	U F2 F1	0.101	0.09534	F2	mg/Kg		95	70 - 130	52	35
Ethylbenzene	<0.00199	U F1	0.101	0.08718		mg/Kg		87	70 - 130	33	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.201	0.1918	F2	mg/Kg		95	70 - 130	51	35
o-Xylene	<0.00199	U F2 F1	0.101	0.09222	F2	mg/Kg		92	70 - 130	64	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*134*	*S1+*	*70 - 130*

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

Lab Sample ID: MB 880-73293/1-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 19:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 19:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 19:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*02/15/24 17:01*	*02/18/24 19:14*	*1*
o-Terphenyl	*115*		*70 - 130*	*02/15/24 17:01*	*02/18/24 19:14*	*1*

Lab Sample ID: LCS 880-73293/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	948.6		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1000		mg/Kg		100	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: LCS 880-73293/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73293

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-73293/3-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	905.5		mg/Kg		91	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	969.0		mg/Kg		97	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 880-39338-1 MS
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: H-1 (0-0.5')
Prep Type: Total/NA
Prep Batch: 73293

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	1010	647.8	F1	mg/Kg		60	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1010	628.7	F1	mg/Kg		58	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	64	S1-	70 - 130

Lab Sample ID: 880-39338-1 MSD
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: H-1 (0-0.5')
Prep Type: Total/NA
Prep Batch: 73293

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	<49.7	U F1 F2	1010	851.5	F2	mg/Kg		80	70 - 130	27	20
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1010	761.6		mg/Kg		71	70 - 130	19	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	77		70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73117/1-A
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 11:31	1

Lab Sample ID: LCS 880-73117/2-A
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-73117/3-A
Matrix: Solid
Analysis Batch: 73231

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	235.8		mg/Kg		94	90 - 110	1	20

Lab Sample ID: 880-39338-5 MS
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: H-5 (0-0.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	345	F1	250	558.1	F1	mg/Kg		86	90 - 110		

Lab Sample ID: 880-39338-5 MSD
Matrix: Solid
Analysis Batch: 73231

Client Sample ID: H-5 (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	345	F1	250	559.9	F1	mg/Kg		86	90 - 110	0	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

GC VOA

Prep Batch: 73283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39338-1	H-1 (0-0.5')	Total/NA	Solid	5035	
880-39338-2	H-2 (0-0.5')	Total/NA	Solid	5035	
880-39338-3	H-3 (0-0.5')	Total/NA	Solid	5035	
880-39338-4	H-4 (0-0.5')	Total/NA	Solid	5035	
880-39338-5	H-5 (0-0.5')	Total/NA	Solid	5035	
880-39338-6	H-6 (0-0.5')	Total/NA	Solid	5035	
880-39338-7	H-7 (0-0.5')	Total/NA	Solid	5035	
880-39338-8	H-8 (0-0.5')	Total/NA	Solid	5035	
880-39338-9	H-9 (0-0.5')	Total/NA	Solid	5035	
880-39338-10	H-10 (0-0.5')	Total/NA	Solid	5035	
MB 880-73283/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73283/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73283/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39338-1 MS	H-1 (0-0.5')	Total/NA	Solid	5035	
880-39338-1 MSD	H-1 (0-0.5')	Total/NA	Solid	5035	

Analysis Batch: 73716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39338-1	H-1 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-2	H-2 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-3	H-3 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-4	H-4 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-5	H-5 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-6	H-6 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-7	H-7 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-8	H-8 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-9	H-9 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-10	H-10 (0-0.5')	Total/NA	Solid	8021B	73283
MB 880-73283/5-A	Method Blank	Total/NA	Solid	8021B	73283
LCS 880-73283/1-A	Lab Control Sample	Total/NA	Solid	8021B	73283
LCSD 880-73283/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73283
880-39338-1 MS	H-1 (0-0.5')	Total/NA	Solid	8021B	73283
880-39338-1 MSD	H-1 (0-0.5')	Total/NA	Solid	8021B	73283

Analysis Batch: 73882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39338-1	H-1 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-2	H-2 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-3	H-3 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-4	H-4 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-5	H-5 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-6	H-6 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-7	H-7 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-8	H-8 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-9	H-9 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39338-10	H-10 (0-0.5')	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

GC Semi VOA

Prep Batch: 73293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39338-1	H-1 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-2	H-2 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-3	H-3 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-4	H-4 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-5	H-5 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-6	H-6 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-7	H-7 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-8	H-8 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-9	H-9 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-10	H-10 (0-0.5')	Total/NA	Solid	8015NM Prep	
MB 880-73293/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73293/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39338-1 MS	H-1 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39338-1 MSD	H-1 (0-0.5')	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39338-1	H-1 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-2	H-2 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-3	H-3 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-4	H-4 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-5	H-5 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-6	H-6 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-7	H-7 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-8	H-8 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-9	H-9 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-10	H-10 (0-0.5')	Total/NA	Solid	8015B NM	73293
MB 880-73293/1-A	Method Blank	Total/NA	Solid	8015B NM	73293
LCS 880-73293/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73293
LCSD 880-73293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73293
880-39338-1 MS	H-1 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39338-1 MSD	H-1 (0-0.5')	Total/NA	Solid	8015B NM	73293

Analysis Batch: 73505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39338-1	H-1 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-2	H-2 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-3	H-3 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-4	H-4 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-5	H-5 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-6	H-6 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-7	H-7 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-8	H-8 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-9	H-9 (0-0.5')	Total/NA	Solid	8015 NM	
880-39338-10	H-10 (0-0.5')	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

HPLC/IC

Leach Batch: 73117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39338-1	H-1 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-2	H-2 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-3	H-3 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-4	H-4 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-5	H-5 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-6	H-6 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-7	H-7 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-8	H-8 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-9	H-9 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-10	H-10 (0-0.5')	Soluble	Solid	DI Leach	
MB 880-73117/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73117/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73117/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39338-5 MS	H-5 (0-0.5')	Soluble	Solid	DI Leach	
880-39338-5 MSD	H-5 (0-0.5')	Soluble	Solid	DI Leach	

Analysis Batch: 73231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39338-1	H-1 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-2	H-2 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-3	H-3 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-4	H-4 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-5	H-5 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-6	H-6 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-7	H-7 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-8	H-8 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-9	H-9 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-10	H-10 (0-0.5')	Soluble	Solid	300.0	73117
MB 880-73117/1-A	Method Blank	Soluble	Solid	300.0	73117
LCS 880-73117/2-A	Lab Control Sample	Soluble	Solid	300.0	73117
LCSD 880-73117/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73117
880-39338-5 MS	H-5 (0-0.5')	Soluble	Solid	300.0	73117
880-39338-5 MSD	H-5 (0-0.5')	Soluble	Solid	300.0	73117

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 13:14	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 13:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/18/24 20:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 20:24	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:32	SMC	EET MID

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

Lab Sample ID: 880-39338-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 13:42	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 13:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/18/24 21:35	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 21:35	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:36	SMC	EET MID

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

Lab Sample ID: 880-39338-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 14:11	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 14:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/18/24 21:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 21:59	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:41	SMC	EET MID

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

Lab Sample ID: 880-39338-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 14:38	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 14:38	SM	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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			73505	02/18/24 22:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 22:22	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:46	SMC	EET MID

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

Lab Sample ID: 880-39338-5
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 15:05	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 15:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/18/24 22:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 22:46	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 12:50	SMC	EET MID

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

Lab Sample ID: 880-39338-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 15:32	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 15:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/18/24 23:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 23:10	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:04	SMC	EET MID

Client Sample ID: H-7 (0-0.5')

Lab Sample ID: 880-39338-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 15:59	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 15:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/18/24 23:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 23:33	SM	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

Client Sample ID: H-7 (0-0.5')

Lab Sample ID: 880-39338-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:09	SMC	EET MID

Client Sample ID: H-8 (0-0.5')

Lab Sample ID: 880-39338-8
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 16:26	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 16:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/18/24 23:57	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 23:57	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:23	SMC	EET MID

Client Sample ID: H-9 (0-0.5')

Lab Sample ID: 880-39338-9
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 16:54	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 16:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/19/24 00:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 00:21	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:27	SMC	EET MID

Client Sample ID: H-10 (0-0.5')

Lab Sample ID: 880-39338-10
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 17:21	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73882	02/21/24 17:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			73505	02/19/24 00:46	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 00:46	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73117	02/14/24 10:01	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73231	02/15/24 13:32	SMC	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea 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: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39338-1
SDG: Lea County, New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39338-1	H-1 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-2	H-2 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-3	H-3 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-4	H-4 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-5	H-5 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-6	H-6 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-7	H-7 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-8	H-8 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-9	H-9 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39338-10	H-10 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03

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

ls odh

880-39338 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone	Email	icastro@marathonoil.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	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT				
Temp Blank	Yes No	Wet Ice	Yes No	
Received Intact	Yes No	Thermometer ID	IR4	
Cooler Custody Seals	Yes No N/A	Correction Factor	-1.0	
Sample Custody Seals	Yes No N/A	Temperature Reading	3.4	
Total Containers		Corrected Temperature	2.5	

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	Parameters: BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold	Sample Comments
H-1 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-2 (0-0.5')	2/12/2024		X		G	1	X	X	X		
H-3 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-4 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-5 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-6 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-7 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-8 (0-0.5')	2/12/2024		X		G	1	X	X	X		
H-9 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-10 (0-0 5')	2/12/2024		X		G	1	X	X	X		

Comments Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources.com, Clint Merritt MerrittC@carmonaresources.com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02-13-24
			4.03

Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39338-1
SDG Number: Lea County, New Mexico

Login Number: 39338
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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/22/2024 3:38:38 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County, New Mexico

JOB NUMBER

880-39341-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
2/22/2024 3:38:38 PM

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39341-1
SDG: Lea County, New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea 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, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
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: Nighthawk State Com #003H

Job ID: 880-39341-1

Job ID: 880-39341-1 Eurofins Midland

Job Narrative
880-39341-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: H-11 (0-0.5') (880-39341-1), H-12 (0-0.5') (880-39341-2), H-13 (0-0.5') (880-39341-3), H-14 (0-0.5') (880-39341-4), H-15 (0-0.5') (880-39341-5), H-16 (0-0.5') (880-39341-6), H-17 (0-0.5') (880-39341-7), H-18 (0-0.5') (880-39341-8), H-19 (0-0.5') (880-39341-9) and H-20 (0-0.5') (880-39341-10).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-39338-A-1-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: H-11 (0-0.5') (880-39341-1), H-13 (0-0.5') (880-39341-3), H-15 (0-0.5') (880-39341-5), H-17 (0-0.5') (880-39341-7), H-18 (0-0.5') (880-39341-8) and H-20 (0-0.5') (880-39341-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73283 and analytical batch 880-73716 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: CCV failed due to instrumentation malfunction. The data has been qualified and reported since an acceptable CCV was ran within the 12 hour window.

(CCV 880-73716/20)

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73293 and analytical batch 880-73409 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: H-17 (0-0.5') (880-39341-7) and (880-39338-A-1-G MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73293 and analytical batch 880-73409 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC

Case Narrative

Client: Carmona Resources
Job ID: 880-39341-1
Project: Nighthawk State Com #003H

Job ID: 880-39341-1 (Continued)
Eurofins Midland

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: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-11 (0-0.5')

Lab Sample ID: 880-39341-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 19:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 19:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 19:11	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/15/24 15:23	02/21/24 19:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 19:11	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/15/24 15:23	02/21/24 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*02/15/24 15:23*	*02/21/24 19:11*	*1*
1,4-Difluorobenzene (Surr)	*156*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 19:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/21/24 19:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/19/24 01:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:01	02/19/24 01:34	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:01	02/19/24 01:34	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:01	02/19/24 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*02/15/24 17:01*	*02/19/24 01:34*	*1*
o-Terphenyl	*84*		*70 - 130*	*02/15/24 17:01*	*02/19/24 01:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**161**		4.97		mg/Kg			02/15/24 16:42	1

Client Sample ID: H-12 (0-0.5')

Lab Sample ID: 880-39341-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 19:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 19:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 19:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:23	02/21/24 19:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 19:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:23	02/21/24 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*02/15/24 15:23*	*02/21/24 19:38*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*02/15/24 15:23*	*02/21/24 19:38*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-12 (0-0.5')

Lab Sample ID: 880-39341-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/21/24 19:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			02/19/24 01:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/19/24 01:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/19/24 01:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/19/24 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:01*	*02/19/24 01:58*	*1*
o-Terphenyl	*73*		*70 - 130*	*02/15/24 17:01*	*02/19/24 01:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**147**		5.03		mg/Kg			02/15/24 16:47	1

Client Sample ID: H-13 (0-0.5')

Lab Sample ID: 880-39341-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 20:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 20:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 20:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:23	02/21/24 20:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 20:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:23	02/21/24 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*02/15/24 15:23*	*02/21/24 20:05*	*1*
1,4-Difluorobenzene (Surr)	*162*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 20:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/21/24 20:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**71.4**		49.9		mg/Kg			02/19/24 02:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:01	02/19/24 02:22	1
Diesel Range Organics (Over C10-C28)	**71.4**		49.9		mg/Kg		02/15/24 17:01	02/19/24 02:22	1

Eurofins Midland

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-13 (0-0.5')

Lab Sample ID: 880-39341-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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		02/15/24 17:01	02/19/24 02:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*02/15/24 17:01*	*02/19/24 02:22*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/15/24 17:01*	*02/19/24 02:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**421**		5.05		mg/Kg			02/15/24 16:51	1

Client Sample ID: H-14 (0-0.5')

Lab Sample ID: 880-39341-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 20:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 20:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 20:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:23	02/21/24 20:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 20:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:23	02/21/24 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:23*	*02/21/24 20:32*	*1*
1,4-Difluorobenzene (Surr)	*74*		*70 - 130*	*02/15/24 15:23*	*02/21/24 20:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/21/24 20:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			02/19/24 02:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		02/15/24 17:01	02/19/24 02:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		02/15/24 17:01	02/19/24 02:46	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/24 17:01	02/19/24 02:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/15/24 17:01*	*02/19/24 02:46*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/15/24 17:01*	*02/19/24 02:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**452**		5.02		mg/Kg			02/15/24 17:05	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-15 (0-0.5')

Lab Sample ID: 880-39341-5
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 20:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 20:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 20:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:23	02/21/24 20:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 20:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:23	02/21/24 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*02/15/24 15:23*	*02/21/24 20:59*	*1*
1,4-Difluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 20:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/21/24 20:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/19/24 03:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/15/24 17:01	02/19/24 03:09	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/15/24 17:01	02/19/24 03:09	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/15/24 17:01	02/19/24 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*02/15/24 17:01*	*02/19/24 03:09*	*1*
o-Terphenyl	*76*		*70 - 130*	*02/15/24 17:01*	*02/19/24 03:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**93.1**		5.01		mg/Kg			02/15/24 17:10	1

Client Sample ID: H-16 (0-0.5')

Lab Sample ID: 880-39341-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 21:26	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 21:26	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 21:26	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/15/24 15:23	02/21/24 21:26	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 21:26	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/15/24 15:23	02/21/24 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/15/24 15:23*	*02/21/24 21:26*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*02/15/24 15:23*	*02/21/24 21:26*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-16 (0-0.5')

Lab Sample ID: 880-39341-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/21/24 21:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**109**		49.6		mg/Kg			02/19/24 03:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/15/24 17:01	02/19/24 03:32	1
Diesel Range Organics (Over C10-C28)	**109**		49.6		mg/Kg		02/15/24 17:01	02/19/24 03:32	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		02/15/24 17:01	02/19/24 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*74*		*70 - 130*	*02/15/24 17:01*	*02/19/24 03:32*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/15/24 17:01*	*02/19/24 03:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**778**		4.97		mg/Kg			02/15/24 17:15	1

Client Sample ID: H-17 (0-0.5')

Lab Sample ID: 880-39341-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:23	02/21/24 21:53	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:23	02/21/24 21:53	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:23	02/21/24 21:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:23	02/21/24 21:53	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:23	02/21/24 21:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:23	02/21/24 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*133*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 21:53*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*02/15/24 15:23*	*02/21/24 21:53*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/21/24 21:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**106**		50.1		mg/Kg			02/19/24 03:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:01	02/19/24 03:55	1
Diesel Range Organics (Over C10-C28)	**106**		50.1		mg/Kg		02/15/24 17:01	02/19/24 03:55	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-17 (0-0.5')

Lab Sample ID: 880-39341-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:01	02/19/24 03:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*02/15/24 17:01*	*02/19/24 03:55*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*02/15/24 17:01*	*02/19/24 03:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**763**		4.95		mg/Kg			02/15/24 17:19	1

Client Sample ID: H-18 (0-0.5')

Lab Sample ID: 880-39341-8
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 22:20	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 22:20	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 22:20	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:23	02/21/24 22:20	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:23	02/21/24 22:20	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:23	02/21/24 22:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 22:20*	*1*
1,4-Difluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 22:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/21/24 22:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**4840**		50.4		mg/Kg			02/19/24 04:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:01	02/19/24 04:18	1
Diesel Range Organics (Over C10-C28)	**3860**		50.4		mg/Kg		02/15/24 17:01	02/19/24 04:18	1
Oll Range Organics (Over C28-C36)	**982**		50.4		mg/Kg		02/15/24 17:01	02/19/24 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/15/24 17:01*	*02/19/24 04:18*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/15/24 17:01*	*02/19/24 04:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**162**		4.98		mg/Kg			02/15/24 17:24	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-19 (0-0.5')

Lab Sample ID: 880-39341-9
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 22:47	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 22:47	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 22:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:23	02/21/24 22:47	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:23	02/21/24 22:47	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:23	02/21/24 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/15/24 15:23*	*02/21/24 22:47*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/15/24 15:23*	*02/21/24 22:47*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/21/24 22:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**297**		50.3		mg/Kg			02/19/24 04:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:01	02/19/24 04:41	1
Diesel Range Organics (Over C10-C28)	**209**		50.3		mg/Kg		02/15/24 17:01	02/19/24 04:41	1
Oil Range Organics (Over C28-C36)	**87.5**		50.3		mg/Kg		02/15/24 17:01	02/19/24 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*02/15/24 17:01*	*02/19/24 04:41*	*1*
o-Terphenyl	*84*		*70 - 130*	*02/15/24 17:01*	*02/19/24 04:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**626**		5.02		mg/Kg			02/15/24 17:29	1

Client Sample ID: H-20 (0-0.5')

Lab Sample ID: 880-39341-10
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 23:14	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 23:14	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 23:14	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		02/15/24 15:23	02/21/24 23:14	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/15/24 15:23	02/21/24 23:14	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/15/24 15:23	02/21/24 23:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*02/15/24 15:23*	*02/21/24 23:14*	*1*
1,4-Difluorobenzene (Surr)	*191*	*S1+*	*70 - 130*	*02/15/24 15:23*	*02/21/24 23:14*	*1*

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Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-20 (0-0.5')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39341-10

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			02/21/24 23:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**74.5**		50.3		mg/Kg			02/19/24 05:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:01	02/19/24 05:04	1
Diesel Range Organics (Over C10-C28)	**74.5**		50.3		mg/Kg		02/15/24 17:01	02/19/24 05:04	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		02/15/24 17:01	02/19/24 05:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*02/15/24 17:01*	*02/19/24 05:04*	*1*
o-Terphenyl	*77*		*70 - 130*	*02/15/24 17:01*	*02/19/24 05:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**207**		4.99		mg/Kg			02/15/24 17:43	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea 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)
880-39338-A-1-C MS	Matrix Spike	105	109
880-39338-A-1-D MSD	Matrix Spike Duplicate	138 S1+	134 S1+
880-39341-1	H-11 (0-0.5')	113	156 S1+
880-39341-2	H-12 (0-0.5')	82	73
880-39341-3	H-13 (0-0.5')	87	162 S1+
880-39341-4	H-14 (0-0.5')	106	74
880-39341-5	H-15 (0-0.5')	83	139 S1+
880-39341-6	H-16 (0-0.5')	89	82
880-39341-7	H-17 (0-0.5')	133 S1+	111
880-39341-8	H-18 (0-0.5')	135 S1+	136 S1+
880-39341-9	H-19 (0-0.5')	105	106
880-39341-10	H-20 (0-0.5')	111	191 S1+
LCS 880-73283/1-A	Lab Control Sample	109	109
LCSD 880-73283/2-A	Lab Control Sample Dup	88	95
MB 880-73283/5-A	Method Blank	76	117

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)
880-39338-A-1-G MS	Matrix Spike	69 S1-	64 S1-
880-39338-A-1-H MSD	Matrix Spike Duplicate	83	77
880-39341-1	H-11 (0-0.5')	81	84
880-39341-2	H-12 (0-0.5')	72	73
880-39341-3	H-13 (0-0.5')	70	70
880-39341-4	H-14 (0-0.5')	83	87
880-39341-5	H-15 (0-0.5')	77	76
880-39341-6	H-16 (0-0.5')	74	74
880-39341-7	H-17 (0-0.5')	68 S1-	67 S1-
880-39341-8	H-18 (0-0.5')	88	87
880-39341-9	H-19 (0-0.5')	85	84
880-39341-10	H-20 (0-0.5')	75	77
LCS 880-73293/2-A	Lab Control Sample	100	111
LCSD 880-73293/3-A	Lab Control Sample Dup	89	99
MB 880-73293/1-A	Method Blank	103	115

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73283/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73716 — **Prep Batch: 73283**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:23	02/21/24 12:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:23	02/21/24 12:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/15/24 15:23*	*02/21/24 12:45*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*02/15/24 15:23*	*02/21/24 12:45*	*1*

Lab Sample ID: LCS 880-73283/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73716 — **Prep Batch: 73283**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1131		mg/Kg		113	70 - 130
Toluene	0.100	0.1084		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1145		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1087		mg/Kg		109	70 - 130

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

Lab Sample ID: LCSD 880-73283/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73716 — **Prep Batch: 73283**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1036		mg/Kg		104	70 - 130	9	35
Toluene	0.100	0.1051		mg/Kg		105	70 - 130	3	35
Ethylbenzene	0.100	0.1009		mg/Kg		101	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.2150		mg/Kg		108	70 - 130	1	35
o-Xylene	0.100	0.09529		mg/Kg		95	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-39338-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73716 — **Prep Batch: 73283**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F2 F1	0.100	0.06592	F1	mg/Kg		66	70 - 130
Toluene	<0.00199	U F2 F1	0.100	0.05574	F1	mg/Kg		56	70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39338-A-1-C MS
Matrix: Solid
Analysis Batch: 73716

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73283

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.100	0.06230	F1	mg/Kg		62	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1135	F1	mg/Kg		57	70 - 130
o-Xylene	<0.00199	U F2 F1	0.100	0.04772	F1	mg/Kg		48	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 880-39338-A-1-D MSD
Matrix: Solid
Analysis Batch: 73716

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73283

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F2 F1	0.101	0.09746	F2	mg/Kg		97	70 - 130	39	35
Toluene	<0.00199	U F2 F1	0.101	0.09534	F2	mg/Kg		95	70 - 130	52	35
Ethylbenzene	<0.00199	U F1	0.101	0.08718		mg/Kg		87	70 - 130	33	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.201	0.1918	F2	mg/Kg		95	70 - 130	51	35
o-Xylene	<0.00199	U F2 F1	0.101	0.09222	F2	mg/Kg		92	70 - 130	64	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*134*	*S1+*	*70 - 130*

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

Lab Sample ID: MB 880-73293/1-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73293

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 19:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 19:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/24 17:01	02/18/24 19:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*02/15/24 17:01*	*02/18/24 19:14*	*1*
o-Terphenyl	*115*		*70 - 130*	*02/15/24 17:01*	*02/18/24 19:14*	*1*

Lab Sample ID: LCS 880-73293/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	948.6		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1000		mg/Kg		100	70 - 130

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QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

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

Lab Sample ID: LCS 880-73293/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73293

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-73293/3-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73293

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	905.5		mg/Kg		91	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	969.0		mg/Kg		97	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 880-39338-A-1-G MS
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73293

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.7	U F1 F2	1010	647.8	F1	mg/Kg		60	70 - 130
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1010	628.7	F1	mg/Kg		58	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	64	S1-	70 - 130

Lab Sample ID: 880-39338-A-1-H MSD
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73293

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	<49.7	U F1 F2	1010	851.5	F2	mg/Kg		80	70 - 130	27	20
Diesel Range Organics (Over C10-C28)	<49.7	U F1	1010	761.6		mg/Kg		71	70 - 130	19	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	77		70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73132/1-A
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 16:10	1

Lab Sample ID: LCS 880-73132/2-A
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	235.2		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-73132/3-A
Matrix: Solid
Analysis Batch: 73257

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	236.4		mg/Kg		95	90 - 110	1	20

Lab Sample ID: 880-39341-9 MS
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: H-19 (0-0.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	626		251	857.4		mg/Kg		92	90 - 110		

Lab Sample ID: 880-39341-9 MSD
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: H-19 (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	626		251	866.1		mg/Kg		96	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

GC VOA

Prep Batch: 73283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39341-1	H-11 (0-0.5')	Total/NA	Solid	5035	
880-39341-2	H-12 (0-0.5')	Total/NA	Solid	5035	
880-39341-3	H-13 (0-0.5')	Total/NA	Solid	5035	
880-39341-4	H-14 (0-0.5')	Total/NA	Solid	5035	
880-39341-5	H-15 (0-0.5')	Total/NA	Solid	5035	
880-39341-6	H-16 (0-0.5')	Total/NA	Solid	5035	
880-39341-7	H-17 (0-0.5')	Total/NA	Solid	5035	
880-39341-8	H-18 (0-0.5')	Total/NA	Solid	5035	
880-39341-9	H-19 (0-0.5')	Total/NA	Solid	5035	
880-39341-10	H-20 (0-0.5')	Total/NA	Solid	5035	
MB 880-73283/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73283/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73283/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39338-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-39338-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 73716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39341-1	H-11 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-2	H-12 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-3	H-13 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-4	H-14 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-5	H-15 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-6	H-16 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-7	H-17 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-8	H-18 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-9	H-19 (0-0.5')	Total/NA	Solid	8021B	73283
880-39341-10	H-20 (0-0.5')	Total/NA	Solid	8021B	73283
MB 880-73283/5-A	Method Blank	Total/NA	Solid	8021B	73283
LCS 880-73283/1-A	Lab Control Sample	Total/NA	Solid	8021B	73283
LCSD 880-73283/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73283
880-39338-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	73283
880-39338-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73283

Analysis Batch: 73883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39341-1	H-11 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-2	H-12 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-3	H-13 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-4	H-14 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-5	H-15 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-6	H-16 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-7	H-17 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-8	H-18 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-9	H-19 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39341-10	H-20 (0-0.5')	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

GC Semi VOA

Prep Batch: 73293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39341-1	H-11 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-2	H-12 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-3	H-13 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-4	H-14 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-5	H-15 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-6	H-16 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-7	H-17 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-8	H-18 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-9	H-19 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39341-10	H-20 (0-0.5')	Total/NA	Solid	8015NM Prep	
MB 880-73293/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73293/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39338-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39338-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39341-1	H-11 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-2	H-12 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-3	H-13 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-4	H-14 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-5	H-15 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-6	H-16 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-7	H-17 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-8	H-18 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-9	H-19 (0-0.5')	Total/NA	Solid	8015B NM	73293
880-39341-10	H-20 (0-0.5')	Total/NA	Solid	8015B NM	73293
MB 880-73293/1-A	Method Blank	Total/NA	Solid	8015B NM	73293
LCS 880-73293/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73293
LCSD 880-73293/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73293
880-39338-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	73293
880-39338-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73293

Analysis Batch: 73506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39341-1	H-11 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-2	H-12 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-3	H-13 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-4	H-14 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-5	H-15 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-6	H-16 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-7	H-17 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-8	H-18 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-9	H-19 (0-0.5')	Total/NA	Solid	8015 NM	
880-39341-10	H-20 (0-0.5')	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

HPLC/IC

Leach Batch: 73132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39341-1	H-11 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-2	H-12 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-3	H-13 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-4	H-14 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-5	H-15 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-6	H-16 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-7	H-17 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-8	H-18 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-9	H-19 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-10	H-20 (0-0.5')	Soluble	Solid	DI Leach	
MB 880-73132/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73132/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73132/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39341-9 MS	H-19 (0-0.5')	Soluble	Solid	DI Leach	
880-39341-9 MSD	H-19 (0-0.5')	Soluble	Solid	DI Leach	

Analysis Batch: 73257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39341-1	H-11 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-2	H-12 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-3	H-13 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-4	H-14 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-5	H-15 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-6	H-16 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-7	H-17 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-8	H-18 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-9	H-19 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-10	H-20 (0-0.5')	Soluble	Solid	300.0	73132
MB 880-73132/1-A	Method Blank	Soluble	Solid	300.0	73132
LCS 880-73132/2-A	Lab Control Sample	Soluble	Solid	300.0	73132
LCSD 880-73132/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73132
880-39341-9 MS	H-19 (0-0.5')	Soluble	Solid	300.0	73132
880-39341-9 MSD	H-19 (0-0.5')	Soluble	Solid	300.0	73132

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-11 (0-0.5')

Lab Sample ID: 880-39341-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 19:11	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 19:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 01:34	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 01:34	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 16:42	SMC	EET MID

Client Sample ID: H-12 (0-0.5')

Lab Sample ID: 880-39341-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 19:38	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 19:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 01:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 01:58	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 16:47	SMC	EET MID

Client Sample ID: H-13 (0-0.5')

Lab Sample ID: 880-39341-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 20:05	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 20:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 02:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 02:22	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 16:51	SMC	EET MID

Client Sample ID: H-14 (0-0.5')

Lab Sample ID: 880-39341-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 20:32	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 20:32	SM	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-14 (0-0.5')

Lab Sample ID: 880-39341-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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			73506	02/19/24 02:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 02:46	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 17:05	SMC	EET MID

Client Sample ID: H-15 (0-0.5')

Lab Sample ID: 880-39341-5
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 20:59	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 20:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 03:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 03:09	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 17:10	SMC	EET MID

Client Sample ID: H-16 (0-0.5')

Lab Sample ID: 880-39341-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 21:26	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 21:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 03:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 03:32	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 17:15	SMC	EET MID

Client Sample ID: H-17 (0-0.5')

Lab Sample ID: 880-39341-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 21:53	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 21:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 03:55	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 03:55	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Client Sample ID: H-17 (0-0.5')

Lab Sample ID: 880-39341-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 17:19	SMC	EET MID

Client Sample ID: H-18 (0-0.5')

Lab Sample ID: 880-39341-8
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 22:20	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 22:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 04:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 04:18	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 17:24	SMC	EET MID

Client Sample ID: H-19 (0-0.5')

Lab Sample ID: 880-39341-9
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 22:47	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 22:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 04:41	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 04:41	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 17:29	SMC	EET MID

Client Sample ID: H-20 (0-0.5')

Lab Sample ID: 880-39341-10
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73283	02/15/24 15:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73716	02/21/24 23:14	EL	EET MID
Total/NA	Analysis	Total BTEX		1			73883	02/21/24 23:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			73506	02/19/24 05:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73293	02/15/24 17:01	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/19/24 05:04	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 17:43	SMC	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea 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: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39341-1
SDG: Lea County, New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39341-1	H-11 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-2	H-12 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-3	H-13 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-4	H-14 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-5	H-15 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-6	H-16 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-7	H-17 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-8	H-18 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-9	H-19 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39341-10	H-20 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03

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Copy

880-39341 Chain of Custody

2/22/2024

Page 1 of 1

Project Manager	Clinton Merritt	Bill to. (if different)	Isaac Castro
Company Name.	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address	990 Town and Country Blvd
City State ZIP	Midland TX 79701	City, State ZIP	Houston TX 77024
Phone		Email	icastro@marathonoil com

Work Order Comments

Program UST/PST ☐ PRP ☐ rownfields ☐ RC ☐ perfund ☐

State of Project:

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

Deliverables EDD ☐ ADaPT ☐ Other

Project Name	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL 24 00354		

SAMPLE RECEIPT				
Temp Blank	Yes (No)	Wet Ice	Yes No	
Received Intact:	(Yes) No	Thermometer ID	IR8	
Cooler Custody Seals.	Yes No (N/A)	Correction Factor	-1.0	
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6	
Total Containers		Corrected Temperature	2.5	

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	Hold	Sample Comments
H-11 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-12 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-13 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-14 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-15 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-16 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-17 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-18 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-19 (0-0 5')	2/12/2024		X		G	1	X	X	X		
H-20 (0-0 5')	2/12/2024		X		G	1	X	X	X		

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
	2-13-24		02 13 24
			4:03

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Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39341-1
SDG Number: Lea County, New Mexico

Login Number: 39341
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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 2/26/2024 3:56:34 PM

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County, New Mexico

JOB NUMBER

880-39343-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

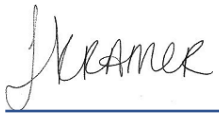
Eurofins Midland

Job Notes

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

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

Authorization



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2/26/2024 3:56:34 PM

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 880-39343-1
SDG: Lea County, New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: Nighthawk State Com #003H

Job ID: 880-39343-1

Job ID: 880-39343-1 Eurofins Midland

Job Narrative
880-39343-1

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

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

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

Receipt
The samples were received on 2/13/2024 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: H-21 (0-0.5') (880-39343-1), H-22 (0-0.5') (880-39343-2), H-23 (0-0.5') (880-39343-3), H-24 (0-0.5') (880-39343-4), H-25 (0-0.5') (880-39343-5), H-26 (0-0.5') (880-39343-6), H-27 (0-0.5') (880-39343-7), H-28 (0-0.5') (880-39343-8), H-29 (0-0.5') (880-39343-9) and H-30 (0-0.5') (880-39343-10).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-73280/5-A) and (MB 880-73291/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-73881/2-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73294 and analytical batch 880-73409 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: H-21 (0-0.5') (880-39343-1), H-22 (0-0.5') (880-39343-2), H-23 (0-0.5') (880-39343-3), H-24 (0-0.5') (880-39343-4), H-25 (0-0.5') (880-39343-5), H-26 (0-0.5') (880-39343-6), (880-39343-A-1-D MS) and (880-39343-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73294 and analytical batch 880-73409 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike duplicate (MSD) recoveries for preparation batch 880-73141 and analytical batch 880-73262 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-21 (0-0.5')

Lab Sample ID: 880-39343-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 04:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 04:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 04:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		02/15/24 15:15	02/22/24 04:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 04:12	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		02/15/24 15:15	02/22/24 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*02/15/24 15:15*	*02/22/24 04:12*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/15/24 15:15*	*02/22/24 04:12*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			02/22/24 04:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			02/18/24 10:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	50.2		mg/Kg		02/15/24 17:04	02/18/24 10:08	1
Diesel Range Organics (Over C10-C28)	<50.2	U F1	50.2		mg/Kg		02/15/24 17:04	02/18/24 10:08	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		02/15/24 17:04	02/18/24 10:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*68*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 10:08*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/15/24 17:04*	*02/18/24 10:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**135**		5.02		mg/Kg			02/15/24 18:10	1

Client Sample ID: H-22 (0-0.5')

Lab Sample ID: 880-39343-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 04:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 04:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 04:33	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:15	02/22/24 04:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 04:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:15	02/22/24 04:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*02/15/24 15:15*	*02/22/24 04:33*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/15/24 15:15*	*02/22/24 04:33*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-22 (0-0.5')

Lab Sample ID: 880-39343-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 04:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/18/24 11:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:04	02/18/24 11:13	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:04	02/18/24 11:13	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:04	02/18/24 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 11:13*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 11:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**133**		5.00		mg/Kg			02/15/24 18:15	1

Client Sample ID: H-23 (0-0.5')

Lab Sample ID: 880-39343-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 04:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 04:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 04:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/15/24 15:15	02/22/24 04:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/15/24 15:15	02/22/24 04:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/15/24 15:15	02/22/24 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*02/15/24 15:15*	*02/22/24 04:54*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*02/15/24 15:15*	*02/22/24 04:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/22/24 04:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/18/24 11:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:04	02/18/24 11:35	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:04	02/18/24 11:35	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-23 (0-0.5')

Lab Sample ID: 880-39343-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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)	<50.5	U	50.5		mg/Kg		02/15/24 17:04	02/18/24 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 11:35*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 11:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		4.99		mg/Kg			02/15/24 18:20	1

Client Sample ID: H-24 (0-0.5')

Lab Sample ID: 880-39343-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 05:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 05:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 05:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/22/24 05:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 05:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/22/24 05:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*78*		*70 - 130*	*02/15/24 15:15*	*02/22/24 05:14*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*02/15/24 15:15*	*02/22/24 05:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/22/24 05:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			02/18/24 11:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 11:57	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 11:57	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/15/24 17:04	02/18/24 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 11:57*	*1*
o-Terphenyl	*66*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 11:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**81.4**		5.04		mg/Kg			02/15/24 18:24	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-25 (0-0.5')

Lab Sample ID: 880-39343-5
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 05:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 05:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 05:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/22/24 05:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/22/24 05:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/22/24 05:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*02/15/24 15:15*	*02/22/24 05:35*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*02/15/24 15:15*	*02/22/24 05:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			02/22/24 05:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			02/18/24 12:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/15/24 17:04	02/18/24 12:20	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		02/15/24 17:04	02/18/24 12:20	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		02/15/24 17:04	02/18/24 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 12:20*	*1*
o-Terphenyl	*70*		*70 - 130*	*02/15/24 17:04*	*02/18/24 12:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**264**		5.02		mg/Kg			02/15/24 18:29	1

Client Sample ID: H-26 (0-0.5')

Lab Sample ID: 880-39343-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 05:56	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 05:56	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 05:56	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		02/15/24 15:15	02/22/24 05:56	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 05:56	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		02/15/24 15:15	02/22/24 05:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/15/24 15:15*	*02/22/24 05:56*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/15/24 15:15*	*02/22/24 05:56*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-26 (0-0.5')

Lab Sample ID: 880-39343-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			02/22/24 05:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			02/18/24 12:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		02/15/24 17:04	02/18/24 12:42	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		02/15/24 17:04	02/18/24 12:42	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		02/15/24 17:04	02/18/24 12:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*69*	*S1-*	*70 - 130*	*02/15/24 17:04*	*02/18/24 12:42*	*1*
o-Terphenyl	*71*		*70 - 130*	*02/15/24 17:04*	*02/18/24 12:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**221**	**F1**	4.99		mg/Kg			02/15/24 16:16	1

Client Sample ID: H-27 (0-0.5')

Lab Sample ID: 880-39343-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:15	02/22/24 06:16	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:15	02/22/24 06:16	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:15	02/22/24 06:16	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/15/24 15:15	02/22/24 06:16	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/15/24 15:15	02/22/24 06:16	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/15/24 15:15	02/22/24 06:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*02/15/24 15:15*	*02/22/24 06:16*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*02/15/24 15:15*	*02/22/24 06:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/22/24 06:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			02/18/24 13:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		02/15/24 17:04	02/18/24 13:04	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		02/15/24 17:04	02/18/24 13:04	1

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Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-27 (0-0.5')

Lab Sample ID: 880-39343-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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)	<50.3	U	50.3		mg/Kg		02/15/24 17:04	02/18/24 13:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:04*	*02/18/24 13:04*	*1*
o-Terphenyl	*73*		*70 - 130*	*02/15/24 17:04*	*02/18/24 13:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.8**		5.02		mg/Kg			02/15/24 16:36	1

Client Sample ID: H-28 (0-0.5')

Lab Sample ID: 880-39343-8
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 06:37	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 06:37	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 06:37	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/15/24 15:15	02/22/24 06:37	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/15/24 15:15	02/22/24 06:37	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/15/24 15:15	02/22/24 06:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/15/24 15:15*	*02/22/24 06:37*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*02/15/24 15:15*	*02/22/24 06:37*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/22/24 06:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/18/24 13:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		02/15/24 17:04	02/18/24 13:27	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		02/15/24 17:04	02/18/24 13:27	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/15/24 17:04	02/18/24 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*02/15/24 17:04*	*02/18/24 13:27*	*1*
o-Terphenyl	*76*		*70 - 130*	*02/15/24 17:04*	*02/18/24 13:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50.8**		5.00		mg/Kg			02/15/24 16:43	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-29 (0-0.5')

Lab Sample ID: 880-39343-9
Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:30	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/22/24 15:27	02/23/24 08:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:30	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/22/24 15:27	02/23/24 08:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*02/22/24 15:27*	*02/23/24 08:30*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*02/22/24 15:27*	*02/23/24 08:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/23/24 08:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/18/24 13:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/15/24 17:04	02/18/24 13:50	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		02/15/24 17:04	02/18/24 13:50	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/15/24 17:04	02/18/24 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*02/15/24 17:04*	*02/18/24 13:50*	*1*
o-Terphenyl	*90*		*70 - 130*	*02/15/24 17:04*	*02/18/24 13:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**135**		5.05		mg/Kg			02/15/24 16:50	1

Client Sample ID: H-30 (0-0.5')

Lab Sample ID: 880-39343-10
Date Collected: 02/12/24 00:00
Matrix: Solid
Date Received: 02/13/24 16:03

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/22/24 15:27	02/23/24 08:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/22/24 15:27	02/23/24 08:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/22/24 15:27	02/23/24 08:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/22/24 15:27	02/23/24 08:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/22/24 15:27	02/23/24 08:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/22/24 15:27	02/23/24 08:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*02/22/24 15:27*	*02/23/24 08:56*	*1*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*	*02/22/24 15:27*	*02/23/24 08:56*	*1*

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Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-30 (0-0.5')

Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Lab Sample ID: 880-39343-10

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			02/23/24 08:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			02/18/24 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/15/24 17:04	02/18/24 14:12	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		02/15/24 17:04	02/18/24 14:12	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		02/15/24 17:04	02/18/24 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*02/15/24 17:04*	*02/18/24 14:12*	*1*
o-Terphenyl	*74*		*70 - 130*	*02/15/24 17:04*	*02/18/24 14:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**185**		5.04		mg/Kg			02/15/24 16:57	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea 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)
880-39339-A-1-B MS	Matrix Spike	99	98
880-39339-A-1-C MSD	Matrix Spike Duplicate	96	117
880-39343-1	H-21 (0-0.5')	79	95
880-39343-2	H-22 (0-0.5')	84	94
880-39343-3	H-23 (0-0.5')	80	86
880-39343-4	H-24 (0-0.5')	78	82
880-39343-5	H-25 (0-0.5')	80	83
880-39343-6	H-26 (0-0.5')	89	92
880-39343-7	H-27 (0-0.5')	91	89
880-39343-8	H-28 (0-0.5')	89	84
880-39343-9	H-29 (0-0.5')	96	92
880-39343-9 MS	H-29 (0-0.5')	96	103
880-39343-9 MSD	H-29 (0-0.5')	117	128
880-39343-10	H-30 (0-0.5')	117	126
LCS 880-73280/1-A	Lab Control Sample	104	120
LCS 880-73881/1-A	Lab Control Sample	108	117
LCSD 880-73280/2-A	Lab Control Sample Dup	98	121
LCSD 880-73881/2-A	Lab Control Sample Dup	136 S1+	123
MB 880-73280/5-A	Method Blank	65 S1-	107
MB 880-73289/5-A	Method Blank	62 S1-	132 S1+
MB 880-73291/5-A	Method Blank	65 S1-	104
MB 880-73881/5-A	Method Blank	70	113

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-39343-1	H-21 (0-0.5')	68 S1-	71
880-39343-1 MS	H-21 (0-0.5')	68 S1-	65 S1-
880-39343-1 MSD	H-21 (0-0.5')	67 S1-	64 S1-
880-39343-2	H-22 (0-0.5')	66 S1-	69 S1-
880-39343-3	H-23 (0-0.5')	66 S1-	68 S1-
880-39343-4	H-24 (0-0.5')	66 S1-	66 S1-
880-39343-5	H-25 (0-0.5')	69 S1-	70
880-39343-6	H-26 (0-0.5')	69 S1-	71
880-39343-7	H-27 (0-0.5')	72	73
880-39343-8	H-28 (0-0.5')	76	76
880-39343-9	H-29 (0-0.5')	85	90
880-39343-10	H-30 (0-0.5')	72	74
LCS 880-73294/2-A	Lab Control Sample	104	123
LCSD 880-73294/3-A	Lab Control Sample Dup	88	102
MB 880-73294/1-A - RA2	Method Blank	162 S1+	178 S1+

Surrogate Legend

1CO = 1-Chlorooctane

Surrogate Summary

Client: Carmona Resources
Job ID: 880-39343-1
Project/Site: Nighthawk State Com #003H
SDG: Lea County, New Mexico

OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73280/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:15	02/21/24 23:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:15	02/21/24 23:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/15/24 15:15*	*02/21/24 23:19*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/15/24 15:15*	*02/21/24 23:19*	*1*

Lab Sample ID: LCS 880-73280/1-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73280

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1189		mg/Kg		119	70 - 130		
Toluene			0.100	0.1009		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.09553		mg/Kg		96	70 - 130		
m-Xylene & p-Xylene			0.200	0.2244		mg/Kg		112	70 - 130		
o-Xylene			0.100	0.1094		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

Lab Sample ID: LCSD 880-73280/2-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73280

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1062		mg/Kg		106	70 - 130	11	35
Toluene			0.100	0.08697		mg/Kg		87	70 - 130	15	35
Ethylbenzene			0.100	0.07327		mg/Kg		73	70 - 130	26	35
m-Xylene & p-Xylene			0.200	0.1630		mg/Kg		81	70 - 130	32	35
o-Xylene			0.100	0.09654		mg/Kg		97	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*

Lab Sample ID: 880-39339-A-1-B MS
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.100	0.09547		mg/Kg		95	70 - 130		
Toluene	<0.00199	U	0.100	0.08946		mg/Kg		89	70 - 130		

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

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

Lab Sample ID: 880-39339-A-1-B MS
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.07867		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1779		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.100	0.08661		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-39339-A-1-C MSD
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.08939		mg/Kg		89	70 - 130	7	35
Toluene	<0.00199	U	0.101	0.08205		mg/Kg		82	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.101	0.08116		mg/Kg		81	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1649		mg/Kg		82	70 - 130	8	35
o-Xylene	<0.00199	U	0.101	0.08041		mg/Kg		80	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: MB 880-73289/5-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 15:58	02/22/24 18:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 15:58	02/22/24 18:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*02/15/24 15:58*	*02/22/24 18:16*	*1*

Lab Sample ID: MB 880-73291/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/15/24 16:02	02/21/24 11:26	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

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

Lab Sample ID: MB 880-73291/5-A
Matrix: Solid
Analysis Batch: 73714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/15/24 16:02	02/21/24 11:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/15/24 16:02	02/21/24 11:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*65*	*S1-*	*70 - 130*	*02/15/24 16:02*	*02/21/24 11:26*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*02/15/24 16:02*	*02/21/24 11:26*	*1*

Lab Sample ID: MB 880-73881/5-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73881

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/22/24 15:27	02/23/24 08:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/22/24 15:27	02/23/24 08:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*02/22/24 15:27*	*02/23/24 08:04*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/22/24 15:27*	*02/23/24 08:04*	*1*

Lab Sample ID: LCS 880-73881/1-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73881

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09462		mg/Kg		95	70 - 130
Toluene	0.100	0.09802		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.08353		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	0.200	0.1861		mg/Kg		93	70 - 130
o-Xylene	0.100	0.08806		mg/Kg		88	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: LCSD 880-73881/2-A
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73881

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09832		mg/Kg		98	70 - 130	4	35
Toluene	0.100	0.1095		mg/Kg		110	70 - 130	11	35
Ethylbenzene	0.100	0.1098		mg/Kg		110	70 - 130	27	35
m-Xylene & p-Xylene	0.200	0.2145		mg/Kg		107	70 - 130	14	35
o-Xylene	0.100	0.09264		mg/Kg		93	70 - 130	5	35

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1,4-Difluorobenzene (Surr)	123		70 - 130

Lab Sample ID: 880-39343-9 MS
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: H-29 (0-0.5')
Prep Type: Total/NA
Prep Batch: 73881

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0996	0.1129		mg/Kg		113	70 - 130
Toluene	<0.00200	U	0.0996	0.09076		mg/Kg		91	70 - 130
Ethylbenzene	<0.00200	U	0.0996	0.1035		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2095		mg/Kg		105	70 - 130
o-Xylene	<0.00200	U	0.0996	0.09231		mg/Kg		93	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: 880-39343-9 MSD
Matrix: Solid
Analysis Batch: 73858

Client Sample ID: H-29 (0-0.5')
Prep Type: Total/NA
Prep Batch: 73881

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.1058		mg/Kg		105	70 - 130	7	35
Toluene	<0.00200	U	0.101	0.09862		mg/Kg		98	70 - 130	8	35
Ethylbenzene	<0.00200	U	0.101	0.09871		mg/Kg		98	70 - 130	5	35
m-Xylene & p-Xylene	<0.00399	U	0.202	0.2151		mg/Kg		107	70 - 130	3	35
o-Xylene	<0.00200	U	0.101	0.1037		mg/Kg		103	70 - 130	12	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	128		70 - 130

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

Lab Sample ID: LCS 880-73294/2-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73294

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	922.7		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1070		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	123		70 - 130

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

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

Lab Sample ID: LCSD 880-73294/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	962.2		mg/Kg		96	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	970.8		mg/Kg		97	70 - 130	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 880-39343-1 MS — **Client Sample ID: H-21 (0-0.5')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.2	U F1	1010	642.8	F1	mg/Kg		60	70 - 130
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	660.0	F1	mg/Kg		63	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*68*	*S1-*	*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

Lab Sample ID: 880-39343-1 MSD — **Client Sample ID: H-21 (0-0.5')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

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	<50.2	U F1	1010	645.6	F1	mg/Kg		60	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.2	U F1	1010	657.6	F1	mg/Kg		62	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*67*	*S1-*	*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-73294/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73409 — **Prep Batch: 73294**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1
OII Range Organics (Over C28-C36) - RA2	<50.0	U	50.0		mg/Kg		02/15/24 17:04	02/18/24 07:37	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2 (Continued)

Lab Sample ID: MB 880-73294/1-A
Matrix: Solid
Analysis Batch: 73409

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73294

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane - RA2	162	S1+	70 - 130	02/15/24 17:04	02/18/24 07:37	1
o-Terphenyl - RA2	178	S1+	70 - 130	02/15/24 17:04	02/18/24 07:37	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73132/1-A
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 16:10	1

Lab Sample ID: LCS 880-73132/2-A
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	235.2		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-73132/3-A
Matrix: Solid
Analysis Batch: 73257

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	236.4		mg/Kg		95	90 - 110	1	20

Lab Sample ID: 880-39341-A-9-B MS
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	626		251	857.4		mg/Kg		92	90 - 110

Lab Sample ID: 880-39341-A-9-C MSD
Matrix: Solid
Analysis Batch: 73257

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	626		251	866.1		mg/Kg		96	90 - 110	1	20

Lab Sample ID: MB 880-73141/1-A
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			02/15/24 15:55	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-73141/2-A
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.4		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-73141/3-A
Matrix: Solid
Analysis Batch: 73262

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

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

Lab Sample ID: 880-39343-6 MS
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: H-26 (0-0.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	221	F1	250	444.3		mg/Kg		90	90 - 110		

Lab Sample ID: 880-39343-6 MSD
Matrix: Solid
Analysis Batch: 73262

Client Sample ID: H-26 (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	221	F1	250	424.9	F1	mg/Kg		82	90 - 110	4	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

GC VOA

Prep Batch: 73280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-1	H-21 (0-0.5')	Total/NA	Solid	5035	
880-39343-2	H-22 (0-0.5')	Total/NA	Solid	5035	
880-39343-3	H-23 (0-0.5')	Total/NA	Solid	5035	
880-39343-4	H-24 (0-0.5')	Total/NA	Solid	5035	
880-39343-5	H-25 (0-0.5')	Total/NA	Solid	5035	
880-39343-6	H-26 (0-0.5')	Total/NA	Solid	5035	
880-39343-7	H-27 (0-0.5')	Total/NA	Solid	5035	
880-39343-8	H-28 (0-0.5')	Total/NA	Solid	5035	
MB 880-73280/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73280/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73280/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39339-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-39339-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 73289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73289/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73291/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 73714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-1	H-21 (0-0.5')	Total/NA	Solid	8021B	73280
880-39343-2	H-22 (0-0.5')	Total/NA	Solid	8021B	73280
880-39343-3	H-23 (0-0.5')	Total/NA	Solid	8021B	73280
880-39343-4	H-24 (0-0.5')	Total/NA	Solid	8021B	73280
880-39343-5	H-25 (0-0.5')	Total/NA	Solid	8021B	73280
880-39343-6	H-26 (0-0.5')	Total/NA	Solid	8021B	73280
880-39343-7	H-27 (0-0.5')	Total/NA	Solid	8021B	73280
880-39343-8	H-28 (0-0.5')	Total/NA	Solid	8021B	73280
MB 880-73280/5-A	Method Blank	Total/NA	Solid	8021B	73280
MB 880-73291/5-A	Method Blank	Total/NA	Solid	8021B	73291
LCS 880-73280/1-A	Lab Control Sample	Total/NA	Solid	8021B	73280
LCSD 880-73280/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73280
880-39339-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	73280
880-39339-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	73280

Analysis Batch: 73856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-1	H-21 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-2	H-22 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-3	H-23 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-4	H-24 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-5	H-25 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-6	H-26 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-7	H-27 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-8	H-28 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-9	H-29 (0-0.5')	Total/NA	Solid	Total BTEX	
880-39343-10	H-30 (0-0.5')	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

GC VOA

Analysis Batch: 73858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-9	H-29 (0-0.5')	Total/NA	Solid	8021B	73881
880-39343-10	H-30 (0-0.5')	Total/NA	Solid	8021B	73881
MB 880-73289/5-A	Method Blank	Total/NA	Solid	8021B	73289
MB 880-73881/5-A	Method Blank	Total/NA	Solid	8021B	73881
LCS 880-73881/1-A	Lab Control Sample	Total/NA	Solid	8021B	73881
LCSD 880-73881/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73881
880-39343-9 MS	H-29 (0-0.5')	Total/NA	Solid	8021B	73881
880-39343-9 MSD	H-29 (0-0.5')	Total/NA	Solid	8021B	73881

Prep Batch: 73881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-9	H-29 (0-0.5')	Total/NA	Solid	5035	
880-39343-10	H-30 (0-0.5')	Total/NA	Solid	5035	
MB 880-73881/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73881/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73881/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-39343-9 MS	H-29 (0-0.5')	Total/NA	Solid	5035	
880-39343-9 MSD	H-29 (0-0.5')	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 73294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-1	H-21 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-2	H-22 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-3	H-23 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-4	H-24 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-5	H-25 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-6	H-26 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-7	H-27 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-8	H-28 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-9	H-29 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-10	H-30 (0-0.5')	Total/NA	Solid	8015NM Prep	
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39343-1 MS	H-21 (0-0.5')	Total/NA	Solid	8015NM Prep	
880-39343-1 MSD	H-21 (0-0.5')	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-1	H-21 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-2	H-22 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-3	H-23 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-4	H-24 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-5	H-25 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-6	H-26 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-7	H-27 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-8	H-28 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-9	H-29 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-10	H-30 (0-0.5')	Total/NA	Solid	8015B NM	73294

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

GC Semi VOA (Continued)

Analysis Batch: 73409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73294/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	73294
LCS 880-73294/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73294
LCSD 880-73294/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73294
880-39343-1 MS	H-21 (0-0.5')	Total/NA	Solid	8015B NM	73294
880-39343-1 MSD	H-21 (0-0.5')	Total/NA	Solid	8015B NM	73294

Analysis Batch: 73500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-1	H-21 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-2	H-22 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-3	H-23 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-4	H-24 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-5	H-25 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-6	H-26 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-7	H-27 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-8	H-28 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-9	H-29 (0-0.5')	Total/NA	Solid	8015 NM	
880-39343-10	H-30 (0-0.5')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-1	H-21 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-2	H-22 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-3	H-23 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-4	H-24 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-5	H-25 (0-0.5')	Soluble	Solid	DI Leach	
MB 880-73132/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73132/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73132/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39341-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-39341-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 73141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-6	H-26 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-7	H-27 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-8	H-28 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-9	H-29 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-10	H-30 (0-0.5')	Soluble	Solid	DI Leach	
MB 880-73141/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73141/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73141/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39343-6 MS	H-26 (0-0.5')	Soluble	Solid	DI Leach	
880-39343-6 MSD	H-26 (0-0.5')	Soluble	Solid	DI Leach	

Analysis Batch: 73257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-1	H-21 (0-0.5')	Soluble	Solid	300.0	73132
880-39343-2	H-22 (0-0.5')	Soluble	Solid	300.0	73132

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

HPLC/IC (Continued)

Analysis Batch: 73257 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-3	H-23 (0-0.5')	Soluble	Solid	300.0	73132
880-39343-4	H-24 (0-0.5')	Soluble	Solid	300.0	73132
880-39343-5	H-25 (0-0.5')	Soluble	Solid	300.0	73132
MB 880-73132/1-A	Method Blank	Soluble	Solid	300.0	73132
LCS 880-73132/2-A	Lab Control Sample	Soluble	Solid	300.0	73132
LCSD 880-73132/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73132
880-39341-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	73132
880-39341-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73132

Analysis Batch: 73262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39343-6	H-26 (0-0.5')	Soluble	Solid	300.0	73141
880-39343-7	H-27 (0-0.5')	Soluble	Solid	300.0	73141
880-39343-8	H-28 (0-0.5')	Soluble	Solid	300.0	73141
880-39343-9	H-29 (0-0.5')	Soluble	Solid	300.0	73141
880-39343-10	H-30 (0-0.5')	Soluble	Solid	300.0	73141
MB 880-73141/1-A	Method Blank	Soluble	Solid	300.0	73141
LCS 880-73141/2-A	Lab Control Sample	Soluble	Solid	300.0	73141
LCSD 880-73141/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73141
880-39343-6 MS	H-26 (0-0.5')	Soluble	Solid	300.0	73141
880-39343-6 MSD	H-26 (0-0.5')	Soluble	Solid	300.0	73141

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-21 (0-0.5')

Lab Sample ID: 880-39343-1
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 04:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/22/24 04:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 10:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 10:08	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 18:10	SMC	EET MID

Client Sample ID: H-22 (0-0.5')

Lab Sample ID: 880-39343-2
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 04:33	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/22/24 04:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 11:13	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 11:13	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 18:15	SMC	EET MID

Client Sample ID: H-23 (0-0.5')

Lab Sample ID: 880-39343-3
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 04:54	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/22/24 04:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 11:35	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 11:35	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 18:20	SMC	EET MID

Client Sample ID: H-24 (0-0.5')

Lab Sample ID: 880-39343-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 05:14	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/22/24 05:14	SM	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-24 (0-0.5')

Lab Sample ID: 880-39343-4
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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			73500	02/18/24 11:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 11:57	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 18:24	SMC	EET MID

Client Sample ID: H-25 (0-0.5')

Lab Sample ID: 880-39343-5
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 05:35	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/22/24 05:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 12:20	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73132	02/14/24 10:04	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73257	02/15/24 18:29	SMC	EET MID

Client Sample ID: H-26 (0-0.5')

Lab Sample ID: 880-39343-6
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 05:56	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/22/24 05:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 12:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 12:42	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 16:16	SMC	EET MID

Client Sample ID: H-27 (0-0.5')

Lab Sample ID: 880-39343-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 06:16	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/22/24 06:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 13:04	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 13:04	SM	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Client Sample ID: H-27 (0-0.5')

Lab Sample ID: 880-39343-7
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 16:36	SMC	EET MID

Client Sample ID: H-28 (0-0.5')

Lab Sample ID: 880-39343-8
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73280	02/15/24 15:15	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73714	02/22/24 06:37	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/22/24 06:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 13:27	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 13:27	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 16:43	SMC	EET MID

Client Sample ID: H-29 (0-0.5')

Lab Sample ID: 880-39343-9
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73881	02/22/24 15:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 08:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/23/24 08:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 13:50	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 13:50	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 16:50	SMC	EET MID

Client Sample ID: H-30 (0-0.5')

Lab Sample ID: 880-39343-10
Matrix: Solid
Date Collected: 02/12/24 00:00
Date Received: 02/13/24 16:03

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	73881	02/22/24 15:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73858	02/23/24 08:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73856	02/23/24 08:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			73500	02/18/24 14:12	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73294	02/15/24 17:04	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73409	02/18/24 14:12	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73141	02/14/24 11:30	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	73262	02/15/24 16:57	SMC	EET MID

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea 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: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 880-39343-1
SDG: Lea County, New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39343-1	H-21 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-2	H-22 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-3	H-23 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-4	H-24 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-5	H-25 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-6	H-26 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-7	H-27 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-8	H-28 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-9	H-29 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03
880-39343-10	H-30 (0-0.5')	Solid	02/12/24 00:00	02/13/24 16:03

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2/26/2024

880-39343 Chain of Custody

Page 1 of 1

Project Manager	Clinton Merritt	Bill to (if different)	Isaac Castro
Company Name	Carmona Resources	Company Name	Marathon Oil Corporation
Address	310 W Wall St Ste 500	Address.	990 Town and Country Blvd
City, State ZIP	Midland TX 79701	City State ZIP	Houston TX 77024
Phone	Email		icastro@marathonoil com

Work Order Comments

Program UST/PST ☐ PRP ☐ rownfields ☐ RC ☐ perfund ☐

State of Project:

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

Deliverables EDD ☐ ADaPT ☐ Other

Project Name	Nighthawk State Com #003H	Turn Around	
Project Number	2255	☑ Routine ☐ Rush	
Project Location	Lea County, New Mexico	Due Date	5 day
Sampler's Name	CCM		
PO #:	CL.24 00354		

SAMPLE RECEIPT			
Temp Blank.	Yes (No)	Wet Ice	Yes No
Received Intact:	(Yes) No	Thermometer ID	RIS
Cooler Custody Seals	Yes No (N/A)	Correction Factor	-1.0
Sample Custody Seals	Yes No (N/A)	Temperature Reading	2.6
Total Containers		Corrected Temperature	2.5

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	Pres. Code	Parameters: BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300 0	Hold	Sample Comments
H-21 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-22 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-23 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-24 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-25 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-26 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-27 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-28 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-29 (0-0 5')	2/12/2024		X		G	1		X	X	X		
H-30 (0-0 5')	2/12/2024		X		G	1		X	X	X		

Comments Email results to Mike Carmona mcarmona@carmonaresources com, Conner Moehring cmoehring@carmonaresources com, Clint Merritt MerrittC@carmonaresources com

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
			07-13 7 1
	2-13-24		4 03

Received by OCD: 3/27/2024 4:56:13 PM

Released to Imaging: 5/1/2024 11:11:02 AM

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 880-39343-1
SDG Number: Lea County, New Mexico

Login Number: 39343
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: Clint Merritt
Carmona Resources
310 W Wall St
Ste 500
Midland, Texas 79701

Generated 3/19/2024 2:18:47 PM Revision 1

JOB DESCRIPTION

Nighthawk State Com #003H
Lea County New Mexico

JOB NUMBER

890-6331-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

Released to Imaging: 3/1/2024 11:11:02 AM

my EOL

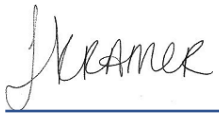
Eurofins Carlsbad

Job Notes

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

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

Authorization



Generated
3/19/2024 2:18:47 PM
Revision 1

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

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Laboratory Job ID: 890-6331-1
SDG: Lea County New Mexico

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Definitions/Glossary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low 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.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
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: Carmona Resources
Project: Nighthawk State Com #003H

Job ID: 890-6331-1

Job ID: 890-6331-1 Eurofins Carlsbad

Job Narrative
890-6331-1

REVISION

The report being provided is a revision of the original report sent on 3/14/2024. The report (revision 1) is being revised due to Per client email to rerun sample 001 (H-7) for CL.

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

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

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

Receipt
The samples were received on 3/7/2024 4:09 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: H-7 (0-0.5') (890-6331-1), H-9 (0-0.5') (890-6331-2), H-16 (0-0.5') (890-6331-3), H-17 (0-0.5') (890-6331-4), H-18 (0-0.5') (890-6331-5) and H-19 (0-0.5') (890-6331-6).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-75298 and 880-75467 and analytical batch 880-75462 was outside the upper control limits.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-75467 and analytical batch 880-75462 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-75426 and analytical batch 880-75449 was outside the upper control limits.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-75426 and analytical batch 880-75449 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-75233 and analytical batch 880-75325 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: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Client Sample ID: H-7 (0-0.5')

Lab Sample ID: 890-6331-1
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201		mg/Kg		03/13/24 10:37	03/14/24 12:29	1
Toluene	<0.00201	U *1 *-	0.00201		mg/Kg		03/13/24 10:37	03/14/24 12:29	1
Ethylbenzene	<0.00201	U *1 *-	0.00201		mg/Kg		03/13/24 10:37	03/14/24 12:29	1
m-Xylene & p-Xylene	<0.00402	U *1 *-	0.00402		mg/Kg		03/13/24 10:37	03/14/24 12:29	1
o-Xylene	<0.00201	U *1 *-	0.00201		mg/Kg		03/13/24 10:37	03/14/24 12:29	1
Xylenes, Total	<0.00402	U *1 *-	0.00402		mg/Kg		03/13/24 10:37	03/14/24 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*03/13/24 10:37*	*03/14/24 12:29*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*03/13/24 10:37*	*03/14/24 12:29*	*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			03/14/24 12:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			03/13/24 12:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		03/12/24 15:19	03/13/24 12:44	1
Diesel Range Organics (Over C10-C28)	<50.5	U *1	50.5		mg/Kg		03/12/24 15:19	03/13/24 12:44	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		03/12/24 15:19	03/13/24 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/12/24 15:19*	*03/13/24 12:44*	*1*
o-Terphenyl	*87*		*70 - 130*	*03/12/24 15:19*	*03/13/24 12:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**496**		5.04		mg/Kg			03/18/24 22:31	1

Client Sample ID: H-9 (0-0.5')

Lab Sample ID: 890-6331-2
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 12:50	1
Toluene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 12:50	1
Ethylbenzene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 12:50	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399		mg/Kg		03/13/24 10:37	03/14/24 12:50	1
o-Xylene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 12:50	1
Xylenes, Total	<0.00399	U *- *1	0.00399		mg/Kg		03/13/24 10:37	03/14/24 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*03/13/24 10:37*	*03/14/24 12:50*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*03/13/24 10:37*	*03/14/24 12:50*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Client Sample ID: H-9 (0-0.5')

Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

Lab Sample ID: 890-6331-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/14/24 12:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/13/24 13:05	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		03/12/24 15:19	03/13/24 13:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/12/24 15:19	03/13/24 13:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/12/24 15:19	03/13/24 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*03/12/24 15:19*	*03/13/24 13:05*	*1*
o-Terphenyl	*97*		*70 - 130*	*03/12/24 15:19*	*03/13/24 13:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**349**		5.04		mg/Kg			03/11/24 20:29	1

Client Sample ID: H-16 (0-0.5')

Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

Lab Sample ID: 890-6331-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201		mg/Kg		03/13/24 10:37	03/14/24 13:10	1
Toluene	<0.00201	U *- *1	0.00201		mg/Kg		03/13/24 10:37	03/14/24 13:10	1
Ethylbenzene	<0.00201	U *- *1	0.00201		mg/Kg		03/13/24 10:37	03/14/24 13:10	1
m-Xylene & p-Xylene	<0.00402	U *- *1	0.00402		mg/Kg		03/13/24 10:37	03/14/24 13:10	1
o-Xylene	<0.00201	U *- *1	0.00201		mg/Kg		03/13/24 10:37	03/14/24 13:10	1
Xylenes, Total	<0.00402	U *- *1	0.00402		mg/Kg		03/13/24 10:37	03/14/24 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/13/24 10:37*	*03/14/24 13:10*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*03/13/24 10:37*	*03/14/24 13:10*	*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			03/14/24 13:10	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			03/13/24 13:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/12/24 15:19	03/13/24 13:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/12/24 15:19	03/13/24 13:26	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Client Sample ID: H-16 (0-0.5')

Lab Sample ID: 890-6331-3
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/12/24 15:19	03/13/24 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/12/24 15:19*	*03/13/24 13:26*	*1*
o-Terphenyl	*79*		*70 - 130*	*03/12/24 15:19*	*03/13/24 13:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.8**		4.96		mg/Kg			03/11/24 20:33	1

Client Sample ID: H-17 (0-0.5')

Lab Sample ID: 890-6331-4
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 13:31	1
Toluene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 13:31	1
Ethylbenzene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 13:31	1
m-Xylene & p-Xylene	<0.00401	U *- *1	0.00401		mg/Kg		03/13/24 10:37	03/14/24 13:31	1
o-Xylene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 13:31	1
Xylenes, Total	<0.00401	U *- *1	0.00401		mg/Kg		03/13/24 10:37	03/14/24 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/13/24 10:37*	*03/14/24 13:31*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*03/13/24 10:37*	*03/14/24 13:31*	*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			03/14/24 13:31	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			03/13/24 13:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		03/12/24 15:19	03/13/24 13:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		03/12/24 15:19	03/13/24 13:48	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/12/24 15:19	03/13/24 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*03/12/24 15:19*	*03/13/24 13:48*	*1*
o-Terphenyl	*91*		*70 - 130*	*03/12/24 15:19*	*03/13/24 13:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**218**		5.03		mg/Kg			03/11/24 20:38	1

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Client Sample ID: H-18 (0-0.5')

Lab Sample ID: 890-6331-5
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *1	0.00199		mg/Kg		03/13/24 10:37	03/14/24 13:51	1
Toluene	<0.00199	U *- *1	0.00199		mg/Kg		03/13/24 10:37	03/14/24 13:51	1
Ethylbenzene	<0.00199	U *- *1	0.00199		mg/Kg		03/13/24 10:37	03/14/24 13:51	1
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398		mg/Kg		03/13/24 10:37	03/14/24 13:51	1
o-Xylene	<0.00199	U *- *1	0.00199		mg/Kg		03/13/24 10:37	03/14/24 13:51	1
Xylenes, Total	<0.00398	U *- *1	0.00398		mg/Kg		03/13/24 10:37	03/14/24 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/13/24 10:37*	*03/14/24 13:51*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/13/24 10:37*	*03/14/24 13:51*	*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			03/14/24 13:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5		mg/Kg			03/13/24 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.5	U	49.5		mg/Kg		03/12/24 15:19	03/13/24 14:09	1
Diesel Range Organics (Over C10-C28)	<49.5	U *1	49.5		mg/Kg		03/12/24 15:19	03/13/24 14:09	1
Oil Range Organics (Over C28-C36)	<49.5	U	49.5		mg/Kg		03/12/24 15:19	03/13/24 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*03/12/24 15:19*	*03/13/24 14:09*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/12/24 15:19*	*03/13/24 14:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**396**		5.01		mg/Kg			03/11/24 20:42	1

Client Sample ID: H-19 (0-0.5')

Lab Sample ID: 890-6331-6
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 14:12	1
Toluene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 14:12	1
Ethylbenzene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 14:12	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399		mg/Kg		03/13/24 10:37	03/14/24 14:12	1
o-Xylene	<0.00200	U *- *1	0.00200		mg/Kg		03/13/24 10:37	03/14/24 14:12	1
Xylenes, Total	<0.00399	U *- *1	0.00399		mg/Kg		03/13/24 10:37	03/14/24 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/13/24 10:37*	*03/14/24 14:12*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*03/13/24 10:37*	*03/14/24 14:12*	*1*

Client Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Client Sample ID: H-19 (0-0.5')

Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

Lab Sample ID: 890-6331-6

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			03/14/24 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/13/24 14:51	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		03/12/24 15:19	03/13/24 14:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/12/24 15:19	03/13/24 14:51	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/12/24 15:19	03/13/24 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*03/12/24 15:19*	*03/13/24 14:51*	*1*
o-Terphenyl	*88*		*70 - 130*	*03/12/24 15:19*	*03/13/24 14:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**207**		5.02		mg/Kg			03/11/24 20:58	1

Surrogate Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea 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)
890-6331-1	H-7 (0-0.5')	84	112
890-6331-1 MS	H-7 (0-0.5')	98	95
890-6331-1 MSD	H-7 (0-0.5')	102	105
890-6331-2	H-9 (0-0.5')	97	117
890-6331-3	H-16 (0-0.5')	109	106
890-6331-4	H-17 (0-0.5')	104	109
890-6331-5	H-18 (0-0.5')	110	102
890-6331-6	H-19 (0-0.5')	109	104
LCS 880-75467/2-A	Lab Control Sample	104	112
LCSD 880-75467/3-A	Lab Control Sample Dup	112	108
MB 880-75298/5-A	Method Blank	145 S1+	134 S1+
MB 880-75467/1-A	Method Blank	140 S1+	131 S1+

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-40636-A-1-B MS	Matrix Spike	112	87
880-40636-A-1-C MSD	Matrix Spike Duplicate	116	88
890-6331-1	H-7 (0-0.5')	108	87
890-6331-2	H-9 (0-0.5')	116	97
890-6331-3	H-16 (0-0.5')	95	79
890-6331-4	H-17 (0-0.5')	110	91
890-6331-5	H-18 (0-0.5')	128	106
890-6331-6	H-19 (0-0.5')	105	88
LCS 880-75426/2-A	Lab Control Sample	113	122
LCSD 880-75426/3-A	Lab Control Sample Dup	88	92
MB 880-75426/1-A	Method Blank	153 S1+	140 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-75298/5-A
Matrix: Solid
Analysis Batch: 75462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 75298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/11/24 14:41	03/14/24 00:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/11/24 14:41	03/14/24 00:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/11/24 14:41	03/14/24 00:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/11/24 14:41	03/14/24 00:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/11/24 14:41	03/14/24 00:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/11/24 14:41	03/14/24 00:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*145*	*S1+*	*70 - 130*	*03/11/24 14:41*	*03/14/24 00:12*	*1*
1,4-Difluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*03/11/24 14:41*	*03/14/24 00:12*	*1*

Lab Sample ID: MB 880-75467/1-A
Matrix: Solid
Analysis Batch: 75462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 75467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/13/24 10:37	03/14/24 12:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/13/24 10:37	03/14/24 12:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/13/24 10:37	03/14/24 12:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/13/24 10:37	03/14/24 12:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/13/24 10:37	03/14/24 12:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/13/24 10:37	03/14/24 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*140*	*S1+*	*70 - 130*	*03/13/24 10:37*	*03/14/24 12:01*	*1*
1,4-Difluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*03/13/24 10:37*	*03/14/24 12:01*	*1*

Lab Sample ID: LCS 880-75467/2-A
Matrix: Solid
Analysis Batch: 75462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 75467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08990		mg/Kg		90	70 - 130
Toluene	0.100	0.04861	*-	mg/Kg		49	70 - 130
Ethylbenzene	0.100	0.03155	*-	mg/Kg		32	70 - 130
m-Xylene & p-Xylene	0.200	0.06747	*-	mg/Kg		34	70 - 130
o-Xylene	0.100	0.04076	*-	mg/Kg		41	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: LCSD 880-75467/3-A
Matrix: Solid
Analysis Batch: 75462

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 75467

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1299	*1	mg/Kg		130	70 - 130	36	35

Eurofins Carlsbad

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

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

Lab Sample ID: LCSD 880-75467/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 75462 — **Prep Batch: 75467**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1092	*1	mg/Kg		109	70 - 130	77	35
Ethylbenzene			0.100	0.1231	*1	mg/Kg		123	70 - 130	118	35
m-Xylene & p-Xylene			0.200	0.2453	*1	mg/Kg		123	70 - 130	114	35
o-Xylene			0.100	0.1169	*1	mg/Kg		117	70 - 130	97	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-6331-1 MS — **Client Sample ID: H-7 (0-0.5')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 75462 — **Prep Batch: 75467**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U *1	0.0996	0.1267		mg/Kg		127	70 - 130
Toluene	<0.00201	U *1 *-	0.0996	0.1141		mg/Kg		113	70 - 130
Ethylbenzene	<0.00201	U *1 *-	0.0996	0.1118		mg/Kg		112	70 - 130
m-Xylene & p-Xylene	<0.00402	U *1 *-	0.199	0.2198		mg/Kg		110	70 - 130
o-Xylene	<0.00201	U *1 *-	0.0996	0.1071		mg/Kg		108	70 - 130

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

Lab Sample ID: 890-6331-1 MSD — **Client Sample ID: H-7 (0-0.5')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 75462 — **Prep Batch: 75467**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U *1	0.0990	0.1245		mg/Kg		126	70 - 130	2	35
Toluene	<0.00201	U *1 *-	0.0990	0.1048		mg/Kg		104	70 - 130	8	35
Ethylbenzene	<0.00201	U *1 *-	0.0990	0.1068		mg/Kg		108	70 - 130	5	35
m-Xylene & p-Xylene	<0.00402	U *1 *-	0.198	0.2101		mg/Kg		106	70 - 130	5	35
o-Xylene	<0.00201	U *1 *-	0.0990	0.1023		mg/Kg		103	70 - 130	5	35

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

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

Lab Sample ID: MB 880-75426/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 75449 — **Prep Batch: 75426**

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		03/12/24 15:18	03/13/24 07:48	1

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

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

Lab Sample ID: MB 880-75426/1-A
Matrix: Solid
Analysis Batch: 75449

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 75426

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/12/24 15:18	03/13/24 07:48	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/12/24 15:18	03/13/24 07:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*153*	*S1+*	*70 - 130*	*03/12/24 15:18*	*03/13/24 07:48*	*1*
o-Terphenyl	*140*	*S1+*	*70 - 130*	*03/12/24 15:18*	*03/13/24 07:48*	*1*

Lab Sample ID: LCS 880-75426/2-A
Matrix: Solid
Analysis Batch: 75449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 75426

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	939.4		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1106		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*122*		*70 - 130*

Lab Sample ID: LCSD 880-75426/3-A
Matrix: Solid
Analysis Batch: 75449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 75426

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	903.6		mg/Kg		90	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	866.4	*1	mg/Kg		87	70 - 130	24	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: 880-40636-A-1-B MS
Matrix: Solid
Analysis Batch: 75449

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 75426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1000	1183		mg/Kg		118	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U *1	1000	1082		mg/Kg		105	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

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

Lab Sample ID: 880-40636-A-1-C MSD
Matrix: Solid
Analysis Batch: 75449

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 75426

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	<49.7	U	1000	1189		mg/Kg		119	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.7	U *1	1000	1115		mg/Kg		108	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*116*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-75233/1-A
Matrix: Solid
Analysis Batch: 75325

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			03/11/24 19:54	1

Lab Sample ID: LCS 880-75233/2-A
Matrix: Solid
Analysis Batch: 75325

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.9		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-75233/3-A
Matrix: Solid
Analysis Batch: 75325

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	242.0		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-6331-A-1-B MS
Matrix: Solid
Analysis Batch: 75325

Client Sample ID: 890-6331-A-1-B MS
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	964	F1	249	1196		mg/Kg		93	90 - 110

Lab Sample ID: 890-6331-A-1-C MSD
Matrix: Solid
Analysis Batch: 75325

Client Sample ID: 890-6331-A-1-C MSD
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	964	F1	249	1181	F1	mg/Kg		88	90 - 110	1	20

QC Sample Results

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-75764/1-A
Matrix: Solid
Analysis Batch: 75931

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			03/18/24 20:33	1

Lab Sample ID: LCS 880-75764/2-A
Matrix: Solid
Analysis Batch: 75931

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	233.5		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-75764/3-A
Matrix: Solid
Analysis Batch: 75931

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	231.8		mg/Kg		93	90 - 110	1	20

Lab Sample ID: 880-40936-A-4-B MS
Matrix: Solid
Analysis Batch: 75931

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	14400		5000	19560		mg/Kg		104	90 - 110		

Lab Sample ID: 880-40936-A-4-C MSD
Matrix: Solid
Analysis Batch: 75931

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	14400		5000	19300		mg/Kg		99	90 - 110	1	20

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

GC VOA

Prep Batch: 75298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-75298/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 75462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-1	H-7 (0-0.5')	Total/NA	Solid	8021B	75467
890-6331-2	H-9 (0-0.5')	Total/NA	Solid	8021B	75467
890-6331-3	H-16 (0-0.5')	Total/NA	Solid	8021B	75467
890-6331-4	H-17 (0-0.5')	Total/NA	Solid	8021B	75467
890-6331-5	H-18 (0-0.5')	Total/NA	Solid	8021B	75467
890-6331-6	H-19 (0-0.5')	Total/NA	Solid	8021B	75467
MB 880-75298/5-A	Method Blank	Total/NA	Solid	8021B	75298
MB 880-75467/1-A	Method Blank	Total/NA	Solid	8021B	75467
LCS 880-75467/2-A	Lab Control Sample	Total/NA	Solid	8021B	75467
LCSD 880-75467/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	75467
890-6331-1 MS	H-7 (0-0.5')	Total/NA	Solid	8021B	75467
890-6331-1 MSD	H-7 (0-0.5')	Total/NA	Solid	8021B	75467

Prep Batch: 75467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-1	H-7 (0-0.5')	Total/NA	Solid	5035	
890-6331-2	H-9 (0-0.5')	Total/NA	Solid	5035	
890-6331-3	H-16 (0-0.5')	Total/NA	Solid	5035	
890-6331-4	H-17 (0-0.5')	Total/NA	Solid	5035	
890-6331-5	H-18 (0-0.5')	Total/NA	Solid	5035	
890-6331-6	H-19 (0-0.5')	Total/NA	Solid	5035	
MB 880-75467/1-A	Method Blank	Total/NA	Solid	5035	
LCS 880-75467/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-75467/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6331-1 MS	H-7 (0-0.5')	Total/NA	Solid	5035	
890-6331-1 MSD	H-7 (0-0.5')	Total/NA	Solid	5035	

Analysis Batch: 75617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-1	H-7 (0-0.5')	Total/NA	Solid	Total BTEX	
890-6331-2	H-9 (0-0.5')	Total/NA	Solid	Total BTEX	
890-6331-3	H-16 (0-0.5')	Total/NA	Solid	Total BTEX	
890-6331-4	H-17 (0-0.5')	Total/NA	Solid	Total BTEX	
890-6331-5	H-18 (0-0.5')	Total/NA	Solid	Total BTEX	
890-6331-6	H-19 (0-0.5')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 75426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-1	H-7 (0-0.5')	Total/NA	Solid	8015NM Prep	
890-6331-2	H-9 (0-0.5')	Total/NA	Solid	8015NM Prep	
890-6331-3	H-16 (0-0.5')	Total/NA	Solid	8015NM Prep	
890-6331-4	H-17 (0-0.5')	Total/NA	Solid	8015NM Prep	
890-6331-5	H-18 (0-0.5')	Total/NA	Solid	8015NM Prep	
890-6331-6	H-19 (0-0.5')	Total/NA	Solid	8015NM Prep	
MB 880-75426/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

GC Semi VOA (Continued)

Prep Batch: 75426 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-75426/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-75426/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-40636-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-40636-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 75449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-1	H-7 (0-0.5')	Total/NA	Solid	8015B NM	75426
890-6331-2	H-9 (0-0.5')	Total/NA	Solid	8015B NM	75426
890-6331-3	H-16 (0-0.5')	Total/NA	Solid	8015B NM	75426
890-6331-4	H-17 (0-0.5')	Total/NA	Solid	8015B NM	75426
890-6331-5	H-18 (0-0.5')	Total/NA	Solid	8015B NM	75426
890-6331-6	H-19 (0-0.5')	Total/NA	Solid	8015B NM	75426
MB 880-75426/1-A	Method Blank	Total/NA	Solid	8015B NM	75426
LCS 880-75426/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	75426
LCSD 880-75426/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	75426
880-40636-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	75426
880-40636-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	75426

Analysis Batch: 75534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-1	H-7 (0-0.5')	Total/NA	Solid	8015 NM	
890-6331-2	H-9 (0-0.5')	Total/NA	Solid	8015 NM	
890-6331-3	H-16 (0-0.5')	Total/NA	Solid	8015 NM	
890-6331-4	H-17 (0-0.5')	Total/NA	Solid	8015 NM	
890-6331-5	H-18 (0-0.5')	Total/NA	Solid	8015 NM	
890-6331-6	H-19 (0-0.5')	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 75233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-2	H-9 (0-0.5')	Soluble	Solid	DI Leach	
890-6331-3	H-16 (0-0.5')	Soluble	Solid	DI Leach	
890-6331-4	H-17 (0-0.5')	Soluble	Solid	DI Leach	
890-6331-5	H-18 (0-0.5')	Soluble	Solid	DI Leach	
890-6331-6	H-19 (0-0.5')	Soluble	Solid	DI Leach	
MB 880-75233/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-75233/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-75233/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6331-A-1-B MS	890-6331-A-1-B MS	Soluble	Solid	DI Leach	
890-6331-A-1-C MSD	890-6331-A-1-C MSD	Soluble	Solid	DI Leach	

Analysis Batch: 75325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-2	H-9 (0-0.5')	Soluble	Solid	300.0	75233
890-6331-3	H-16 (0-0.5')	Soluble	Solid	300.0	75233
890-6331-4	H-17 (0-0.5')	Soluble	Solid	300.0	75233
890-6331-5	H-18 (0-0.5')	Soluble	Solid	300.0	75233
890-6331-6	H-19 (0-0.5')	Soluble	Solid	300.0	75233
MB 880-75233/1-A	Method Blank	Soluble	Solid	300.0	75233

QC Association Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

HPLC/IC (Continued)

Analysis Batch: 75325 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-75233/2-A	Lab Control Sample	Soluble	Solid	300.0	75233
LCSD 880-75233/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	75233
890-6331-A-1-B MS	890-6331-A-1-B MS	Soluble	Solid	300.0	75233
890-6331-A-1-C MSD	890-6331-A-1-C MSD	Soluble	Solid	300.0	75233

Leach Batch: 75764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-1	H-7 (0-0.5')	Soluble	Solid	DI Leach	
MB 880-75764/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-75764/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-75764/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-40936-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-40936-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 75931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6331-1	H-7 (0-0.5')	Soluble	Solid	300.0	75764
MB 880-75764/1-A	Method Blank	Soluble	Solid	300.0	75764
LCS 880-75764/2-A	Lab Control Sample	Soluble	Solid	300.0	75764
LCSD 880-75764/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	75764
880-40936-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	75764
880-40936-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	75764

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Client Sample ID: H-7 (0-0.5')
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

Lab Sample ID: 890-6331-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	75467	03/13/24 10:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	75462	03/14/24 12:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			75617	03/14/24 12:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			75534	03/13/24 12:44	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	75426	03/12/24 15:19	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	75449	03/13/24 12:44	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	75764	03/18/24 13:15	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	75931	03/18/24 22:31	CH	EET MID

Client Sample ID: H-9 (0-0.5')
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

Lab Sample ID: 890-6331-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	75467	03/13/24 10:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	75462	03/14/24 12:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			75617	03/14/24 12:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			75534	03/13/24 13:05	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	75426	03/12/24 15:19	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	75449	03/13/24 13:05	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	75233	03/11/24 11:07	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	75325	03/11/24 20:29	CH	EET MID

Client Sample ID: H-16 (0-0.5')
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

Lab Sample ID: 890-6331-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	75467	03/13/24 10:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	75462	03/14/24 13:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			75617	03/14/24 13:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			75534	03/13/24 13:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	75426	03/12/24 15:19	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	75449	03/13/24 13:26	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	75233	03/11/24 11:07	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	75325	03/11/24 20:33	CH	EET MID

Client Sample ID: H-17 (0-0.5')
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

Lab Sample ID: 890-6331-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	75467	03/13/24 10:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	75462	03/14/24 13:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			75617	03/14/24 13:31	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Client Sample ID: H-17 (0-0.5')

Lab Sample ID: 890-6331-4
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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			75534	03/13/24 13:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	75426	03/12/24 15:19	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	75449	03/13/24 13:48	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	75233	03/11/24 11:07	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	75325	03/11/24 20:38	CH	EET MID

Client Sample ID: H-18 (0-0.5')

Lab Sample ID: 890-6331-5
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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	75467	03/13/24 10:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	75462	03/14/24 13:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			75617	03/14/24 13:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			75534	03/13/24 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	75426	03/12/24 15:19	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	75449	03/13/24 14:09	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	75233	03/11/24 11:07	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	75325	03/11/24 20:42	CH	EET MID

Client Sample ID: H-19 (0-0.5')

Lab Sample ID: 890-6331-6
Matrix: Solid
Date Collected: 03/07/24 00:00
Date Received: 03/07/24 16:09

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	75467	03/13/24 10:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	75462	03/14/24 14:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			75617	03/14/24 14:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			75534	03/13/24 14:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	75426	03/12/24 15:19	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	75449	03/13/24 14:51	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	75233	03/11/24 11:07	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	75325	03/11/24 20:58	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
Job ID: 890-6331-1
Project/Site: Nighthawk State Com #003H
SDG: Lea 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	T104704400-23-26	06-30-24

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

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

Method Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea 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	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Carmona Resources
Project/Site: Nighthawk State Com #003H

Job ID: 890-6331-1
SDG: Lea County New Mexico

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6331-1	H-7 (0-0.5')	Solid	03/07/24 00:00	03/07/24 16:09
890-6331-2	H-9 (0-0.5')	Solid	03/07/24 00:00	03/07/24 16:09
890-6331-3	H-16 (0-0.5')	Solid	03/07/24 00:00	03/07/24 16:09
890-6331-4	H-17 (0-0.5')	Solid	03/07/24 00:00	03/07/24 16:09
890-6331-5	H-18 (0-0.5')	Solid	03/07/24 00:00	03/07/24 16:09
890-6331-6	H-19 (0-0.5')	Solid	03/07/24 00:00	03/07/24 16:09

Released to Imaging: 5/1/2024 11:11:02 AM
Received by OCD: 3/27/2024 4:56:13 PM

Chain of Custody

Work Order No: _____

Project Manager:	Clinton Merritt	Bill to: (if different)	Isaac Castro
Company Name:	Carmona Resources	Company Name:	Marathon Oil Corporation
Address:	310 W Wall St Ste 500	Address:	990 Town and Country Blvd
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Houston, TX 77024
Phone:	432-813-9044	Email:	icastro@marathonoil.com

Work Order Comments

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

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

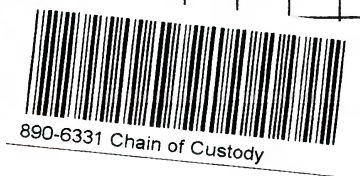
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Nighthawk State Com #003H	Turn Around	
Project Number:	2255	☑ Routine ☐ Rush	
Project Location	Lea County, New Mexico	Due Date:	5 day
Sampler's Name:	MW		
PO #:	CL.24.00354		

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Received Intact:	(Yes) No	Thermometer ID:	TWN007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	6.0
Total Containers:		Corrected Temperature:	5.8

Preservative Codes

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



Sample Identification	Date	Time	Soil	Water	Grab/ Comp	# of Cont	BTEX 8021B	TPH 8015M (GRO + DRO + MRO)	Chloride 300.0	Hold	Sample Comments
H-7 (0-0.5')	3/7/2024		X		G	1	X	X	X		
H-9 (0-0.5')	3/7/2024		X		G	1	X	X	X		
H-16 (0-0.5')	3/7/2024		X		G	1	X	X	X		
H-17 (0-0.5')	3/7/2024		X		G	1	X	X	X		
H-18 (0-0.5')	3/7/2024		X		G	1	X	X	X		
H-19 (0-0.5')	3/7/2024		X		G	1	X	X	X		

Comments: Email results to Mike Carmona mcarmona@carmonaresources.com, Conner Moehring cmoehring@carmonaresources.com, Clint Merritt MerrittC@carmonaresources.com

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	15:09 3/7		15:09 3/7

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Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 890-6331-1
SDG Number: Lea County New Mexico

Login Number: 6331
List Number: 1
Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Carmona Resources

Job Number: 890-6331-1
SDG Number: Lea County New Mexico

Login Number: 6331
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/11/24 08:34 AM

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

District I
1625 N. French Dr., Hobbs, NM 88240
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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 327032

QUESTIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 327032
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2403040271**
Incident Name	**NAPP2403040271 NIGHTHAWK STATE COM #003H @ 30-025-41950**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-025-41950] NIGHTHAWK STATE COM #003H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	NIGHTHAWK STATE COM #003H
Date Release Discovered	01/29/2024
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Other | Well | Produced Water | Released: 635 BBL | Recovered: 485 BBL | Lost: 150 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Rod BOPs had been proactively shut in but were found to be leaking due to non-operated offset frac interference.

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Energy, Minerals and Natural Resources
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1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 327032
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Isaac Castro Email: icastro@marathonoil.com Date: 03/27/2024

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Oil Conservation Division
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QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 327032
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 75 and 100 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Greater than 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	3870
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	381
GRO+DRO (EPA SW-846 Method 8015M)	381
BTEX (EPA SW-846 Method 8021B or 8260B)	0.1
Benzene (EPA SW-846 Method 8021B or 8260B)	0.1
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	02/12/2024
On what date will (or did) the final sampling or liner inspection occur	02/12/2024
On what date will (or was) the remediation complete(d)	03/07/2024
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	37250
What is the estimated volume (in cubic yards) that will be remediated	159
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 327032
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Isaac Castro Email: icastro@marathonoil.com Date: 03/27/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 327032
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 327032
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**327162**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**02/12/2024**
What was the (estimated) number of samples that were to be gathered	**86**
What was the sampling surface area in square feet	**37250**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	37250
What was the total volume (cubic yards) remediated	159
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	GWDB was installed at 55' on 08/15/2023. No groundwater was detected after 72 hours. 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). • Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg. • TPH: 2,500 mg/kg (GRO + DRO + MRO). • TPH: 1,000 mg/kg (GRO + DRO). • Chloride: 10,000 mg/kg.

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

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

I hereby agree and sign off to the above statement	Name: Isaac Castro Email: icastro@marathonoil.com Date: 03/27/2024

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QUESTIONS (continued)

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	Action Number: 327032
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 327032

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 327032
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	This Remediation Closure Report is approved. Areas reasonably needed for production or subsequent drilling operations will need to be reclaimed and revegetated as soon as they are no longer reasonably needed. A report for reclamation and revegetation will need to be submitted and approved prior to this incident receiving the final status of "Restoration Complete".	5/1/2024
scott.rodgers	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	5/1/2024