



September 16, 2025

New Mexico Oil Conservation Division

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

**Re: Remediation Work Plan
Marbob State #001
Incident Number: nAB1821141249
Eddy County, New Mexico**

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of Matador Production Company (Matador), has prepared this *Remediation Work Plan* (RWP) to document soil sampling and excavation activities completed at the Marbob State #001 (Site). The purpose of the soil sampling and excavation activities was to address impacted and waste-containing soil resulting from a produced water release associated with Incident Number nAB1821141249. Matador is submitting this RWP, describing analytical results from soil sampling activities following a *Remediation Closure Report* authored by Souder, Miller and Associates (SMA), geophysical results following a Karst Survey, and depth to water data based on a recent soil boring completed at the Site. This RWP will address deficiencies in the original *Remediation Closure Report* and proposes to address the sensitive Site receptors (high karst and no depth to water within a half-mile radius of the Site) of the subject matter release prior to excavation activities and submitting a *Closure Request*.

BACKGROUND

The Site is located in Unit A, Section 19, Township 19 South, Range 29 East, in Eddy County, New Mexico (32.6518211°, -104.1077576°) and is associated with oil and gas exploration and production operations on State Trust Land managed by the New Mexico State Land Office (NMSLO).

On July 01, 2018, an equipment failure resulted in the release of approximately 326 barrels (bbls) of produced water into a lined secondary containment and onto the pad surface; all 326 bbls of produced water were unrecoverable. Produced water overfilled the secondary containment on-pad and impacted approximately 3,850 square feet off-pad. Matador reported the release to the New Mexico Oil Conservation Division (NMOCD) on July 02, 2018, and submitted a Release Notification Form C-141 (Form C-141) on July 23, 2018. The release was assigned Incident Number NAB1821141249.

SMA was contracted by Matador to complete delineation soil sampling activities and to oversee the remediation of the subject matter release. SMA submitted a *Remediation Closure Report* to the NMOCD on December 07, 2022, however the report was denied on March 16, 2023, for the following reasons:

The Closure Report is denied. There is a specific process to have BLM change a karst designation. The OCD follows the BLM, when it comes to karst. The BLM puts together and updates the karst maps. If a site shows as high karst under the current map, that is what we go off. You would need to send the karst study to the BLM and try to get high karst potential downgraded to medium in this area. If they do make changes to the map, let us know and we

will honor their decision. Until that time, the incident remains in high karst and needs to be remediated to the strictest closure criteria. Confirmation samples should be collected every 200 ft². All samples must be analyzed for the constituents listed in Table I of 19.15.29.12 NMAC. All sample depths need to be included on table. Include pictures of excavation before backfilling. A deferral can only be granted once the release is fully delineated.

SMA oversaw the excavation of the off-pad release extent in accordance with the reclamation requirement for the top 4 feet of soils. Remediation of the impacted areas on-pad was completed to the Maximum Extent Practicable (MEP) prior to backfill. Per the denied *Remediation Closure Report*, SMA did not conduct confirmation floor or confirmation sidewall soil sampling at a frequency of every 200 square feet from the floor of the excavation and every 200 square feet from the sidewalls of the excavation due to the release predating the enactment of 19.15.29.5 NMAC on August 14, 2018.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Site Assessment/Characterization is described below.

The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well CP-2081 POD1, located on the southwest corner of the Site; this soil boring was advanced to determine depth to water at the Site. The soil boring had a reported depth to groundwater greater than 55 below ground surface (bgs) (measured on August 15, 2025) and a total depth of 55 feet bgs. There are no regional or Site-specific hydrogeological conditions, such as shallow surface water, known karst features, wetlands, or vegetation to suggest the Site is conducive to shallower groundwater. All wells used for depth to groundwater determination are presented on Figure 1; the referenced well record is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent dry wash, located approximately 0.88 miles east of the Site.

The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is potentially underlain by unstable geology (high potential karst designation area). Site receptors are identified on Figure 1.

On July 21, 2025, Ensolum commissioned a geophysical karst survey using a Bureau of Land Management (BLM) approved third-party cave/karst contractor. The karst survey was conducted by Southwest Geophysical Consulting, LLC, under the supervision of Dave Decker. The findings of the report indicated there was no evidence of karst features within 200 feet of the release or beneath the Site and determined the underlying geology appears to be stable. The karst survey report is included in Appendix B. Based on the findings of the karst survey, unstable geology and/or potential conduits to groundwater through karst features appear to be absent and as such, Matador respectfully requests karst features and unstable geology not be considered as sensitive Site receptors as they relate to the Site.

Based on the results of the desktop Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) *currently* apply:

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

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH will be applied to the top 4 feet of soil, per 19.15.29.13.D (1) NMAC for the impacted area off-pad.

CULTURAL RESOURCE AND BIOLOGICAL SURVEYS

Remediation activities are anticipated to remain in previously disturbed areas of the well pad. Matador has complied with the Cultural Properties Protection (CPP) Rule by completing a review of the New Mexico cultural resources information system (NMCRIIS) and records maintained by the archaeological records management section (ARMS) of the Historic Preservation Division of the New Mexico Department of Cultural Affairs, in accordance with 4.10.15.9 NMAC. An archaeological survey was conducted by Beaver Creek Archeology and Environmental, and the survey findings were negative for the Site. The survey determined the release area was negative for cultural properties, and as such, the Cultural Properties Protection Rule (CPP) has been followed. The NMSLO Cultural Resources Cover sheet is included in Appendix C. Matador submitted a Right-of-Entry (ROE) form to the NMSLO, and the executed copy is included in Appendix D.

The Site is located within the historical range of the Lesser Prairie Chicken (LPC) and within an NMSLO Candidate Conservation Agreement with Assurances (CCAA) area. Measures to comply with the CCAA include restoration of habitat by removal of the caliche pad, reclamation of the well pad, and revegetation with native species. Construction activities will be avoided during breeding, nesting, and early brood-rearing seasons. The Site is not located within the CCAA boundary for the Texas Hornshell mussel. A review of the U.S. Fish and Wildlife Services Information for Planning and Consultation (IPaC) resources indicated there are no critical wildlife habitats at the Site. IPaC resources indicated that threatened or endangered cactus and bird species are potentially present in the area near the Site. No native vegetation/habitat outside of the well pad extent will be disturbed during reclamation activities. If reclamation activities extend outside of the well pad extent, a biological survey will be completed.

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

Beginning on April 30, 2025, Ensolum personnel were onsite to complete lateral and vertical delineation of the release extent as indicated by field observations and the *Remediation Closure Report* originally submitted by SMA. Five lateral soil samples (SS01 through SS05) were collected at ground surface and 1-foot bgs to verify the lateral extent on-pad. A total of 12 boreholes (BH01 through BH09 and BH10A through BH10C) were advanced via backhoe, within the release extent to assess the vertical extent of the release. Boreholes BH01 through BH07 were advanced on-pad to a depth of 15 feet bgs in borehole BH01, 10 feet bgs in boreholes BH02 and BH03, 3 feet bgs in borehole BH04, 1-foot bgs in borehole BH05, 11 feet bgs in borehole BH06, and 2 feet bgs in borehole BH07. Boreholes BH08, BH09, and BH10A through BH10C were advanced from the previously excavated and backfilled area off-pad at

depths ranging from 4 feet bgs to a terminal depth of 6 feet bgs to confirm the off-pad extent was adequately reclaimed.

On August 27, 2025, Ensolum personnel returned to the Site to complete lateral delineation of the impacted soil as indicated by field observations. Two lateral soil samples (SS07 and SS08) were collected at ground surface and 1-foot bgs and one lateral soil sample SS06 was collected at 0.5 feet bgs to verify the lateral extent on-pad.

All delineation soil samples were field screened for chloride and TPH utilizing Hach® chloride QuanTab® test strips and a PetroFLAG® Soil Analyzer System, respectively. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix E. Photographic documentation of delineation activities is included in Appendix F.

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

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results from lateral delineation soil samples (SS01 through SS05, SS07, and SS08), collected at ground surface and 1-foot bgs, and lateral delineation soil sample SS06, collected at 0.5 feet bgs, indicated that all COC's were in compliance with the Site Closure Criteria and with the reclamation requirement. Laboratory analytical results for borehole sample locations BH01, BH06, and BH07 indicated concentrations of chloride exceeded the Site Closure Criteria at ground surface. Borehole sample locations BH02 through BH05 were in compliance with the Site Closure Criteria at ground surface. Laboratory analytical results from borehole sample locations BH08, BH09, BH10A, BH10B, and BH10C indicated all COC concentrations were in compliance with the Site Closure Criteria and with the reclamation equipment at depths ranging from 4 feet bgs to 6 feet bgs, indicating the off-pad release extent had been adequately reclaimed. Laboratory results are summarized in Table 1 and laboratory analytical reports are included in Appendix G.

PROPOSED REMEDIATION WORK PLAN

Matador proposes to complete excavation activities at the Site according to the following actions:

- Excavate impacted and waste-containing soil on-pad in the vicinity of boreholes BH01 through BH04, BH06 and BH07 in accordance with the Site Closure Criteria and with the reclamation requirement. Matador is in the process of reclaiming the Site and all equipment will be removed prior to beginning excavation activities.
- The excavation will be completed with mechanical equipment, and the proposed excavation extent and depths are depicted on Figures 3a and 3b. Figure 3a depicts the proposed excavation extent if no excavation occurs off pad. Figure 3b depicts off pad excavation area if excavation is warranted.
- The impacted area measures 10,542 square feet in size and an estimated 196 cubic yards of impacted soil will require excavation. This work will include addressing chloride and TPH impacts and waste containing soil identified in boreholes BH01 through BH04, BH06 and BH07 at ground surface, see Figure 2.

Matador Production Company
Remediation Work Plan
Marbob State #001



- Impacted soil and waste containing soil will be transferred to an approved landfill facility for disposal.
- Matador respectfully requests a confirmation sampling variance at a frequency of one five-point composite soil sample every 400 square feet from the floor of the excavation and at a frequency of every 200 square feet from the sidewalls of the excavation. Based on the areal extent of the off-pad excavation area, the variance request will be equally protective of human health, the environment, and depth to ground water is reasonably estimated to be greater than 55 feet bgs, there are no other sensitive receptors in the vicinity of the Site. Therefore, this variance is believed to be equally protective of human health, the environment, and groundwater.
- The excavation will be backfilled and recontoured to match pre-existing conditions and seeded utilizing a weed-free seed mix designed by the NMSLO to meet reclamation standards for this region. Seeding is anticipated to be completed in the spring or fall when temperatures and precipitation is most conducive for vegetative growth.
- Matador respectfully requests a variance for the off-pad excavation area. SMA previously excavated the off-pad release extent to 4 feet bgs (see denied closure report in Appendix H). Ensolum's delineation potholes PH08, PH09, PH10A, PH10B, and PH10C, collected at depths ranging from 4 feet to 6 feet bgs to confirm excavation activities completed by SMA indicated COC concentrations are in compliance with the Site Closure Criteria and the reclamation requirement. The off-pad excavation conducted by SMA was backfilled after excavation was completed during the 2024 remediation activities and the area has since been revegetated see Photolog in Appendix F. Excavation of the off-pad area will result in the destruction of native plant and wildlife habitat that has returned to natural conditions. Matador believes this *variance request* will provide equal or better protection of public health, the environment. Matador respectfully requests approval for this *variance request* associated with Incident Number nAB1821141249.
- Pending the approval of this *Remediation Work Plan* and the closure of Incident number NAB1821141249, Matador will complete reclamation activities at the Site and send a follow-up *Reclamation Activities Report* to NMSLO.

Matador believes the deficiencies identified by NMOCD in the March 16, 2023, denial have been adequately addressed in this RWP and will be protective of human health, the environment, and groundwater. Matador will complete the proposed excavation and soil sampling activities within 180 days of the date of approval of this RWP by the NMOCD.

If you have any questions or comments, please contact Ms. Ashley Giovengo at (575) 988-0055 or agiovengo@ensolum.com.

Sincerely,
Ensolum, LLC

A handwritten signature in black ink, appearing to read 'Ashley Giovengo'.

Ashley Giovengo
Associate Principal

A handwritten signature in black ink, appearing to read 'Daniel R. Moir'.

Daniel R. Moir, PG (licensed in WY & TX)
Senior Managing Geologist

Matador Production Company
Remediation Work Plan
Marbob State #001



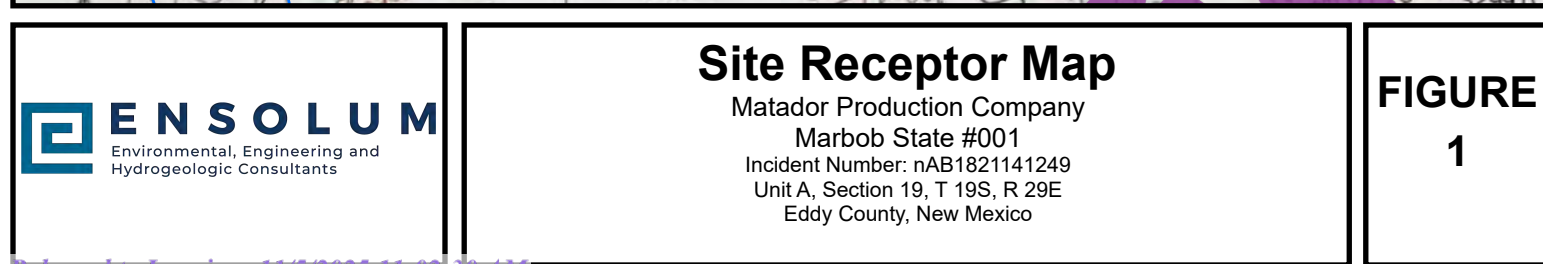
cc: Jason Touchet, Matador Production Company

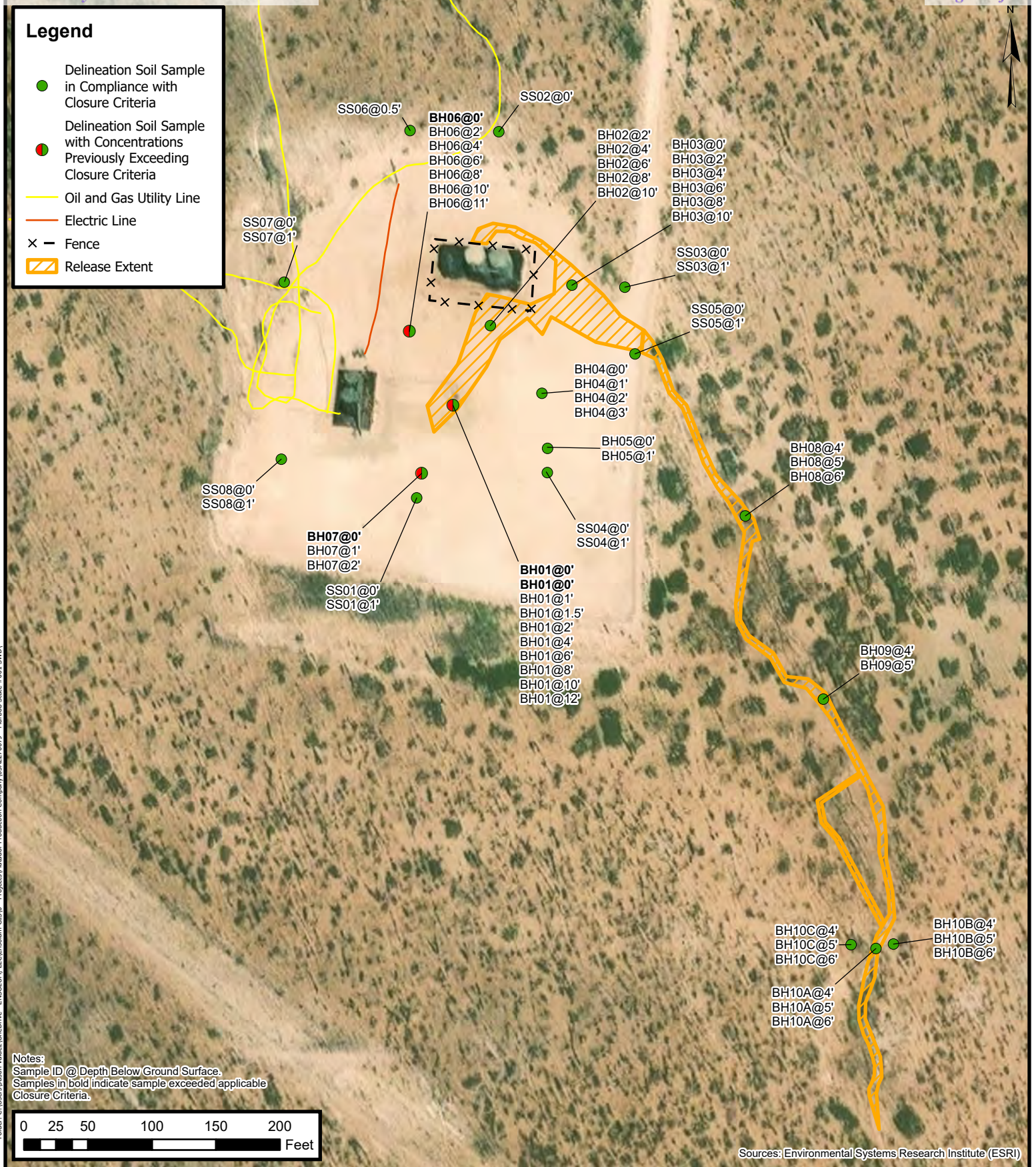
Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3a	Proposed Excavation Extent (On-Pad)
Figure 3b	Proposed Excavation Extent (Off-Pad)
Table 1	Soil Sample Analytical Results (Delineation Soil Samples)
Appendix A	Well Log and Record
Appendix B	Karst Survey
Appendix C	NMSLO Cultural Resources Cover Sheet
Appendix D	Executed Right-of-Entry Form
Appendix E	Lithologic Soil Sampling Logs
Appendix F	Photographic Log
Appendix G	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix H	Remediation Closure Request



FIGURES



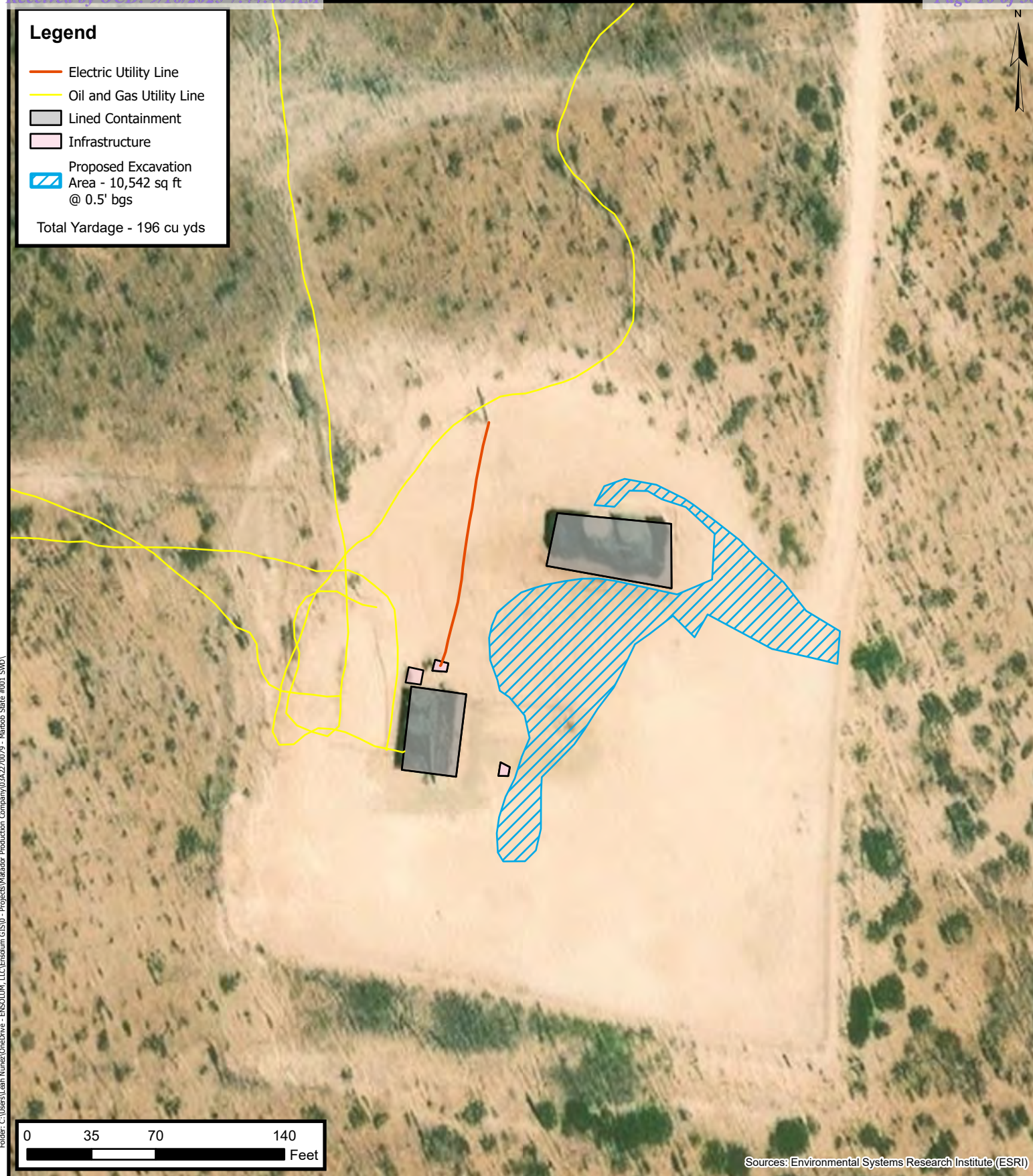


Delineation Soil Sample Locations

Matador Production Company
 Marbob State #001
 Incident Number: 30-015-26040
 Unit A, Section 19, T 19S, R 29E
 Eddy County, New Mexico

FIGURE

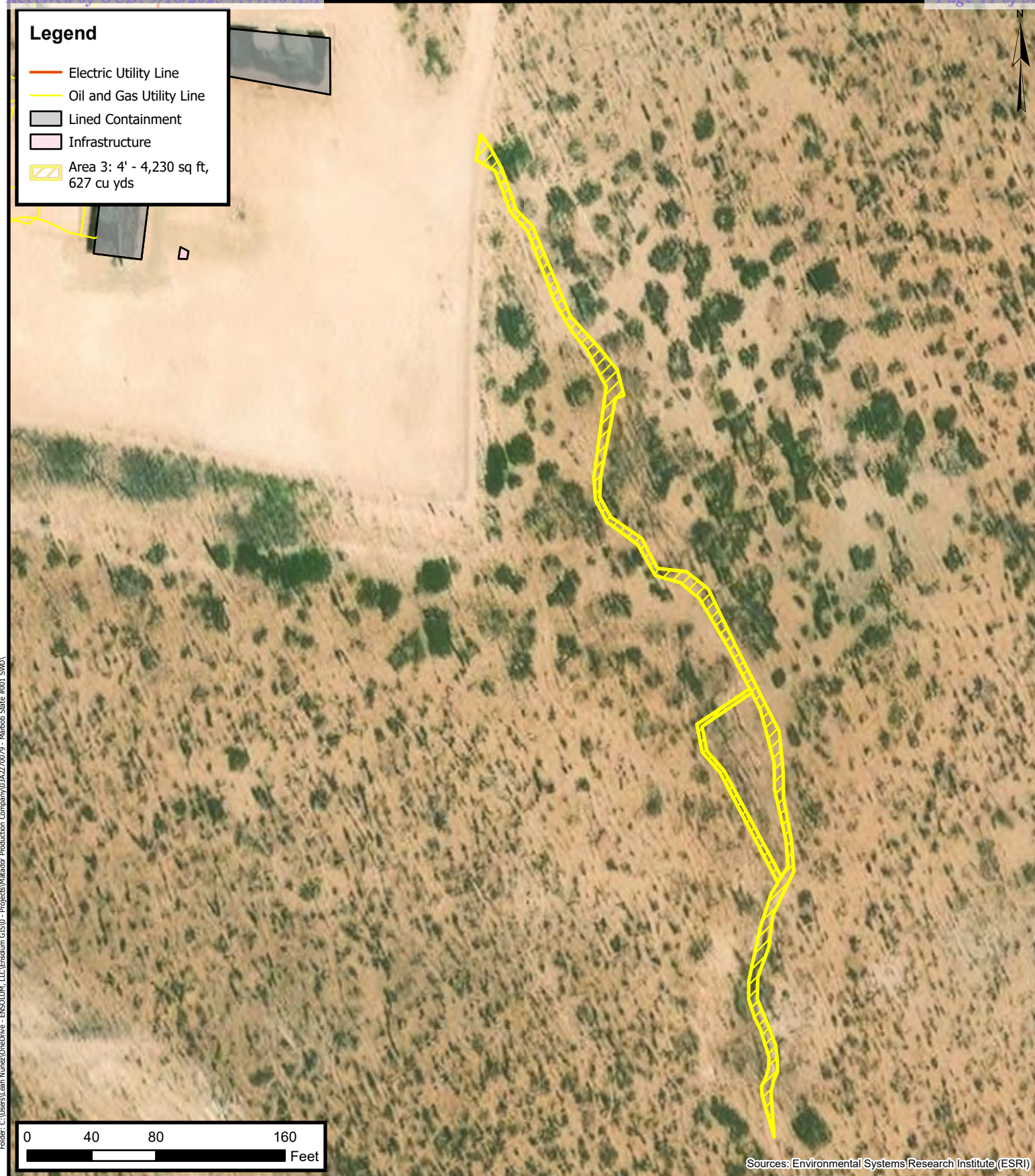
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Proposed Excavation Extent

Matador Production Company
Marbob State #001 SWD
Incident Number: nAB1821141249
Unit A, Section 19, T 19S, R 29E
Eddy County, New Mexico

FIGURE
3a



Proposed Excavation Extent

Matador Production Company
Marbob State #001
Incident Number: nAB1821141249
Unit A, Section 19, T 19S, R 29E
Eddy County, New Mexico

FIGURE
3b



TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Marbob State #001
 Matador Production Company
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Soil Samples										
SS01	5/1/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	131
SS01	5/1/2025	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	26.8
SS02	5/1/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	45.4
SS03	4/30/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	383
SS03	4/30/2025	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	328
SS04	5/1/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	98.4
SS04	5/1/2025	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	50.0
SS05	4/30/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	51.1
SS05	4/30/2025	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SS06	8/27/2028	0.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	108
SS07	8/27/2028	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
SS07	8/27/2028	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	91.4
SS08	8/27/2028	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	252
SS08	8/27/2028	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	361
BH01	5/1/2025	0	<0.0250	<0.0500	<20.0	119	72.7	119	191.7	18,300
BH01	5/14/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	21,300
BH01	5/1/2025	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,500
BH01	5/1/2025	1.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,540
BH01	5/14/2025	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	967
BH01	5/14/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,530
BH01	5/14/2025	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	4,120
BH01	5/14/2025	8	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	3,750
BH01	5/14/2025	10	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,280
BH01	5/14/2025	12	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	823
BH02	5/14/2025	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,460
BH02	5/14/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,790
BH02	5/14/2025	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,710
BH02	5/14/2025	8	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,260
BH02	5/14/2025	10	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	241
BH03	5/15/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	814
BH03	5/15/2025	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,210
BH03	5/15/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	2,420
BH03	5/15/2025	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,650
BH03	5/15/2025	8	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1320

TABLE 1 - CONT'D
SOIL SAMPLE ANALYTICAL RESULTS
 Marbob State #001
 Matador Production Company
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Soil Samples										
BH03	5/15/2025	10	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	145
BH04	5/15/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,890
BH04	5/15/2025	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	798
BH04	5/15/2025	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	400
BH04	5/15/2025	3	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	246
BH05	5/16/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	333
BH05	5/16/2025	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	393
BH06	5/16/2025	0	<0.0250	<0.0500	<20.0	209	163	209	372	16,500
BH06	5/16/2025	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,170
BH06	5/16/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,360
BH06	5/16/2025	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,880
BH06	5/16/2025	8	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,320
BH06	5/16/2025	10	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	732
BH06	5/16/2025	11	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	208
BH07	5/19/2025	0	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	31,000
BH07	5/19/2025	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	1,310
BH07	5/19/2025	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	152
BH08	5/20/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	968
BH08	5/20/2025	5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	590
BH08	5/20/2025	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	382
BH09	5/20/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	390
BH09	5/20/2025	5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	212
BH10A	5/20/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH10A	5/20/2025	5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0
BH10A	5/20/2025	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	<20.0

TABLE 1 - CONT'D
SOIL SAMPLE ANALYTICAL RESULTS
 Marbob State #001
 Matador Production Company
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Soil Samples										
BH10B	5/20/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	89.4
BH10B	5/20/2025	5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	72.1
BH10B	5/20/2025	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	45.3
BH10C	5/20/2025	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	71.9
BH10C	5/20/2025	5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	82.8
BH10C	5/20/2025	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<25.0	<50.0	70.2

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

<: Laboratory Analytical result is less than reporting limit

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

* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes



APPENDIX A

Well Log and Record



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) Pod 1		WELL TAG ID NO.		OSE FILE NO(S). CP-2081		
	WELL OWNER NAME(S) Matador Production Company				PHONE (OPTIONAL)		
	WELL OWNER MAILING ADDRESS 5400 Lyndon B Johnson FWY Suite 1500				CITY Dallas	STATE TX	ZIP 75240
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 39	SECONDS 5.44	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND	
	LONGITUDE 104	6	29.78	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE S19 T19s R29e							

2. DRILLING & CASING INFORMATION	LICENSE NO. WD-1862	NAME OF LICENSED DRILLER James Hawley			NAME OF WELL DRILLING COMPANY H&R Enterprises, LLC			
	DRILLING STARTED 8-12-25	DRILLING ENDED 8-12-25	DEPTH OF COMPLETED WELL (FT) 55'	BORE HOLE DEPTH (FT) 55'	DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☐ DRY HOLE ☒ SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A	DATE STATIC MEASURED 8-18-25		
	DRILLING FLUID: ☒ AIR ☐ MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: ☒ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER - SPECIFY:					CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐		
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0' 55'		6'	No casing left in hole				

3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL <i>*(if using Centralizers for Artesian wells- indicate the spacing below)</i>	AMOUNT (cubic feet)	METHOD OF PLACEMENT
				N/A		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
4. HYDROGEOLOGIC LOG OF WELL	0'	15'	15'	Sand	Y ✓ N	
	15'	20'	5'	Brown Clay	Y ✓ N	
	20'	25'	5'	Sand	Y ✓ N	
	25'	40'	15'	Red/Brown clay	Y ✓ N	
	40'	55'	15'	Red Sandy Clay	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00
☐ PUMP ☐ AIR LIFT ☐ BAILER ☒ OTHER – SPECIFY: DTGW Bore						
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION: Depth to groundwater bore was gauged for water on 8-18-25. DTGW bore was Dry. Temporary well casing was removed, bore hole was backfilled from bottom to 10' BGS with drill cuttings. Hydrated Bentonite hole plug was poured from 10' BGS to surface.					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Nathan Smelcer					
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:					
	 _____ SIGNATURE OF DRILLER / PRINT SIGNEE NAME				James Hawley _____ DATE	

FOR USE INTERNAL USE

FILE NO.	POD NO.	TRN NO.	
LOCATION	WELL TAG ID NO.		PAGE 2 OF 2



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: CP-2081 Pod 1

Well owner: Matador Production Company

Phone No.: _____

Mailing address: 5400 Lyndon B Johnson FWY Suite 1500

City: Dallas State: _____ TX Zip code: 75240

II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: H&R Enterprises, LLC
- 2) New Mexico Well Driller License No.: WD-1862 Expiration Date: 6/16/27
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
Nathan Smelcer
- 4) Date well plugging began: 8-18-25 Date well plugging concluded: 8-18-25
- 5) GPS Well Location: Latitude: 32 deg, 39 min, 5.44 sec
Longitude: 104 deg, 6 min, 29.78 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 55 ft below ground level (bgl),
by the following manner: well sounder
- 7) Static water level measured at initiation of plugging: N/A ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 7/14/25
- 9) Were all plugging activities consistent with an approved plugging plan? yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- For each interval plugged, describe within the following columns:**

III. SIGNATURE:

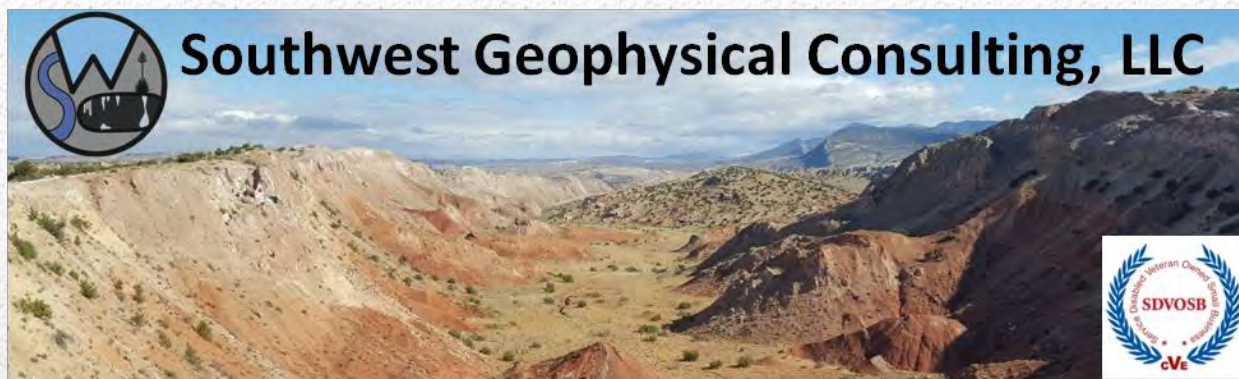
Signature of Well Driller

Date _____



APPENDIX B

Karst Survey



Environmental Karst Study Report Matador Marbob State No. 001 Eddy County, New Mexico

**Prepared For:
Ensolum, LLC
3122 National Parks Highway
Carlsbad, NM 88220**

Within 200 feet of the spill delineation boundary:

- ☒ Negative ☐ Positive for surface karst
- ☒ Stable ☐ Unstable Ground
- ☐ Karst Monitor Recommended

July 21, 2025

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MMXXV

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1.0 INTRODUCTION

This report was commissioned by Ensolum, LLC (hereinafter referred to as "the client"), on June 17, 2025, for the purpose of conducting an environmental karst study within an area encompassing the Matador Marbob State No. 001 release site (hereinafter termed "MS01") centered at N 32.651148° W 104.106833°.

1.1 Goals of this Study

The goals of this study are to conduct a surface karst inventory and provide the client with the location and description of any surface karst features located within 200 feet (61 meters) of the spill delineation boundary (as defined by 19.15.29.12 NMAC^[1]), and to determine whether stable ground exists (as defined by 19.15.2 NMAC Definitions^[2]) within 200 feet of the spill delineation boundary of the Matador Marbob State No. 001 release as provided by the client via e-mail (**Marbob State No. 001 Off Pad.kmz** and **Marbob State No. 001 On Pad.kmz**) on June 17, 2025, using electrical resistivity imaging^[3].

1.2 Summary of Findings

- **No surface karst features exist within 200 feet (61 meters) of the spill delineation boundary.**
- **No anomalies consistent with subsurface air- or water-filled voids were found within the MS01 geophysical survey area, indicating the zone beneath the geophysical survey is not subject to collapse.**
- **Well-layered stratigraphy is interpreted to exist beneath the area where the geophysical survey was conducted, indicating stable ground within the 200-foot survey boundary.**

1.3 Affected Environment

The MS01 project site is located in evaporite karst terrain, a landform that is characterized by underground drainage through solutionally enlarged conduits. Evaporite karst terrain may contain sinkholes, sinking streams, caves, and springs. Sinkholes leading to underground drainages and voids are common. These karst features, as well as occasional fissures and discontinuities in the bedrock, provide the primary sources for rapid recharge of the groundwater aquifers of the region. Additionally, karst may develop by hypogene processes involving dissolution by upwelling fluids from depth independent of recharge from the overlying or immediately adjacent surface. Hypogene karst systems may not be connected to the surface and can remain undiscovered unless encountered during drilling or excavation.

Karst features are delicate resources that are often of geological, hydrological, biological, and archeological importance, and should be protected. The four primary concerns in these types of terrain are environmental issues, worker safety, equipment damage, and infrastructure integrity.

The Bureau of Land Management (BLM) categorizes all areas within the Carlsbad Field Office (CFO) zone of responsibility as having either low, medium, high, or critical cave potential based on geology, occurrence of known caves, density of karst features, and potential impacts to freshwater aquifers^[4]. These designations are also recognized by the New Mexico State Land Office (NMSLO). This project occurs within a **HIGH** karst occurrence zone (HKOZ)^[5] (**Figure 1**).

A high karst occurrence zone is defined as an area in known soluble rock types that contains a high frequency of significant caves and karst features such as sinkholes, bedrock fractures that provide rapid recharge of karst aquifers, and springs that provide riparian habitat^[4].

Due to the rapidity with which evaporite karst develops, each location within a BLM-CFO designated critical or high karst occurrence zone must be assessed on an individual basis to determine the existence of surface karst features and the possibility of sub-surface karst development each time a release occurs.

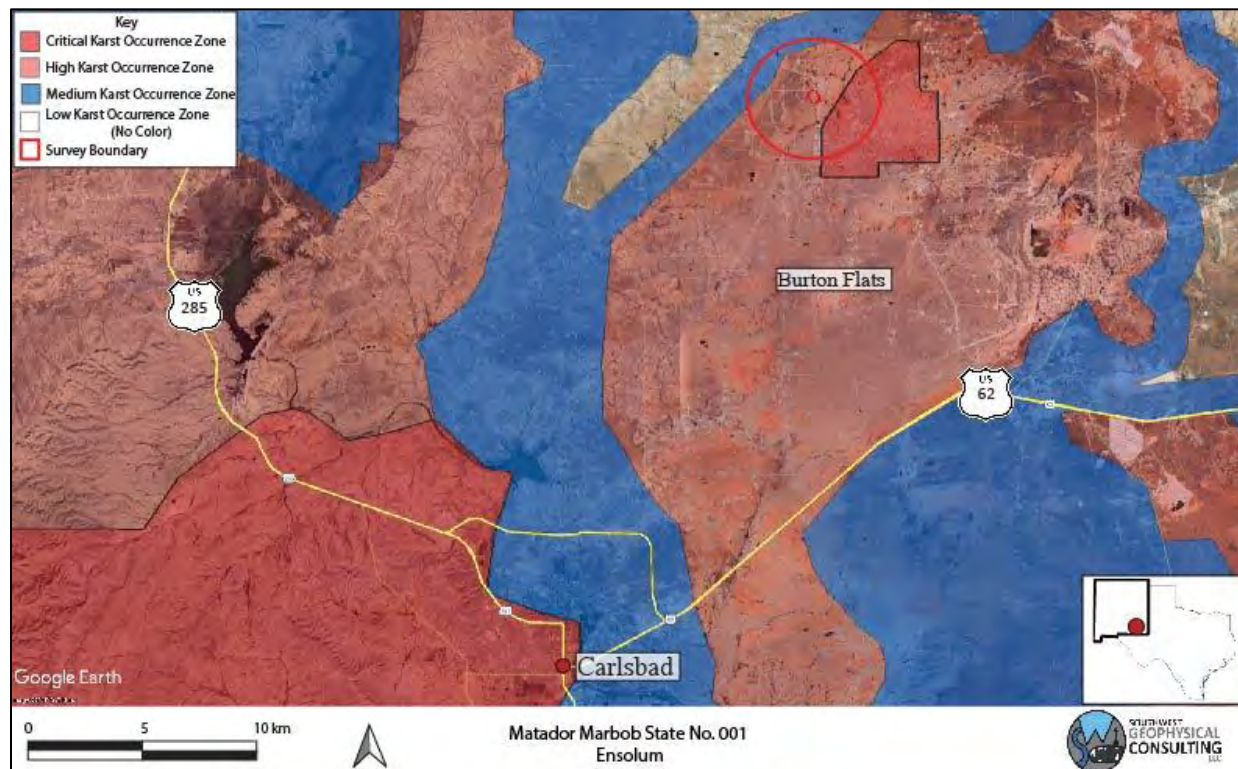


Figure 1: Karst occurrence zone overview. Background image credit: Google Earth. Image date: July 13, 2024. Image datum: WGS-84.

1.4 Limitations of Report

This report should be read in full. No responsibility is accepted for the use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

This report has been prepared for the use of Ensolum, LLC, in accordance with generally accepted consulting practices. Every effort has been made to ensure the information in this report is accurate as of the time of its writing. This report has not been prepared for use by parties other than the client, their contracting party, and their respective consulting advisors. It may not contain sufficient information for the purposes of other parties or for other uses.

This report was prepared upon completion of the associated fieldwork using a standard template prepared by Southwest Geophysical Consulting and is based on information collected prior to fieldwork, conditions encountered on site, and data collected during the fieldwork and reviewed at the time of preparation. Southwest Geophysical Consulting disclaims responsibility for any changes that might have occurred at the site after this time. The interpreted results, locations, and depths noted in this report (if applicable) should be taken as an interpretation only and no decision should be based solely on this information. Physical verification of aerial imagery analysis results should be conducted in the field prior to using this information for remediation planning. Physical verification of geophysical results using geotechnical methods should be conducted.

To the best of our knowledge, the information contained in this report is accurate at the date of issue. Due to the nature of karst terrain, the information in this report shall not be used beyond two years past the date of the field work provided in section **2.3 Description of Survey**. Large weather events can shorten this time period as areas subject to karst development can rapidly form new features subsequent to these events.

2.0 LOCATION AND DESCRIPTION OF STUDY AREA

2.1 Description of Site

The site is located 28.3 kilometers (17.6 miles) northeast of Carlsbad, New Mexico, south of Curry Comb Road and east of Buckskin Road. The release area is located within the NE $\frac{1}{4}$ section of section 19; NM T19S R29E^[6] (**Figure 1** and **Figure 2**). The region has rolling terrain with karstification occurring in the gypsite soils and underlying gypsum and dolomite bedrock^[7] (see section **2.2 Local Geology Summary** for further information). The climate in this area of southeast New Mexico is semi-arid with an average annual precipitation of approximately 13 inches, of which about two-thirds falls as rain during summer thunderstorms from June to October. Summers are hot and sunny while winters are generally mild, with an average maximum temperature of 96°F in July and an average minimum temperature of 28°F in January^[8]. This area is within the Chihuahuan Desert Thornscrub as defined by the Southwestern Regional ReGAP Vegetation map^[9] and the vegetation consists mostly of areas of blue grama, nine-awned pappus grass, burro grass and low scrub including yucca. The spill delineation boundary is located within an HKOZ^[5] (**Figure 1**) and within NMSLO managed land^[10] (**Figure 2**).



Figure 2: Land ownership and PLSS overview. Background image credit: Google Earth. Image date: July 13, 2024. Image datum: WGS-84.

2.2 Local Geology Summary

The site for the MS01 survey is located at an elevation of 1,024 meters (3,360 feet), $\pm$ 6 meters (19.7 feet). This region is entirely underlain by the Permian Rustler Formation (Pru). The area is mantled by thin gypsiferous soils (gypsite), Quaternary alluvial piedmont gravels (Qp), eolian deposits (Qe), and alluvium (Qal)^[11] up to 5 meters in depth (**Figure 3**).

The Rustler Formation is an evaporite facies composed mainly of thin siltstones and sandstones interbedded with claystones, dolomite, and gypsum, and contains both karst-forming strata (the Forty-niner and Tamarisk members) and two shallow aquifers (the Magenta and Culebra Dolomite members)^[12].

The Pru overlies the Permian Salado Formation (Psl – not shown in the below image), a layer of extremely soluble halite which can readily dissolve to create caves, sinkholes, and other karst features; however, due to its extremely soluble nature, only non-soluble silt and sand remain from the dissolution of this layer at the surface^[12]. The Rustler Formation may be subject to collapse if a void has developed beneath it in the Salado Formation^[13].

The survey area is covered by the easily accessible Geologic Map of New Mexico (2003) at 1:500,000 scale^[14] and the Digital Geologic Map of New Mexico in ARC/INFO Format^[11].

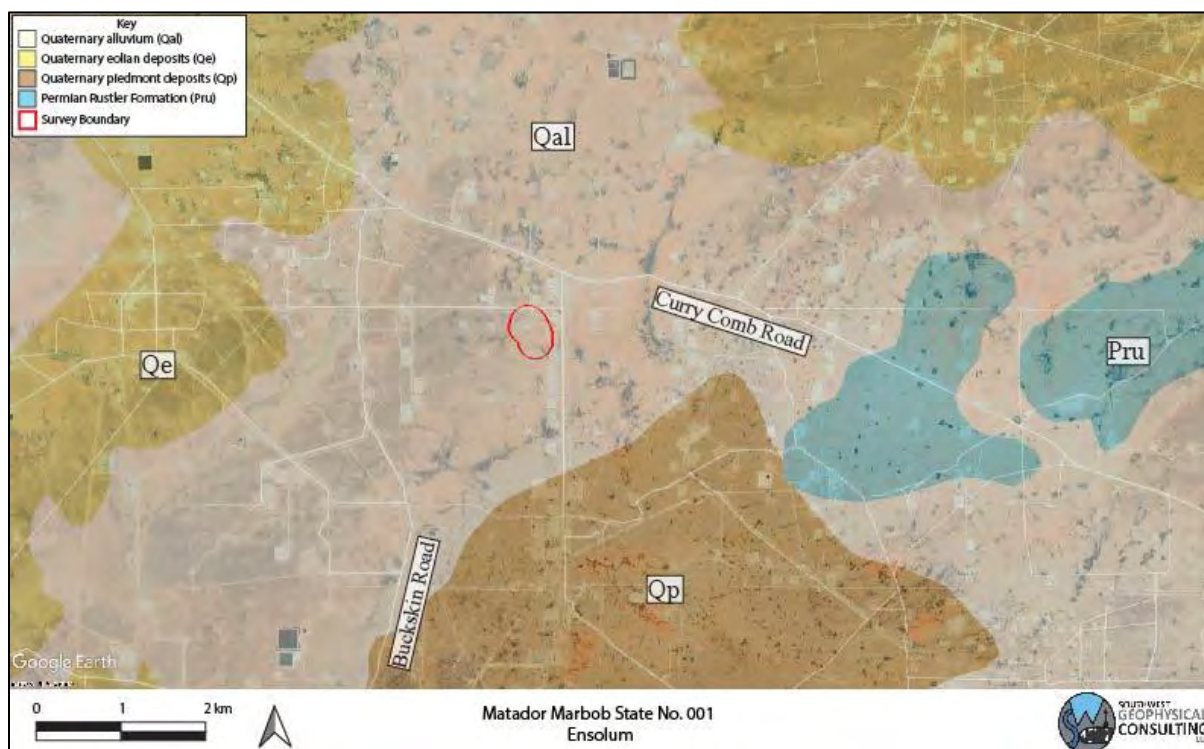


Figure 3: Geology overview. Geology map credit: The Digital Geologic Map of New Mexico in ARC/INFO Format. Background image credit: Google Earth. Image date: July 13, 2024. Image datum: WGS-84.

2.3 Description of Survey

2.3.1 Surface Karst Survey

Southwest Geophysical Consulting, in partnership with SWCA Environmental Consultants, provides surface karst surveys using small, uncrewed aerial systems (sUAS) that are flown by qualified, FAA licensed drone pilots and that meet the stringent Bureau of Land Management – Carlsbad Field Office requirements for both pedestrian and aerial karst surveys.

The surface karst survey includes a desk study prior to the flight which allows us to provide client feedback in the event of any previously known karst features in the area. The desk study is performed out to 305 meters (1,000 feet) from the spill delineation boundary per New Mexico Oil Conservation Division guidance ^[1] (**Figure 4**). The study was performed using satellite and aerial imagery from Google Earth Pro dated July 13, 2024 (please note features less than one meter in diameter are generally not visible using this method); the Southwest Geophysical Cave and Karst Database dated May 20, 2025^[15]; the Illinois Camp NE, NM, 1:24,000 quad, 1985, USGS topographic map; and the latest lidar imagery from CalTopo.com. Please note that we use older topographic maps because newer maps have had caves removed from them. These searches and queries returned one karst feature within the 305-meter survey boundary.

Surface karst surveys are conducted by sUAS at low elevation within 200 meters of the spill delineation boundary^[4] (**Figure 4**) following a preplanned raster pattern flightpath designed for the purpose of generating at least 75% imagery overlap. The collected high-resolution, georeferenced imagery is stitched together to develop orthomosaic imagery which is further developed into a digital elevation model (DEM); the DEM is then processed into a local relief model (LRM) (**Figure 6**). This LRM is color coded to enhance differences in elevation of as little as five centimeters. The orthoimagery, DEM, and LRM are uploaded to a server where they are analyzed by an experienced karst geologist. Finally, the data is reviewed by a senior karst geologist for quality assurance and downloaded into a table for inclusion in a written report^[16].

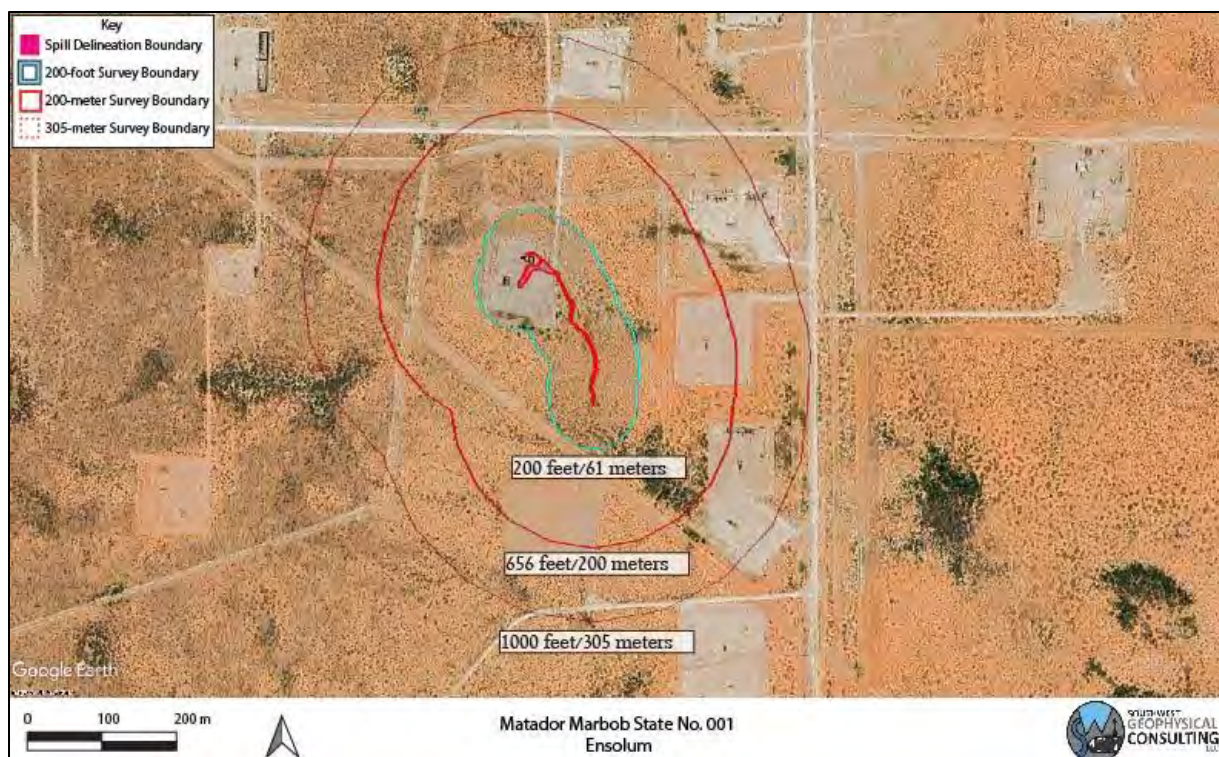


Figure 4: Surface survey overview. Background image credit: Google Earth. Image date: July 13, 2024. Datum: WGS-84.

The resolution of the orthoimagery is clear enough that features as small as 10 centimeters can be positively identified in most circumstances. Occasionally there are ambiguous features identified during an aerial survey that will need to be checked in the field if they are impacted by the proposed remediation efforts. Specifically, it is difficult to tell the difference between solution tubes, abandoned uncased well bores, and some burrows in drone imagery. If an ambiguous feature is located during imagery analysis, it is marked with a yellow dot in **Figure 6**. If a feature of any likelihood is subsequently verified in the field prior to publication of the report, the dot will be changed to a red triangle if confirmed as a karst feature or deleted if not.

The imagery for this study was collected via aerial survey by Pat Lagodney of SWCA on June 23, 2025. Surface karst features may have developed after this date and will not be noted in this report. Imagery analysis was completed by Britt Bommer of Southwest Geophysical Consulting on July 3, 2025.

2.3.2 Geophysical Survey

For this survey, a Guideline Geo Terrameter LS 2 and a 42-electrode array of 40-centimeter-long electrodes were used to image the subsurface. This survey consisted of one resistivity line in a dipole-dipole configuration laid out south to north. This line consisted of 42 electrodes at 5-meter spacing, resulting in a 205-meter-long array (**Figure 5, Table 1**). A preconfigured protocol file was used to run the data collection (DipoleDipole3x14). This electrode configuration provided a depth of investigation of 41 meters (135 feet) and a resolution of 2.5 to 3.0 meters (8.2 to 9.8 feet) within the first 5 to 8 meters (16 to 26 feet) from the surface. A Leica GS18 GPS was used to record electrode locations and elevations.

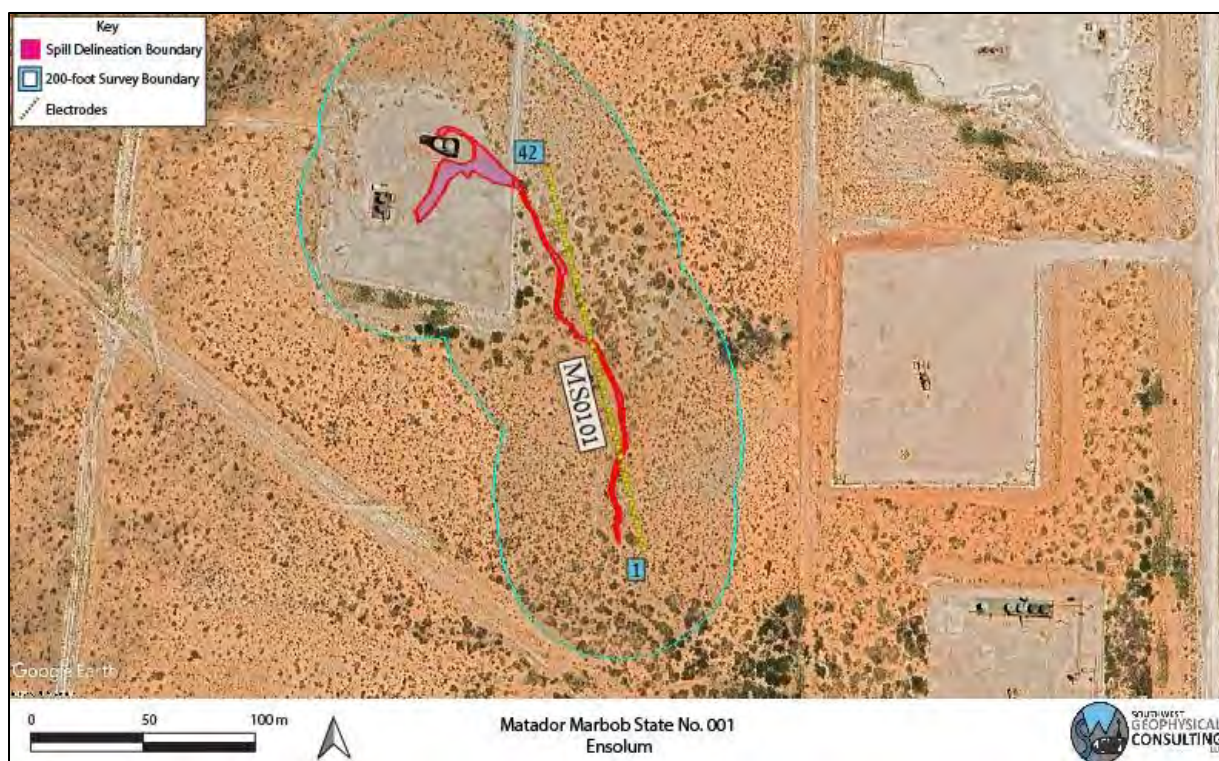


Figure 5: Geophysical survey overview. One survey line was conducted with 42 electrodes at 5-meter spacing (yellow dots denoted with blue numbers). Background image credit: Google Earth. Image date: July 13, 2024. Image datum: WGS-84.

Table 1 provides basic line data. Detailed information including electrode number, location in latitude/longitude (decimal degree format), and elevation in meters can be found in the accompanying data files.

Table 1: Survey Line Data Table. The .kmz file contains all the points for the survey line listed in the file name. These data are available in the accompanying files MS01_ERI_Points.xlsx and ENS-013-20250617_MS01_Data_Files.kmz.

File Name:	Completed By:	Date:
MS0101.kmz	Garrett Jorgensen Olague – Senior Field Geologist Britt Bommer – Field Geologist Steven Kesler – Field Geologist	7/8/2025

EarthImager™ 2D software was used to download and process the data and to provide the model used to make our interpretations. The design of the survey and the orientation of each of the lines provides the information necessary to make the determination of “stable” or “unstable” ground at this site.

A typical starting model was used for the data processing due to the two-layer model of the geology in the area; specifically, generally high-resistivity gypsum and dolomite at the surface and low-resistivity saturated gypsum and dolomite bedrock at depth. The starting model used was “average apparent resistivity” and a default inversion setting of “surface,” with a minimum apparent resistivity set to 0.1 Ohm-meters (Ohm-m or Ω -m) and a max apparent resistivity set to 100,000 Ω -m (**Table 2**).

Table 2: Software Information and Settings

Software Name:	EarthImager™ 2D
Version:	2.4.4.649
Starting Model:	Average Apparent Resistivity
Default Inversion Settings:	Surface
Changes to Default Inversion Settings:	Max Apparent Resistivity = 100 k Ω -m Min Apparent Resistivity = 0.1 Ω -m

Note: Raw data files (.dat files for EarthImager™ 2D) and processed data (.trn files, terrain files for surface correction in EarthImager™ 2D and .out files, the processed .dat files) are available upon request.

All field work, including setup, stow, and travel, was completed by Garrett Jorgensen Olague, Britt Bommer, and Steven Kesler on July 8, 2025.

3.0 RESULTS

3.1 Surface Karst Survey

The desk study and surface karst survey showed no surface karst features located within the 200-foot (61-meter)^[1] survey area surrounding the spill delineation boundary (Figure 6).

One recognized surface karst feature is located within the 305-meter survey boundary (Figure 6, Table 3). Recognized surface karst features are features that are positively identified in either satellite or aerial imagery as karst features and the features have been visited by a qualified karst professional in the field and fully identified. Images for the feature are available on request.

No springs exist within the 305-meter (1,000-foot)^[1] survey boundary (Figure 6).

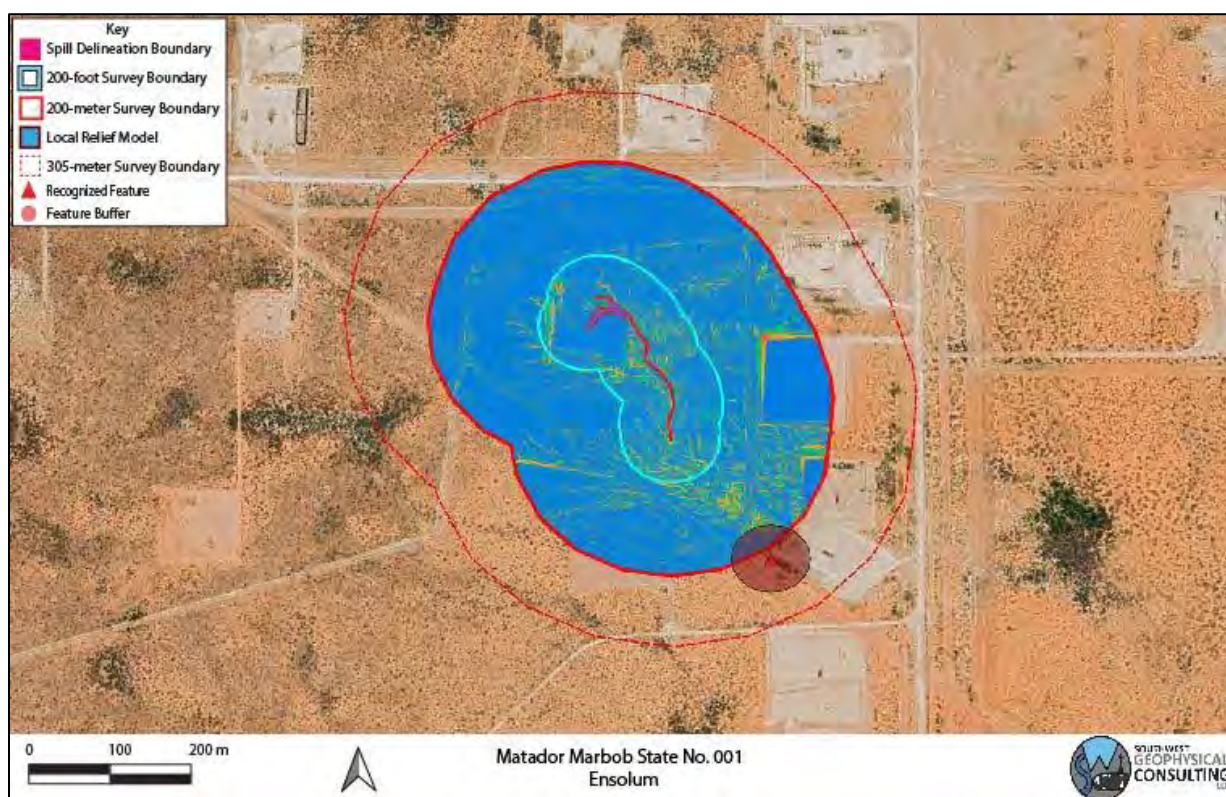


Figure 6: Surface karst survey results. Background image credit: Google Earth. Image date: July 13, 2024. Image datum: WGS-84.

Caution should be exercised while operating in or around all karst-related features due to the possibility of near-surface voids. Employing a BLM-CFO approved karst monitor on site during these activities should be considered.

Table 3 contains a list of features identified during the surface karst survey and subsequent imagery analysis. Each feature is identified with a feature identification number (Feature ID), the type of feature, estimated size (in meters), recommended buffer (in meters), the likelihood of this feature being a surface karst feature (modifiers H/M for high or medium likelihood, V for field verified), and its location in WGS-84/UTM-13 (EPSG: 32613).

Table 3: Surface Karst Feature Data Table

KF Status	Feature ID	Type	Size (m)	Buffer (m)	Mod	Easting	Northing
RKF	240104-G114	Collapse Feature	0.4	50	V	583905.474	3612690.678

NOTE: Location data provided in WGS-84/UTM 13N. RKF – recognized karst feature.

3.2 Geophysical Survey

Electrical resistivity tomography forms images of the subsurface by causing a current to flow through the rock and soil and then measuring the resistance of these materials as the current flows through them. This measurement is taken many times and the resulting data, once processed, is used to produce a model of the subsurface (**Figure 7**). This model is produced using "non-unique" solutions, which means that there are many models and interpretations which will satisfy the data. Using experience and knowledge of the local geology, a high-confidence model can be established and used to develop an accurate understanding of what lies below the surface. This survey was conducted with the express purpose of locating subsurface voids and does not purport to find paleokarst (old, non-active karst features that have been filled in with sand and sediment) or nascent karst features below the resolution limit of the survey.

The results of this study indicate a moderately well-layered geologic system with low resistivities between 19.2 and 240 Ohm-m (**Figure 7**). Please keep in mind when viewing the 2D inverted resistivity sections that color maps can be widely different for each view. Always check the color map located on the right side of the image when viewing the 2D images to ensure you understand the range of resistivities presented. Distances along the top and depths along the left side are in meters. The color map along the right side is in Ohm-m. Due to the nature of the survey, shallower zones have higher resolution between electrodes than deeper zones; therefore, small features at depth will not be visible.

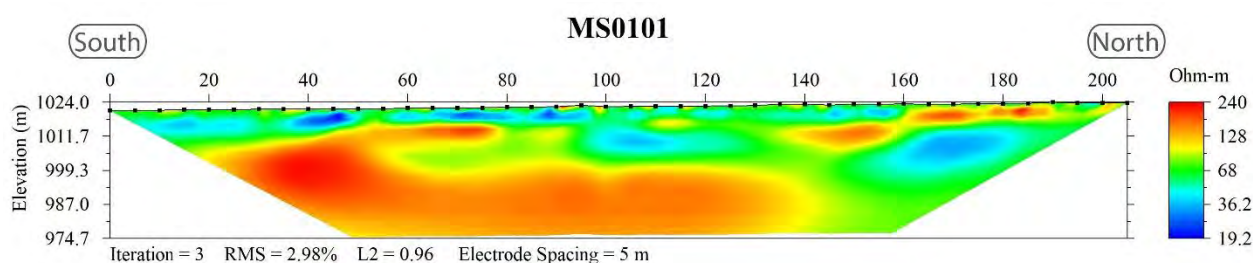


Figure 7: 2D inverted resistivity section. Reds and oranges indicate higher resistivity values. Yellows and greens are medium-resistivity values. Blues are low-resistivity values. Please note that the color scale is relative.

4.0 DISCUSSION

No surface karst features exist within 200 feet of the spill delineation boundary. One recognized surface karst feature exists outside the 200-meter survey boundary, but within the 305-meter survey boundary. This feature is associated with the nearby pipeline and may be either trench collapse caused by soil settling or karst related, with soil raveling into a solution-enlarged fracture or small void beneath the pipeline.

No anomalies consistent with air-filled subsurface voids are found within the MS01 survey area. Small solutionally enlarged voids or fractures at or near the resolution limit of the survey (2.5 – 3.0 meters) may be present. Areas of moderate resistivity (yellows, and greens) near the surface are interpreted as dry gypsite soils and gypsum or dolomite bedrock of the Rustler Formation^[17] (**Figure 7** and **Figure 8**). Very low-resistivity areas between 19.2 – 25 Ohm-m may either represent fluid from the brine release, surface-to-subsurface hydrologic pathways, or a layer of either clays and halite lenses or moist or saturated layers within the Rustler Formation (**Figure 7**).

Please remember that these are interpretations made from knowledge of the local subsurface materials and experience. **They remain interpretations until verified by geotechnical methods.** Employing a BLM-CFO approved karst monitor on site during any drilling and/or remediation activities that require excavation below four feet in depth should be considered.

Fracture sets within the subsurface can act as hydrologic pathways to the water table. Rapid dissolution of gypsum can occur along these pathways creating solution-enlarged fractures, and in some cases, voids within months to years. For this reason, this survey is valid only for this remediation event.

Within karst terrains like the project site, small air- or sediment-filled voids and/or brecciated zones and solutionally enlarged fractures that are below the resolution limit of the survey (2.5– 3.0 meters) may exist; these may be encountered during excavation, and if so, should be evaluated by a karst specialist prior to continued work.

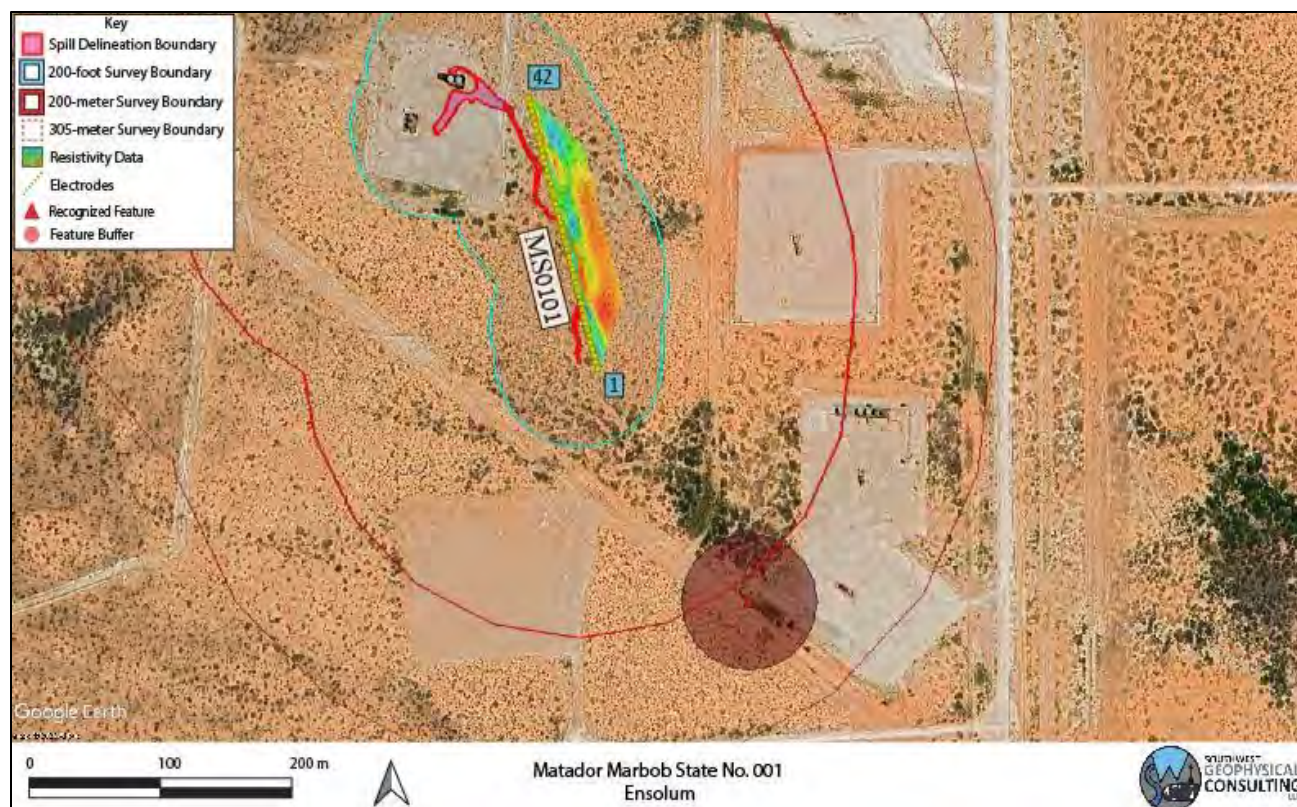


Figure 8: Data overlay. Colored trapezoid is the 2D inverted resistivity line. Background image credit: Google Earth. Image date: July 13, 2024.

5.0 SUMMARY

- **The MS01 survey contains no surface karst features within 200 feet (61 meters) of the spill delineation boundary.**
- One recognized surface karst feature exists within the 305-meter survey boundary.
- **No shallow anomalies interpreted as large voids or related karst features that would present a danger to equipment operators are located within the geophysical survey area.**
- Intercepting a void during remediation is unlikely, but still possible. Small voids or solutionally enlarged fractures below the resolution limit of the survey may be encountered.
- **Well-layered stratigraphy is interpreted to exist beneath the geophysical survey line, indicating stable ground in the area of the subsurface investigation.**
- When conducting any remediation activities in this area, employing a BLM-CFO approved karst monitor on site should be considered.

6.0 DISCLOSURE STATEMENT

Karst occurrence zones are prone to rapid karst formation and warrant careful planning and engineering to mitigate karst-forming processes that could be accelerated by removal of surface cover or the vibrations associated with heavy equipment used in the remediation process.

Mitigation measures for any karst features revealed during excavation shall be approved by the Bureau of Land Management – Carlsbad Field Office and follow the Natural Resources Conservation Service Conservation Practice Standard for Karst Sinkhole Treatment, Code 527, or the Bureau of Land Management Cave and Karst Management Handbook, H-8380-1.

Vigilance during remediation activities is paramount. If voids are encountered during excavation, contact the Bureau of Land Management Karst Division at (575) 234-5972, the New Mexico State Land Office Surface Resources Division at (505) 827-5768, or a BLM-CFO approved karst contractor and request an on-site investigation from a karst expert if one is not already on site. A karst consultant can generally be available in Eddy County within five hours.

Approved karst monitors should have karst feature identification training, at least two years of supervised experience identifying karst features, wilderness first aid training, SRT training, confined space training, gas monitor training, and a minimum of SPAR cave rescue training through NCRC. They should have with them the proper gear and be prepared both physically and mentally to enter a collapse feature within minutes to perform a rescue if needed. Monitoring services with qualified karst monitors, as well as cave surveys and geophysical surveys, are available from Southwest Geophysical Consulting.

Under no circumstances should an untrained, inexperienced person enter a cave, pit, sinkhole, or collapse feature. All field employees of Southwest Geophysical Consulting have extensive caving experience and the ability to determine whether entry into a karst feature is safe or presents a hazard. In the event it is necessary to enter a karst feature, Southwest Geophysical Consulting can provide these services on request.

Cave and karst resource inventory reports, karst feature investigations, and geophysical reports (along with the associated data files) commissioned at the request of the land manager should be submitted to BLM-CFO at blm_nm_karst@blm.gov.

Cave and karst resource inventory reports for the NMSLO should be submitted to the respective project manager.

Environmental karst reports should be submitted to the appropriate project manager at the New Mexico Oil Conservation Division.

7.0 REFERENCES

- 1 Division, O. C. *Title 19, Chapter 15, Part 29* (Oil Conservation Division, 2018).
- 2 NMSLO. (ed Oil Conservation Division) (New Mexico State Land Office, Santa Fe, NM, 2018).
- 3 Decker, D. & Jorgensen, G. L. *Environmental Karst Surveys White Paper* (Southwest Geophysical Consulting, LLC, 2024).
- 4 Goodbar, J. R. Vol. BLM Management Handbook H-8380-1 (ed Carlsbad Field Office) 59 (Bureau of Land Management, Denver, CO, 2015).
- 5 Decker, D., Trautner, E. & Palmer, R. (Bureau of Land Management - Carlsbad Field Office, 2025).
- 6 Earthpoint. *Earthpoint Tools for Google Earth*, <<https://www.earthpoint.us/Townships.aspx>> (2022).
- 7 Decker, D. D., Land, L. & Luke, B. Characterization of Playa Lakes in the Gypsum Karst of Southeastern New Mexico and West Texas, USA. *Oklahoma Geological Survey Circular 113* **113** (2021).
- 8 W.R.C.C. *National Climate Data Center 1981-2010 Normal Climate Summary for Carlsbad, New Mexico (291469)*, 2010).
- 9 Whitehead, W. & Flynn, C. *Plant Utilization in Southeastern New Mexico: Botany, Ethnobotany, and Archaeology*. (Bureau of Land Management, Carlsbad Field Office, 2017).
- 10 NMSLO. Digital overlay (KML) of the surface land ownership in New Mexico (New Mexico State Land Office, Santa Fe, NM, 2024).
- 11 Green, G. N. & Jones, G. E. *The Digital Geologic Map of New Mexico in ARC/INFO Format*, <<https://mrdata.usgs.gov/geology/state/state.php?state=NM>> (1997).
- 12 Austin, G. S. *Geology and mineral deposits of Ochoan rocks in Delaware Basin and adjacent areas*. Vol. Circular 159 (New Mexico Bureau of Mines and Mineral Resources, 1978).
- 13 Johnson, K. S. Evaporite Karst in the United States. *Carbonates and Evaporites* **12**, 2-14 (1997).
- 14 Scholle, P. A. *Geologic Map of New Mexico*. (2003).
- 15 Decker, D. D., Jorgensen, G. L. & Palmer, R. in *Southwest Geophysical Cave and Karst Database* (ed LLC Southwest Geophysical Consulting) (Albuquerque, NM, 2025).

- 16 Whitehead, W., Bandy, M. & Decker, D. Protocol for Using UAV Photography for Rapid Assessment of Karst Features in Southeast New Mexico. *Proceedings of the 2022 Cave and Karst Management Symposium* (2022).
- 17 Hill, C. A. *Geology of the Delaware Basin, Guadalupe, Apache and Glass Mountains, New Mexico and West Texas*. Vol. 96-39 (Permian Basin Section - SEPM, 1996).

8.0 GLOSSARY OF TERMS

AGI	Advanced Geosciences Inc.
BLM-CFO	Bureau of Land Management - Carlsbad Field Office
brecciated	Fractured rock caused by faulting or collapse.
caprock-collapse sinkhole	Collapse of roof-spanning rock into a cave or void.
cave	Natural opening at the surface large enough for a person to enter.
cover-collapse sinkhole	Collapse of roof-spanning soil or clay ground cover into a subsurface void.
ERI	Electrical Resistivity Imaging
GPS	Global Positioning System
grike	A solutionally enlarged, vertical, or sub-vertical joint or fracture.
(H)	High confidence modifier for a PKF. This is typically reserved for a feature that is definitely karst but has not been confirmed in the field.
HKOZ	High Karst Occurrence Zone
karst	A landscape containing solutional features such as caves, sinkholes, swallets, and springs.
(L)	Low confidence modifier for a PKF. This is typically a feature that cannot be ruled out as karst but is most likely NOT karst related. This modifier may also be used for pseudokarst features.
(M)	Medium confidence modifier for PKF. This is an ambiguous feature that can't be positively identified as karst without a field visit (e.g., burrows, abandoned unlined wells, solution tubes, pseudokarst).
MKOZ	Medium Karst Occurrence Zone
NCRC	National Cave Rescue Commission
NKF	Non-karst feature. Used for features originally identified as PKF that have been subsequently identified in the field as non-karst related. This term may also be used for pseudokarst features.
NMSLO	New Mexico State Land Office
Ohm-m	Ohm-meter, a unit of measurement for resistivity. Sometimes abbreviated Ω -m.
paleokarst	Previously formed karst features that have been filled in by erosion and/or deposition of minerals.
Pat	Permian Artesia Group
Pc	Permian Capitan Formation
Pcs	Permian Castile Formation
Pdl	Permian Dewey Lake Formation
PKF	Possible karst feature. This term is reserved for features identified in satellite or aerial imagery that have NOT been visited in the

	field. Further modifiers include (H) for high confidence, (M) for medium confidence, and (L) for low confidence. These confidence levels are based on field experience.
PLSS	Public Land Survey System
Pqg	Permian Queen/Greyburg Formation
Pru	Permian Rustler Formation
pseudokarst	Karst-like features (sinkholes, conduits, voids etc.) that are not formed by dissolution. These types of features include soil piping, lava tubes, and some cover-collapse and suffosion sinkholes.
Psl	Permian Salado Formation
Psr	Permian Seven Rivers Formation
Pt	Permian Tansill Formation
Py	Permian Yates Formation
Qal	Quaternary alluvium
Qe	Quaternary eolian deposits
Qp	Quaternary piedmont deposits
Qpl	Quaternary playa lake deposits
RKF	Recognized karst feature. This term is reserved for karst features that have been physically verified in the field.
SPAR	Small Party Assisted Rescue
sUAS	Small, uncrewed aerial system
suffosion sinkhole	Raveling of soil into a pre-existing void or fracture.
swallet	A natural opening in the surface, too small for a person, that drains water to an aquifer. Some are "open," meaning a void can be seen below; some are "closed," meaning they are full of sediment.
SWG	Southwest Geophysical Consulting, LLC
UTM	Universal Transverse Mercator (projected coordinates)
(V)	Field verified modifier for a RKF. This indicates that the feature has been visited by a qualified karst professional in the field and fully identified
WGS	World Geodetic System (geographic coordinates)

9.0 ATTESTATION

David D. Decker, PhD, PG, CPG

Chief Executive Officer, Principal Geologist

Southwest Geophysical Consulting, LLC

5117 Fairfax Dr. NW

Albuquerque, NM 87114

dave@swgeophys.com

(505) 585-2550

CERTIFICATE OF AUTHOR

I, David D. Decker, a Licensed Professional Geologist and a Certified Professional Geologist, do certify that:

- I am currently employed as a consulting geologist in the specialty of caves and karst with an office address of 5117 Fairfax Dr. NW, Albuquerque, NM, USA, 87114.
- I graduated with a Master of Science in Applied Physics with a specialization in Sensor Systems from the Naval Post Graduate School in Monterey, California, in 2003, and a Doctor of Philosophy in Earth and Planetary Sciences from the University of New Mexico, Albuquerque, New Mexico, in 2018.
- I am a Licensed Professional Geologist in the State of Texas, USA (PG-15242) and have been since 2021. I am a Certified Professional Geologist through the American Institute of Professional Geologists (CPG-12123) and have been since 2021.
- I have been employed as a geologist continuously since 2016. I was previously employed as a Fire Controlman, Naval Flight Officer, and Aerospace Engineering Duty Officer in the U.S. Navy and operated, maintained, and installed various sensor systems including magnetic, electromagnetic, radar, communications, and acoustic systems in various capacities from 1986 through 2010.
- I have been involved in various aspects of cave and karst studies continuously since 1985, including exploration, mapping, and scientific studies.
- I have read the definition of “qualified karst professional” set out in the ASTM Standard Practice for Preliminary Karst Terrain Assessment for Site Development (ASTM E-1527). I meet the definition of “qualified professional” for the purposes of this standard.
- I am responsible for the content, compilation, and editing of all sections of report number ENS-013-20250617 entitled, “Environmental Karst Study Report, Matador Marbob State No. 001, Eddy County, New Mexico.” I or a duly authorized and qualified representative of Southwest Geophysical Consulting, LLC, have personally visited this site and/or reviewed the aerial imagery on the date or dates mentioned in section **2.3 Description of Survey**.

- I have no prior involvement nor monetary interest in the described property or project, save for my fee for conducting this investigation and providing the report.

Dated in Albuquerque, New Mexico, July 21, 2025.



David D. Decker
PhD, CPG-12123





APPENDIX C

NMSLO Cultural Resources Cover Sheet



Stephanie Garcia Richard, Commissioner of Public Lands
State of New Mexico

NMSLO Cultural Resources Cover Sheet Exhibit

NMCRIS Activity Number:

(if applicable)

Exhibit Type (select one)

ARMS Inspection/Review - Summarize the results (select one):

- (A) The entire area of potential effect or project area has been previously surveyed to current standards and **no cultural properties** were found within the survey area.
- (B) The entire area of potential effect or project area has been previously surveyed to current standards and **cultural properties were found** within the survey area.
- (C) The entire area of potential effect or project area has **not** been previously surveyed or **has not been surveyed** to current standards. A complete archaeological survey will be conducted and submitted for review.

Archaeological Survey

Findings:

Negative - No further archaeological review is required.

Positive - Have avoidance and protection measures been devised? Select one:

Comments:

Project Details:

NMSLO Lease Number (if available):

Cultural Resources Consultant:

Project Proponent (Applicant):

Project Title/Description:

Project Location:

County(ies):

PLSS/Section/Township/Range):

For NMSLO Agency Use Only:

NMSLO Lease Number:

Acknowledgment-Only:

Lease Analyst:

Date Exhibit Routed to Cultural Resources Office:

No person may alter the wording of the questions or layout of the cover sheet. The completion of this cover sheet by itself does not authorize anyone to engage in new surface disturbing activity before the review and approvals required by the Cultural Properties Protections Rule.

Form Revised 12 22



APPENDIX D

Executed Right-of-Entry Form



State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

Stephanie Garcia Richard
COMMISSIONER

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

August 11, 2025

Matador Production Company
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Attn: Jason Touchet

Re: Right-of-Entry Permit No.: RE-7650 – Matador Production Company

Dear Applicant:

Enclosed is the completed captioned Right-of-Entry permit. If any corrections are necessary, please let us know and we will retype or amend this permit as necessary.

The New Mexico State Land Office requires you to notify any surface lessees that will be impacted by your project prior to construction.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact Christopher Gutierrez at (505) 827-5773 or cgutierrez@nmslo.gov.

Sincerely,


James S. Bordegaray
Director, Commercial Resources Division

JSB/CLG



NEW MEXICO STATE LAND OFFICE
Commissioner of Public Lands
Stephanie Garcia Richard
New Mexico State Land Office Building
P.O. Box 1148, Santa Fe, NM 87504-1148

RIGHT OF ENTRY PERMIT
CONTRACT NO. RE – 7650

This Agreement is made and entered into between the COMMISSIONER OF PUBLIC LANDS (the “Commissioner”) and

Matador Production Company
5400 LBJ Freeway Suite 1500
Dallas, TX 75240

(“Permittee”). The parties agree as follows:

1. RIGHT OF ENTRY (“ROE”)

The Commissioner grants to Permittee, and its authorized representatives, employees, and contractors, permission to use the state trust lands identified below (the “Premises”), and ingress and egress to the Premises, for the sole purposes of (1) surveying/conducting an environmental investigation due to a produced water release on or adjacent to the site of the **Matador Production Company (Incident # NAB1821141249)** and (2) conducting surface reclamation activities, including removal of equipment and debris, and any required remediation per 19.15.29.12 NMAC.

The Premises are situated in the following location in Eddy County, New Mexico:

Section	Township	Range	Subdivision	County	Longitude/Latitude
19	19S	29E	NENE	Eddy	32.6518211/-104.1077576

2. TERM AND TERMINATION

Right of entry is granted for a term of **180 days**, commencing on the execution date of this document by the Commissioner of Public Lands.

3. FEES

\$ 50.00 Application Fee
\$ 500.00 Permit Fee
\$ 550.00 Total Fee

RE-7650

4. CONDITIONS OF USE

- A. The issuance of this ROE does not guarantee that any subsequent lease, permit, or any other instrument will be issued to Permittee for the Premises.
- B. No blading or widening of any roads that provide access to the Premises is permitted under this ROE.
- C. No sale of any material extracted from the Premises is allowed under this ROE.
- D. Permittee shall observe all applicable federal, state, and local laws and regulations.
- E. Permittee shall take all reasonable precautions to prevent and suppress forest, brush, and grass fires and prevent pollution of waters on or in the vicinity of the Premises.
- F. Permittee shall not block or disrupt roads or trails commonly in use.
- G. This ROE is subject to any and all easements and rights-of-way previously granted and now in force and effect.
- H. Permittee shall be responsible for repair and restitution for damage to any Premises or improvements as a result of activities related to the ROE.
- I. Prior to entering the Premises, Permittee must identify and contact any existing surface lessees. The grant of this ROE does not allow access across private lands.
- J. Permittee may utilize this ROE upon its execution for inspection of the Premises and to conduct any necessary tests or inspections. Permittee may not conduct remediation or reclamation work until it has submitted a written plan for such work, and received State Land Office approval.
- K. Personnel present on Premises: **Matador Production Company personnel and authorized contractors.**
- L. Equipment and materials present on Premises: **Vehicles, heavy equipment, and associated equipment.**

5. SITE CONDITIONS

- A. No surface disturbance, other than soil tests, except as described in a reclamation plan submitted to and approved by the State Land Office.
- B. Access to the Premises shall be over existing roads.
- C. The natural environmental conditions that exist contemporaneously with this grant of ROE shall be preserved and protected. Permittee must follow all applicable environmental and cultural resource protection laws and regulations.

6. INDEMNITY

Permittee shall save, hold harmless, indemnify, and defend the State of New Mexico, the Commissioner and Commissioner's employees, agents and contractors, in both their official and individual capacities, from any and all liability, claims, losses, damages, or expenses of any character or nature whatsoever, including but not limited to attorney's fees, court costs, loss of land value or use, third party claims, penalties, or removal, remedial or restoration costs arising out of, or alleged to arise out of Permittee's operations or presence on the Premises (or operations or presence of his representatives, employees, or contractors).

7. SURVIVAL OF TERMS

Permittee's obligations regarding indemnity, site conditions, and compliance with applicable standards and laws, shall survive the termination, cancellation or relinquishment of this Agreement, and any cause of action of the Commissioner to enforce any right, liability, claim, loss, damage or expense under those paragraphs shall not be deemed to accrue until the Commissioner's actual discovery of said right, liability, claim, loss, damage or expense.

8. NOTIFICATION

Permittee must notify the State Land Office immediately in the event Permittee or his representatives, employees, or contractors observe any spill, fire, or other emergency on the Premises, or if Permittee or his representatives, employees, or contractors experience any serious injury while on the Premises.

RE-7650

WITNESS the hands of PERMITTEE and COMMISSIONER on the day(s) and year entered below.

Jason Touchette

PERMITTEE SIGNATURE

DATE: 8/11/2025

Jason Touchette

EHS Specialist

PERMITTEE NAME AND TITLE (PRINT)

SEAL:

BY:

Stephanie Garcia Richard
Commissioner of Public Lands

DATE:

08/13/2025





APPENDIX E

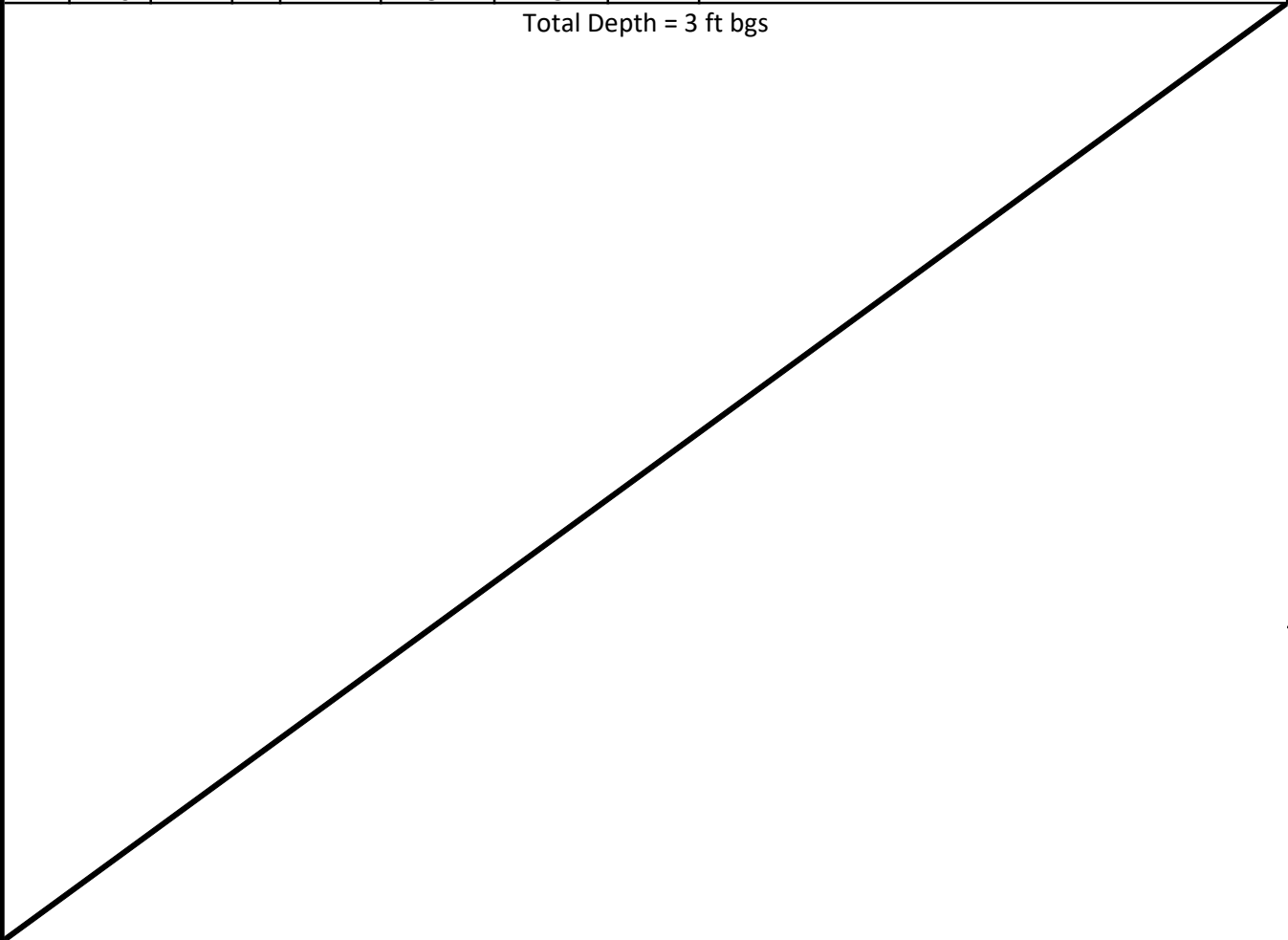
Lithologic Soil Sampling Logs

 ENSOLUM								Sample Name: BH01		Date: 5/14/25	
								Site Name: Marbob State #001			
								Incident Number: NAB1821141249			
								Job Number: 03A227079			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Aboubakar Kone		Method: Backhoe	
Coordinates: 32.6518211, -104.1077576								Hole Diameter: 2 ft		Total Depth: 15 ft	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	3,460				0	0	CCHE	Caliche pad Material, Tan, Well graded, No Stain			
	1,338				1	1	SW-SM	Well Graded Light Brown Sand, Fine to Medium Grain, Non Cohesive, Massive, Non Stain			
M	3,225				2	2	SW	Well Graded Light Brown Sand, Fine to Coarse Grain, Non Plastic, Massive, Non Stain, Trace of Gypsum			
	2,816				3	3					
	3,460				4	4					
	2,637				5	5	SW-SM	Well Graded Brown Sand, Fine Grain, Non Cohesive, Massive, Non Stain, Trace of Gypsum			
	1,775				6	6	SC	Clayey Sand, Trace of Gypsum, Non Plastic, No Stain, Massive.			
	2,027				7	7	CH	DarkBrownFatClay,Traceofgypsum,High Plasticity NonStain,Massive			
	1,775				8	8					
	1,237				10	10	SP	Poorly Graded Fine Brown Sand, Non Plastic, No Stain, Massive.			
1,148				12	12						
				15	15						
Total Depth = 15 ft bgs											

 ENSOLUM								Sample Name: BH02		Date: 5/14/25	
								Site Name: Marbob State #001			
								Incident Number: NAB1821141249			
								Job Number: 03A227079			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Aboubakar Kone		Method: Backhoe	
Coordinates: 32.6518211, -104.1077576								Hole Diameter: 2 ft		Total Depth: 10 ft	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG® for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D M	1,898			BH	0	0	CCHE	Caliche pad Material, Tan, Well graded, No Stain, Trace of Gypsum.			
	1,775				1	1	SW-SM	Well Graded Light Brown Sand, Fine to Medium Grain, Non Cohesive, Massive, Non Stain			
	1,898				2	2	SW	Well Graded Light Brown Sand, Fine to Coarse Grain, Non Plastic, Massive, Non Stain, Trace of Gypsum			
	2,027				3	3					
	1,775				4	4					
	1,439		N		5	5	SW-SM	Well Graded Brown Sand, Fine Grain, Non Cohesive, Massive, Non Stain, Trace of Gypsum			
	968				6	6	SM	Clayey Sand, Trace of Gypsum, Non Plastic, No Stain, Massive.			
	599				7	7	CH	Dark Brown Fat Clay, Trace of gypsum, High Plasticity, No Stain, Massive			
	599				8	8					
	207				9	9	SP	Poorly Graded Fine Brown Sand, Non Plastic, No Stain, Massive.			
			10	10							
Total Depth = 10 ft bgs											

								Sample Name: BH03		Date: 5/14/25		
								Site Name: Marbob State #001				
								Incident Number: NAB1821141249				
								Job Number: 03A227079				
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Aboubakar Kone		Method: Trachoe		
Coordinates: 32.6518211, -104.1077576								Hole Diameter: 2 ft		Total Depth: 10 ft		
Comments: Field screening conducted with HACH Chloride Test Strips and TPH for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.												
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions				
D M	1,338				0	0	CCHE	Caliche pad Material, Tan, Well graded, No Stain				
	1,337				1	1	SW-SM	Well Graded Light Brown Sand, Fine to Medium Grain, Non Cohesive, Massive, No Stain, Trace of gypsum				
	2,167				2	2	SW	Well Graded Light Brown Sand, Fine to Coarse Grain, Non Plastic, Massive, Non Stain, Trace of Gypsum				
	2,027				3	3						
					4	4						
	1,545			N	BH	5	5	SW-SM	Well Graded Brown Sand, Fine Grain, Non Cohesive, Massive, Non Stain, Trace of Gypsum			
	1,148					6	6	SM	Dark Brown Clayey Sand, Trace of Gypsum, Non Plastic, No Stain, Massive.			
	968					7	7	CH	Dark Brown Sandy Clay, Well Graded, fine grain, No-Stain, High Plasticity, Cohesive, Massive			
739					8	8						
ND		45			10	10						
Total depth = 10 ft bgs												

 ENSOLUM								Sample Name: BH04		Date: 5/14/25	
								Site Name: Marbob State #001			
								Incident Number: NAB1821141249			
								Job Number: 03A227079			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Aboubakar Kone		Method: Backhoe	
Coordinates: 32.6518211, -104.1077576								Hole Diameter: 2 ft		Total Depth: 15 ft	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG® for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	1,148	50	N	BH	0	0	CCHE	Caliche pad Material, Tan, Well graded, No Stain			
	1				1	SP-SM	Dark brown Sand with Silt, fine Grain, Non-Cohesive, No-Stain, trace of Gypsum, Poorly Graded, Massive				
M	537				2						2
280	3				3	SW-SM	Brown Sand with Silt, fine Grain, Non-Cohesive, No-Stain, trace of Gypsum, Well Graded, Massive				
173	4	4									
Total Depth = 4 ft bgs											

 ENSOLUM		Sample Name: BH05		Date: 5/14/25				
		Site Name: Marbob State #001						
		Incident Number: NAB1821141249						
		Job Number: 03A227079						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.6518211, -104.1077576			Logged By: Aboubakar Kone		Method: Backhoe			
			Hole Diameter: 2 ft		Total Depth: 15 ft			
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG® for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	476	112	N	BH	0	0	CCHE	Caliche pad Material, Tan, Well graded, No Stain
					1	1		
		280			40	2	2	SP-SM
M	420		3	3				
Total Depth = 3 ft bgs								

							Sample Name: BH06		Date: 5/16/25	
							Site Name: Marbob State #001 SWD			
							Incident Number: nAB1821141249			
							Job Number: 03A227079			
LITHOLOGIC / SOIL SAMPLING LOG							Logged By: Aboubakar Kone		Method: Backhoe	
Coordinates: 32.65194, -104.10786							Hole Diameter: 2'		Total Depth: 11'	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG® for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.										
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions		
D			N	BH06	0	0	CCHE	Caliche pad Material, Tan, Well graded, No Stain, Trace of Gypsum		
D	1,338		N	BH06	1	1	SW-SM	Well Graded Light Brown Sand, Fine to Medium Grain, Non Cohesive, Massive, Non Stain		
D	1,148		N	BH06	2	2				
M	1,148		N	BH06	3	3	SW	Well Graded Light Brown Sand, Fine to Coarse Grain, Non Plastic, Massive, Non Stain, Trace of Gypsum		
M	1,439		N	BH06	4	4				
M	1,148		N	BH06	5	5	SW-SM	Well Graded Brown Sand, Fine Grain, Non Cohesive, Massive, Non Stain, Trace of Gypsum		
M	1,657		N	BH06	6	6				
M	1,237		N	BH06	7	7	SM	Clayey Sand, Trace of Gypsum, Non Plastic, No Stain, Massive		
M	812		N	BH06	8	8	CH	Dark Brown Fat Clay, Trace of gypsum, High Plasticity, No Stain, Massive		
M	1,058		N	BH06	9	9	SP	Poorly Graded Fine Brown Sand, Non Plastic, No Stain, Massive		
M	476	74	N	BH06	10	10				
M	207		N	BH06	11	11				
Total Depth @ 11 feet bgs.										

 ENSOLUM		Sample Name: BH08		Date: 5/14/25				
		Site Name: Marbob State #001						
		Incident Number: NAB1821141249						
		Job Number: 03A227079						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.6518211, -104.1077576				Logged By: Aboubakar Kone		Method: Backhoe		
				Hole Diameter: 2 ft		Total Depth: 15 ft		
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG® for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	968			BH	4	4	SW	Brown Sand, Well Graded, Fine to Coarse Grain trace of Gypsum, No Stain, Non Cohesive, Massive
	666		N		5	5		
	420	38			6	6		
Total Depth = 6 ft bgs								

 ENSOLUM						Sample Name: BH09		Date: 5/14/25	
						Site Name: Marbob State #001			
						Incident Number: NAB1821141249			
						Job Number: 03A227079			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: Aboubakar Kone		Method: Backhoe	
Coordinates: 32.6518211, -104.1077576						Hole Diameter: 2 ft		Total Depth: 15 ft	
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG® for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.									
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions	
	593				4	4		Brown Sand, Poorly Graded, Fine Grain, No Stain, Non Cohesive, Massive	
M	296	36	N	BH	5	5	SP		
	156				6	6			
Total Depth = 6 ft bgs									

 ENSOLUM		Sample Name: BH10 ABC		Date: 5/14/25				
		Site Name: Marbob State #001						
		Incident Number: NAB1821141249						
		Job Number: 03A227079						
LITHOLOGIC / SOIL SAMPLING LOG								
Coordinates: 32.6518211, -104.1077576			Logged By: Aboubakar Kone		Method: Backhoe			
			Hole Diameter: 2 ft		Total Depth: 15 ft			
Comments: Field screening conducted with HACH Chloride Test Strips and PetroFLAG® for chloride and TPH, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.								
Moisture Content	Chloride (ppm)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
	ND				4	4		Dark Brown Sand, Well Graded, Fine to Coarse Grain, No Stain, trace of Gypsum, Non Cohesive, Massive
M	ND		N	BH	5	5	SW	
	ND				6	6		
Total Depth = 6 ft bgs								



APPENDIX F

Photographic Log



Photographic Log

Matador Production Company

Marbob State #001

Incident Number NAB1821141249



Photograph 1 Date: 04/29/2025
Description: Delineation Soil Sampling Activities
View: North



Photograph 2 Date: 04/29/2025
Description: Delineation Soil Sampling Activities
View: North



Photograph 3 Date: 04/29/2025
Description: Delineation Soil Sampling Activities
View: South



Photograph 4 Date: 04/29/2025
Description: Delineation Soil Sampling Activities
View: South

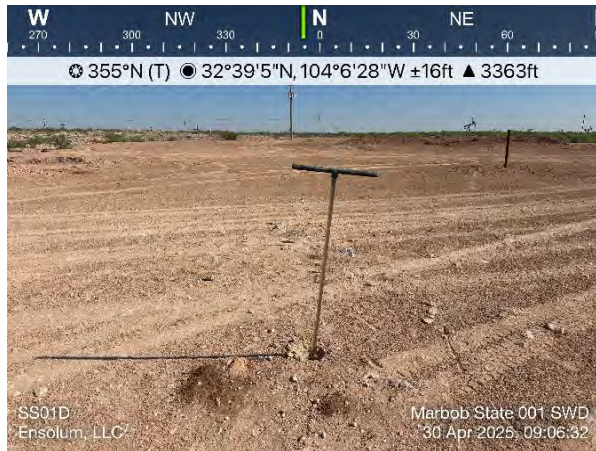


Photographic Log

Matador Production Company

Marbob State #001

Incident Number NAB1821141249



Photograph 5 Date: 04/30/2025
Description: Delineation Soil Sampling Activities
View: North



Photograph 6 Date: 04/30/2025
Description: Delineation Soil Sampling Activities
View: West



Photograph 7 Date: 04/30/2025
Description: Delineation Soil Sampling Activities
View: North



Photograph 8 Date: 04/30/2025
Description: Delineation Soil Sampling Activities
View: West



Photographic Log

Matador Production Company

Marbob State #001

Incident Number NAB1821141249



Photograph 9 Date: 05/01/2025
Description: Delineation Soil Sampling Activities
View: North



Photograph 10 Date: 05/14/2025
Description: Delineation Soil Sampling Activities
View: West



Photograph 11 Date: 05/14/2025
Description: Delineation Soil Sampling Activities
View: West



Photograph 12 Date: 05/15/2025
Description: Delineation Soil Sampling Activities
View: Northeast



Photographic Log

Matador Production Company

Marbob State #001

Incident Number NAB1821141249



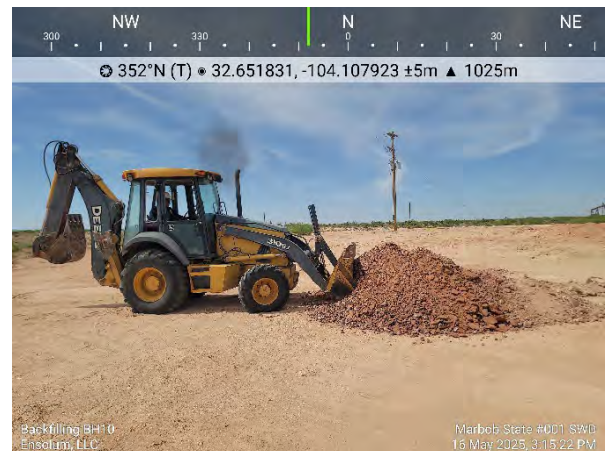
Photograph 13 Date: 05/15/2025
Description: Delineation Soil Sampling Activities
View: Southwest



Photograph 14 Date: 05/16/2025
Description: Delineation Soil Sampling Activities
View: Northeast



Photograph 15 Date: 05/16/2025
Description: Delineation Soil Sampling Activities
View: Northeast



Photograph 16 Date: 05/16/2025
Description: Delineation Soil Sampling Activities
View: North



Photographic Log

Matador Production Company

Marbob State #001

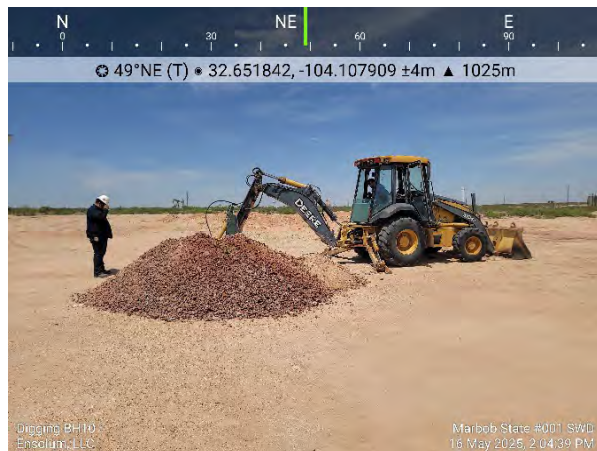
Incident Number NAB1821141249



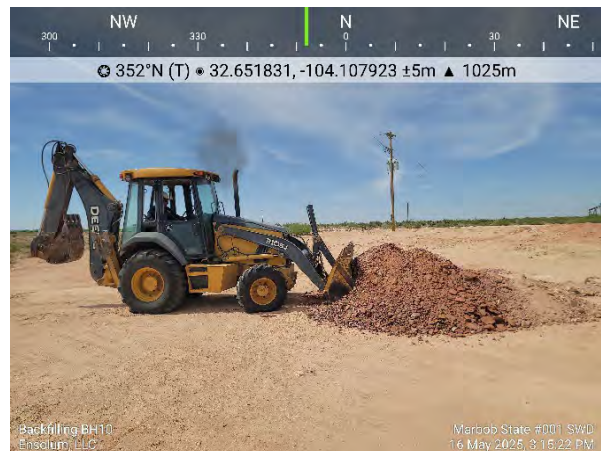
Photograph 17 Date: 05/16/2025
 Description: Delineation Soil Sampling Activities
 View: North



Photograph 18 Date: 05/16/2025
 Description: Delineation Soil Sampling Activities
 View: Southwest



Photograph 19 Date: 05/16/2025
 Description: Delineation Soil Sampling Activities
 View: Northeast



Photograph 20 Date: 05/16/2025
 Description: Delineation Soil Sampling Activities
 View: North

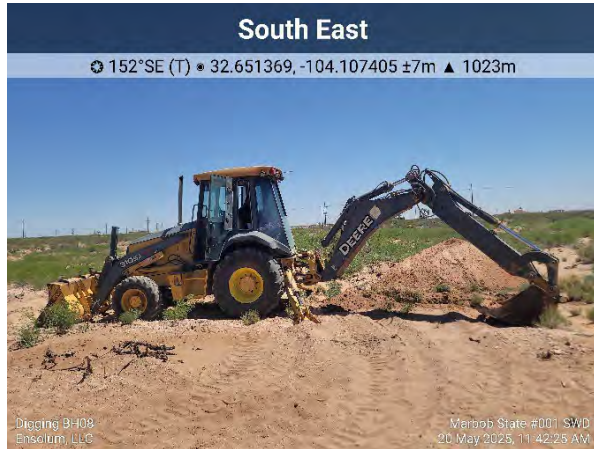


Photographic Log

Matador Production Company

Marbob State #001

Incident Number NAB1821141249



Photograph 21 Date: 05/20/2025
Description: Delineation Soil Sampling Activities
View: Southeast



Photograph 22 Date: 05/20/2025
Description: Delineation Soil Sampling Activities
View: Southwest



Photograph 23 Date: 05/20/2025
Description: Delineation Soil Sampling Activities
View: East



Photograph 24 Date: 04/29/2025
Description: Delineation Soil Sampling Activities
View: East



Photographic Log

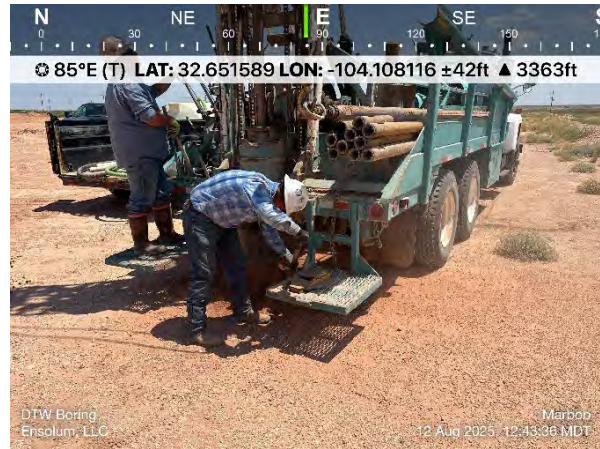
Matador Production Company

Marbob State #001

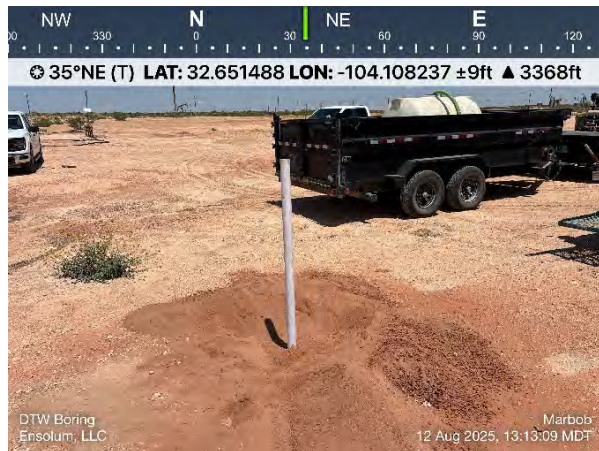
Incident Number NAB1821141249



Photograph 25 Date: 08/12/2025
Description: Depth to Water Boring
View: Southwest



Photograph 26 Date: 08/12/2025
Description: Depth to Water Boring
View: East



Photograph 27 Date: 08/12/2025
Description: Depth to Water Boring
View: Northeast



Photograph 28 Date: 05/15/2025
Description: Depth to Water Measurement
View: East



Photographic Log

Matador Production Company

Marbob State #001

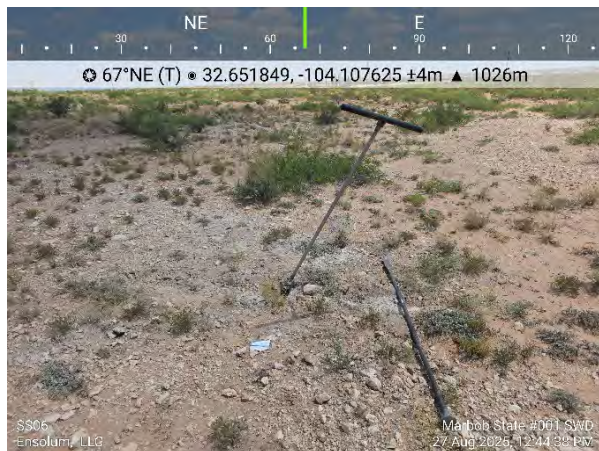
Incident Number NAB1821141249



Photograph 29 Date: 08/27/2025
Description: Delineation Soil Sampling
View: North



Photograph 30 Date: 08/27/2025
Description: Delineation Soil Sampling
View: North



Photograph 31 Date: 08/27/2025
Description: Delineation Soil Sampling
View: Northeast



Photograph 32 Date: 08/27/2025
Description: Delineation Soil Sampling
View: Northeast



Photographic Log

Matador Production Company

Marbob State #001

Incident Number NAB1821141249

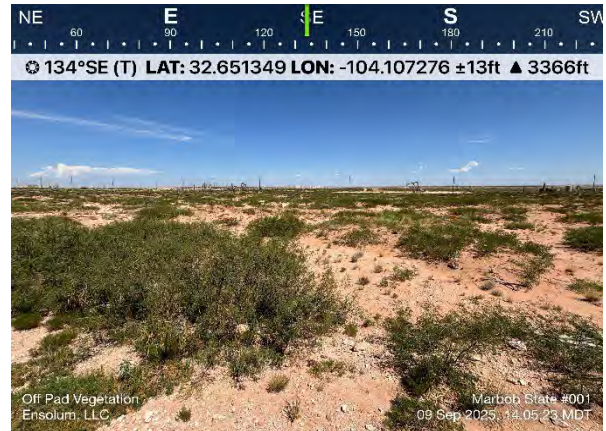


Photograph 33

Date: 09/09/2025

Description: Off-Pad Vegetation

View: South



Photograph 34

Date: 09/09/2025

Description: Off-Pad Vegetation

View: Southeast



Photograph 35

Date: 09/09/2025

Description: Off-Pad Vegetation

View: Northwest



Photograph 36

Date: 09/09/2025

Description: Off-Pad Vegetation

View: Northeast

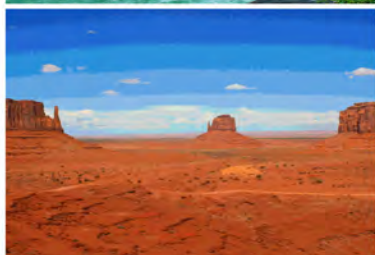


APPENDIX G

Laboratory Analytical Reports & Chain-of-Custody Documentation

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505009

Job Number: 23003-0002

Received: 5/2/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/7/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/7/25

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Marbob State 001 SWD
Workorder: E505009
Date Received: 5/2/2025 7:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/2/2025 7:00:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
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Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
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Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/07/25 10:40
---	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS05-0'	E505009-01A	Soil	04/30/25	05/02/25	Glass Jar, 2 oz.
SS05-1'	E505009-02A	Soil	04/30/25	05/02/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/7/2025 10:40:04AM

SS05-0'

E505009-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2518103	
Benzene	ND	0.0250	1	05/02/25	05/02/25	
Ethylbenzene	ND	0.0250	1	05/02/25	05/02/25	
Toluene	ND	0.0250	1	05/02/25	05/02/25	
o-Xylene	ND	0.0250	1	05/02/25	05/02/25	
p,m-Xylene	ND	0.0500	1	05/02/25	05/02/25	
Total Xylenes	ND	0.0250	1	05/02/25	05/02/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	84.3 %	70-130		05/02/25	05/02/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2518103	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/02/25	05/02/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	94.6 %	70-130		05/02/25	05/02/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2518101	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/02/25	05/02/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/02/25	05/02/25	
<i>Surrogate: n-Nonane</i>	94.6 %	61-141		05/02/25	05/02/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2518107	
Chloride	51.1	20.0	1	05/02/25	05/02/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/7/2025 10:40:04AM

SS05-1'

E505009-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2518103
Benzene	ND	0.0250	1	05/02/25	05/02/25	
Ethylbenzene	ND	0.0250	1	05/02/25	05/02/25	
Toluene	ND	0.0250	1	05/02/25	05/02/25	
o-Xylene	ND	0.0250	1	05/02/25	05/02/25	
p,m-Xylene	ND	0.0500	1	05/02/25	05/02/25	
Total Xylenes	ND	0.0250	1	05/02/25	05/02/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	83.5 %	70-130		05/02/25	05/02/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2518103
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/02/25	05/02/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.7 %	70-130		05/02/25	05/02/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KH		Batch: 2518101
Diesel Range Organics (C10-C28)	ND	25.0	1	05/02/25	05/02/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/02/25	05/02/25	
<i>Surrogate: n-Nonane</i>						
	94.2 %	61-141		05/02/25	05/02/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2518107
Chloride	ND	20.0	1	05/02/25	05/02/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/7/2025 10:40:04AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2518103-BLK1) Prepared: 05/02/25 Analyzed: 05/02/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.73		8.00		84.1	70-130			

LCS (2518103-BS1) Prepared: 05/02/25 Analyzed: 05/02/25

Benzene	4.79	0.0250	5.00		95.8	70-130			
Ethylbenzene	5.39	0.0250	5.00		108	70-130			
Toluene	5.22	0.0250	5.00		104	70-130			
o-Xylene	5.37	0.0250	5.00		107	70-130			
p,m-Xylene	10.9	0.0500	10.0		109	70-130			
Total Xylenes	16.3	0.0250	15.0		108	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.84		8.00		85.4	70-130			

Matrix Spike (2518103-MS1) Source: E505007-02 Prepared: 05/02/25 Analyzed: 05/02/25

Benzene	4.64	0.0250	5.00	ND	92.8	70-130			
Ethylbenzene	5.18	0.0250	5.00	ND	104	70-130			
Toluene	5.02	0.0250	5.00	ND	100	70-130			
o-Xylene	5.16	0.0250	5.00	ND	103	70-130			
p,m-Xylene	10.5	0.0500	10.0	ND	105	70-130			
Total Xylenes	15.7	0.0250	15.0	ND	104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.88		8.00		86.1	70-130			

Matrix Spike Dup (2518103-MSD1) Source: E505007-02 Prepared: 05/02/25 Analyzed: 05/02/25

Benzene	4.65	0.0250	5.00	ND	92.9	70-130	0.170	27	
Ethylbenzene	5.19	0.0250	5.00	ND	104	70-130	0.0858	26	
Toluene	5.02	0.0250	5.00	ND	100	70-130	0.124	20	
o-Xylene	5.17	0.0250	5.00	ND	103	70-130	0.250	25	
p,m-Xylene	10.5	0.0500	10.0	ND	105	70-130	0.252	23	
Total Xylenes	15.7	0.0250	15.0	ND	104	70-130	0.00	26	
Surrogate: 4-Bromochlorobenzene-PID	6.72		8.00		84.0	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/7/2025 10:40:04AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2518103-BLK1) Prepared: 05/02/25 Analyzed: 05/02/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		8.00		94.2	70-130			

LCS (2518103-BS2) Prepared: 05/02/25 Analyzed: 05/02/25

Gasoline Range Organics (C6-C10)	44.9	20.0	50.0		89.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.59		8.00		94.9	70-130			

Matrix Spike (2518103-MS2) Source: E505007-02 Prepared: 05/02/25 Analyzed: 05/02/25

Gasoline Range Organics (C6-C10)	44.9	20.0	50.0	ND	89.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.62		8.00		95.2	70-130			

Matrix Spike Dup (2518103-MSD2) Source: E505007-02 Prepared: 05/02/25 Analyzed: 05/02/25

Gasoline Range Organics (C6-C10)	49.1	20.0	50.0	ND	98.3	70-130	9.00	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.78		8.00		97.2	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/7/2025 10:40:04AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2518101-BLK1)					Prepared: 05/02/25 Analyzed: 05/02/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	46.3		50.0		92.6	61-141			

LCS (2518101-BS1)					Prepared: 05/02/25 Analyzed: 05/02/25				
Diesel Range Organics (C10-C28)	249	25.0	250		99.6	66-144			
Surrogate: n-Nonane	47.1		50.0		94.2	61-141			

Matrix Spike (2518101-MS1)					Source: E505013-03		Prepared: 05/02/25 Analyzed: 05/02/25		
Diesel Range Organics (C10-C28)	254	25.0	250	ND	102	56-156			
Surrogate: n-Nonane	46.6		50.0		93.2	61-141			

Matrix Spike Dup (2518101-MSD1)					Source: E505013-03		Prepared: 05/02/25 Analyzed: 05/02/25		
Diesel Range Organics (C10-C28)	255	25.0	250	ND	102	56-156	0.496	20	
Surrogate: n-Nonane	45.4		50.0		90.9	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/7/2025 10:40:04AM
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Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2518107-BLK1)					Prepared: 05/02/25 Analyzed: 05/02/25				
Chloride	ND	20.0							
LCS (2518107-BS1)					Prepared: 05/02/25 Analyzed: 05/02/25				
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2518107-MS1)					Source: E505007-01		Prepared: 05/02/25 Analyzed: 05/02/25		
Chloride	309	20.0	250	74.1	94.1	80-120			
Matrix Spike Dup (2518107-MSD1)					Source: E505007-01		Prepared: 05/02/25 Analyzed: 05/02/25		
Chloride	331	20.0	250	74.1	103	80-120	6.76	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/07/25 10:40

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client Information				Invoice Information		Lab Use Only		TAT		State									
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E 505009		Job Number 23003-0002		1D	2D	3D	Std	NM	CO	UT	TX		
Project Name: Marbob State 001 SWD				Address: 3122 National Parks Hwy									x	x					
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			
Sample Information						Analysis and Method								EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	TCEQ 1005 - TX	RCRA 8 Metals	BGDOC - NM	BGDOC - TX	SDWA	CWA	RCRA	
9:21	4/30/2025	S	1	SS05 - 0'		1													
9:26	4/30/2025	S	1	SS05 - 1'		2													
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, oaderinto@ensolum.com, bmoir@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: Oluwale Aderinto																			
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Samples requiring thermal preservation must be received on ice the day they are sampled or received packed on ice at a temp above 0 but less than 6°C on subsequent days.							
Oluwale Aderinto		5/1/25		08:15		Michelle Gonzales		5-1-25		0815									
Michelle Gonzales		5-1-25		1630		Leticia J.		5-1-25		1630									
Leticia J.		5-1-25		2315		Cathy Ma		5-2-25		700									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Lab Use Only							
												Received on ice:							
												S/N							
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other																			
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																			
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

Envirotech Analytical Laboratory

Printed: 5/2/2025 8:51:27AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/02/25 07:00	Work Order ID:	E505009
Phone:	(972) 371-5200	Date Logged In:	05/01/25 15:26	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	05/08/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505010

Job Number: 23003-0002

Received: 5/2/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/7/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/7/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E505010
Date Received: 5/2/2025 7:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/2/2025 7:00:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
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Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/07/25 14:03
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS03-0'	E505010-01A	Soil	04/30/25	05/02/25	Glass Jar, 2 oz.
SS03-1'	E505010-02A	Soil	04/30/25	05/02/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/7/2025 2:03:08PM

SS03-0'

E505010-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2518103	
Benzene	ND	0.0250	1	05/02/25	05/02/25	
Ethylbenzene	ND	0.0250	1	05/02/25	05/02/25	
Toluene	ND	0.0250	1	05/02/25	05/02/25	
o-Xylene	ND	0.0250	1	05/02/25	05/02/25	
p,m-Xylene	ND	0.0500	1	05/02/25	05/02/25	
Total Xylenes	ND	0.0250	1	05/02/25	05/02/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		84.7 %	70-130	05/02/25	05/02/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2518103	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/02/25	05/02/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.5 %	70-130	05/02/25	05/02/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2519002	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>		94.7 %	61-141	05/05/25	05/05/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2518107	
Chloride	383	20.0	1	05/02/25	05/02/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/7/2025 2:03:08PM

SS03-1'

E505010-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2518103
Benzene	ND	0.0250	1	05/02/25	05/02/25	
Ethylbenzene	ND	0.0250	1	05/02/25	05/02/25	
Toluene	ND	0.0250	1	05/02/25	05/02/25	
o-Xylene	ND	0.0250	1	05/02/25	05/02/25	
p,m-Xylene	ND	0.0500	1	05/02/25	05/02/25	
Total Xylenes	ND	0.0250	1	05/02/25	05/02/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	84.6 %	70-130		05/02/25	05/02/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2518103
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/02/25	05/02/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.5 %	70-130		05/02/25	05/02/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2519002
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>						
	94.5 %	61-141		05/05/25	05/05/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2518107
Chloride	328	20.0	1	05/02/25	05/02/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/7/2025 2:03:08PM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2518103-BLK1)

Prepared: 05/02/25 Analyzed: 05/02/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.73		8.00		84.1	70-130			

LCS (2518103-BS1)

Prepared: 05/02/25 Analyzed: 05/02/25

Benzene	4.79	0.0250	5.00		95.8	70-130			
Ethylbenzene	5.39	0.0250	5.00		108	70-130			
Toluene	5.22	0.0250	5.00		104	70-130			
o-Xylene	5.37	0.0250	5.00		107	70-130			
p,m-Xylene	10.9	0.0500	10.0		109	70-130			
Total Xylenes	16.3	0.0250	15.0		108	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.84		8.00		85.4	70-130			

Matrix Spike (2518103-MS1)

Source: E505007-02

Prepared: 05/02/25 Analyzed: 05/02/25

Benzene	4.64	0.0250	5.00	ND	92.8	70-130			
Ethylbenzene	5.18	0.0250	5.00	ND	104	70-130			
Toluene	5.02	0.0250	5.00	ND	100	70-130			
o-Xylene	5.16	0.0250	5.00	ND	103	70-130			
p,m-Xylene	10.5	0.0500	10.0	ND	105	70-130			
Total Xylenes	15.7	0.0250	15.0	ND	104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.88		8.00		86.1	70-130			

Matrix Spike Dup (2518103-MSD1)

Source: E505007-02

Prepared: 05/02/25 Analyzed: 05/02/25

Benzene	4.65	0.0250	5.00	ND	92.9	70-130	0.170	27	
Ethylbenzene	5.19	0.0250	5.00	ND	104	70-130	0.0858	26	
Toluene	5.02	0.0250	5.00	ND	100	70-130	0.124	20	
o-Xylene	5.17	0.0250	5.00	ND	103	70-130	0.250	25	
p,m-Xylene	10.5	0.0500	10.0	ND	105	70-130	0.252	23	
Total Xylenes	15.7	0.0250	15.0	ND	104	70-130	0.00	26	
Surrogate: 4-Bromochlorobenzene-PID	6.72		8.00		84.0	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/7/2025 2:03:08PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2518103-BLK1) Prepared: 05/02/25 Analyzed: 05/02/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		8.00		94.2	70-130			

LCS (2518103-BS2) Prepared: 05/02/25 Analyzed: 05/02/25

Gasoline Range Organics (C6-C10)	44.9	20.0	50.0		89.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.59		8.00		94.9	70-130			

Matrix Spike (2518103-MS2) Source: E505007-02 Prepared: 05/02/25 Analyzed: 05/02/25

Gasoline Range Organics (C6-C10)	44.9	20.0	50.0	ND	89.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.62		8.00		95.2	70-130			

Matrix Spike Dup (2518103-MSD2) Source: E505007-02 Prepared: 05/02/25 Analyzed: 05/02/25

Gasoline Range Organics (C6-C10)	49.1	20.0	50.0	ND	98.3	70-130	9.00	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.78		8.00		97.2	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/7/2025 2:03:08PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519002-BLK1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.6		50.0		97.2	61-141			

LCS (2519002-BS1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Diesel Range Organics (C10-C28)	255	25.0	250		102	66-144			
Surrogate: n-Nonane	48.6		50.0		97.1	61-141			

Matrix Spike (2519002-MS1)					Source: E505020-05		Prepared: 05/05/25 Analyzed: 05/05/25		
Diesel Range Organics (C10-C28)	347	25.0	250	39.7	123	56-156			
Surrogate: n-Nonane	56.4		50.0		113	61-141			

Matrix Spike Dup (2519002-MSD1)					Source: E505020-05		Prepared: 05/05/25 Analyzed: 05/05/25		
Diesel Range Organics (C10-C28)	340	25.0	250	39.7	120	56-156	1.99	20	
Surrogate: n-Nonane	54.4		50.0		109	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/7/2025 2:03:08PM
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Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2518107-BLK1)					Prepared: 05/02/25 Analyzed: 05/02/25				
Chloride	ND	20.0							
LCS (2518107-BS1)					Prepared: 05/02/25 Analyzed: 05/02/25				
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2518107-MS1)					Source: E505007-01		Prepared: 05/02/25 Analyzed: 05/02/25		
Chloride	309	20.0	250	74.1	94.1	80-120			
Matrix Spike Dup (2518107-MSD1)					Source: E505007-01		Prepared: 05/02/25 Analyzed: 05/02/25		
Chloride	331	20.0	250	74.1	103	80-120	6.76	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/07/25 14:03

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client Information				Invoice Information		Lab Use Only		TAT		State									
Client: Matador Production Company				Company: Ensolum LLC		Lab WO#		1D 2D 3D Std		NM CO UT TX									
Project Name: Marbob State 001 SWD				Address: 3122 National Parks Hwy		E505010		23003.0002		x									
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			
Sample Information						Analysis and Method								EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DSO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	TCEQ 1005 - TX	RCRA 8 Metals	BGDOC - NM	BGDOC - TX	SDWA	CWA	RCRA	
11:19	4/30/2025	S	1	SS03 - 0'		1													
11:23	4/30/2025	S	1	SS03 - 1'		2													
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, oaderinto@ensolum.com, bmoir@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: Oluwale Aderinto																			
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Samples requiring thermal preservation must be received on ice the day they are sampled or received packed on ice at a temp above 0 but less than 6°C on subsequent days. Lab Use Only Received on ice: ☒ Y ☐ N							
Oluwale Aderinto		05/01/25		08:15		Michelle Gonzales		5-1-25		0815									
Michelle Gonzales		5-1-25		1630		Linda M.		5-1-25		1630									
Linda M.		5-1-25		2315		Cathy Man		5-2-25		700									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																			
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

Envirotech Analytical Laboratory

Printed: 5/2/2025 8:53:18AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/02/25 07:00	Work Order ID:	E505010
Phone:	(972) 371-5200	Date Logged In:	05/01/25 15:28	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	05/08/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505021

Job Number: 23003-0002

Received: 5/5/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/8/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/8/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E505021
Date Received: 5/5/2025 7:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/5/2025 7:45:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
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Client Representative
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mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/08/25 08:38
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-0'	E505021-01A	Soil	05/01/25	05/05/25	Glass Jar, 2 oz.
BH01-1'	E505021-02A	Soil	05/01/25	05/05/25	Glass Jar, 2 oz.
BH01-1.5'	E505021-03A	Soil	05/01/25	05/05/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/8/2025 8:38:59AM

BH01-0'

E505021-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2519008	
Benzene	ND	0.0250	1	05/05/25	05/05/25	
Ethylbenzene	ND	0.0250	1	05/05/25	05/05/25	
Toluene	ND	0.0250	1	05/05/25	05/05/25	
o-Xylene	ND	0.0250	1	05/05/25	05/05/25	
p,m-Xylene	ND	0.0500	1	05/05/25	05/05/25	
Total Xylenes	ND	0.0250	1	05/05/25	05/05/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	88.4 %	70-130		05/05/25	05/05/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2519008	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/05/25	05/05/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	93.4 %	70-130		05/05/25	05/05/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2519004	
Diesel Range Organics (C10-C28)	119	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	72.7	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>	93.4 %	61-141		05/05/25	05/05/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2519014	
Chloride	18300	200	10	05/05/25	05/05/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/8/2025 8:38:59AM

BH01-1'

E505021-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2519008	
Benzene	ND	0.0250	1	05/05/25	05/05/25	
Ethylbenzene	ND	0.0250	1	05/05/25	05/05/25	
Toluene	ND	0.0250	1	05/05/25	05/05/25	
o-Xylene	ND	0.0250	1	05/05/25	05/05/25	
p,m-Xylene	ND	0.0500	1	05/05/25	05/05/25	
Total Xylenes	ND	0.0250	1	05/05/25	05/05/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	89.7 %	70-130		05/05/25	05/05/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2519008	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/05/25	05/05/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	94.9 %	70-130		05/05/25	05/05/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2519004	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>	97.9 %	61-141		05/05/25	05/05/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2519014	
Chloride	3500	100	5	05/05/25	05/05/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/8/2025 8:38:59AM

BH01-1.5'**E505021-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2519008
Benzene	ND	0.0250	1	05/05/25	05/05/25	
Ethylbenzene	ND	0.0250	1	05/05/25	05/05/25	
Toluene	ND	0.0250	1	05/05/25	05/05/25	
o-Xylene	ND	0.0250	1	05/05/25	05/05/25	
p,m-Xylene	ND	0.0500	1	05/05/25	05/05/25	
Total Xylenes	ND	0.0250	1	05/05/25	05/05/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.1 %	70-130		05/05/25	05/05/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2519008
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/05/25	05/05/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.7 %	70-130		05/05/25	05/05/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2519004
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>						
	97.5 %	61-141		05/05/25	05/05/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2519014
Chloride	2540	40.0	2	05/05/25	05/05/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:38:59AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519008-BLK1)

Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.90		8.00		86.3	70-130			

LCS (2519008-BS1)

Prepared: 05/05/25 Analyzed: 05/05/25

Benzene	5.19	0.0250	5.00		104	70-130			
Ethylbenzene	5.15	0.0250	5.00		103	70-130			
Toluene	5.19	0.0250	5.00		104	70-130			
o-Xylene	5.11	0.0250	5.00		102	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.5	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.21		8.00		90.1	70-130			

Matrix Spike (2519008-MS1)

Source: E505019-04

Prepared: 05/05/25 Analyzed: 05/05/25

Benzene	5.36	0.0250	5.00	ND	107	70-130			
Ethylbenzene	5.32	0.0250	5.00	ND	106	70-130			
Toluene	5.35	0.0250	5.00	ND	107	70-130			
o-Xylene	5.25	0.0250	5.00	ND	105	70-130			
p,m-Xylene	10.8	0.0500	10.0	ND	108	70-130			
Total Xylenes	16.0	0.0250	15.0	ND	107	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.94		8.00		86.7	70-130			

Matrix Spike Dup (2519008-MSD1)

Source: E505019-04

Prepared: 05/05/25 Analyzed: 05/05/25

Benzene	5.28	0.0250	5.00	ND	106	70-130	1.55	27	
Ethylbenzene	5.23	0.0250	5.00	ND	105	70-130	1.79	26	
Toluene	5.26	0.0250	5.00	ND	105	70-130	1.66	20	
o-Xylene	5.17	0.0250	5.00	ND	103	70-130	1.72	25	
p,m-Xylene	10.6	0.0500	10.0	ND	106	70-130	1.72	23	
Total Xylenes	15.7	0.0250	15.0	ND	105	70-130	1.72	26	
Surrogate: 4-Bromochlorobenzene-PID	6.75		8.00		84.4	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:38:59AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519008-BLK1) Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.43		8.00		92.8	70-130			

LCS (2519008-BS2) Prepared: 05/05/25 Analyzed: 05/05/25

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0		89.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		8.00		96.8	70-130			

Matrix Spike (2519008-MS2) Source: E505019-04 Prepared: 05/05/25 Analyzed: 05/05/25

Gasoline Range Organics (C6-C10)	44.1	20.0	50.0	ND	88.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.79		8.00		97.3	70-130			

Matrix Spike Dup (2519008-MSD2) Source: E505019-04 Prepared: 05/05/25 Analyzed: 05/05/25

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0	ND	89.2	70-130	1.14	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.89		8.00		98.6	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:38:59AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519004-BLK1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.1		50.0		94.1	61-141			

LCS (2519004-BS1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Diesel Range Organics (C10-C28)	251	25.0	250		100	66-144			
Surrogate: n-Nonane	46.4		50.0		92.9	61-141			

Matrix Spike (2519004-MS1)					Source: E505022-02		Prepared: 05/05/25 Analyzed: 05/05/25		
Diesel Range Organics (C10-C28)	262	25.0	250	ND	105	56-156			
Surrogate: n-Nonane	48.0		50.0		95.9	61-141			

Matrix Spike Dup (2519004-MSD1)					Source: E505022-02		Prepared: 05/05/25 Analyzed: 05/05/25		
Diesel Range Organics (C10-C28)	263	25.0	250	ND	105	56-156	0.409	20	
Surrogate: n-Nonane	48.6		50.0		97.1	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/8/2025 8:38:59AM
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Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519014-BLK1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Chloride	ND	20.0							
LCS (2519014-BS1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2519014-MS1)					Source: E505017-01		Prepared: 05/05/25 Analyzed: 05/05/25		
Chloride	301	20.0	250	40.5	104	80-120			
Matrix Spike Dup (2519014-MSD1)					Source: E505017-01		Prepared: 05/05/25 Analyzed: 05/05/25		
Chloride	298	20.0	250	40.5	103	80-120	1.21	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/08/25 08:38

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Envirotech Analytical Laboratory

Printed: 5/5/2025 9:20:58AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/05/25 07:45	Work Order ID:	E505021
Phone:	(972) 371-5200	Date Logged In:	05/02/25 15:28	Logged In By:	Noe Soto
Email:	agiovengo@ensolum.com	Due Date:	05/09/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field,
i.e., 15 minute hold time, are not included in this discussion.

Comments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within
15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505022

Job Number: 23003-0002

Received: 5/5/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/8/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/8/25

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Marbob State 001 SWD
Workorder: E505022
Date Received: 5/5/2025 7:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/5/2025 7:45:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
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mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/08/25 08:42
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01-0'	E505022-01A	Soil	05/01/25	05/05/25	Glass Jar, 2 oz.
SS01-1'	E505022-02A	Soil	05/01/25	05/05/25	Glass Jar, 2 oz.
SS02-0'	E505022-03A	Soil	05/01/25	05/05/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/8/2025 8:42:43AM

SS01-0'

E505022-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2519012	
Benzene	ND	0.0250	1	05/05/25	05/06/25	
Ethylbenzene	ND	0.0250	1	05/05/25	05/06/25	
Toluene	ND	0.0250	1	05/05/25	05/06/25	
o-Xylene	ND	0.0250	1	05/05/25	05/06/25	
p,m-Xylene	ND	0.0500	1	05/05/25	05/06/25	
Total Xylenes	ND	0.0250	1	05/05/25	05/06/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2519012	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/05/25	05/06/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.7 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2519004	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>		95.5 %	61-141	05/05/25	05/05/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2519007	
Chloride	131	20.0	1	05/05/25	05/05/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/8/2025 8:42:43AM
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SS01-1'

E505022-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2519012	
Benzene	ND	0.0250	1	05/05/25	05/06/25	
Ethylbenzene	ND	0.0250	1	05/05/25	05/06/25	
Toluene	ND	0.0250	1	05/05/25	05/06/25	
o-Xylene	ND	0.0250	1	05/05/25	05/06/25	
p,m-Xylene	ND	0.0500	1	05/05/25	05/06/25	
Total Xylenes	ND	0.0250	1	05/05/25	05/06/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2519012	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/05/25	05/06/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.4 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2519004	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>		95.0 %	61-141	05/05/25	05/05/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2519007	
Chloride	26.8	20.0	1	05/05/25	05/05/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/8/2025 8:42:43AM

SS02-0'

E505022-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2519012
Benzene	ND	0.0250	1	05/05/25	05/06/25	
Ethylbenzene	ND	0.0250	1	05/05/25	05/06/25	
Toluene	ND	0.0250	1	05/05/25	05/06/25	
o-Xylene	ND	0.0250	1	05/05/25	05/06/25	
p,m-Xylene	ND	0.0500	1	05/05/25	05/06/25	
Total Xylenes	ND	0.0250	1	05/05/25	05/06/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2519012
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/05/25	05/06/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		97.9 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2519004
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>						
		93.7 %	61-141	05/05/25	05/05/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2519007
Chloride	45.4	20.0	1	05/05/25	05/05/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:42:43AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519012-BLK1)

Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.21		8.00		103	70-130			

LCS (2519012-BS1)

Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	4.34	0.0250	5.00		86.9	70-130			
Ethylbenzene	4.26	0.0250	5.00		85.2	70-130			
Toluene	4.33	0.0250	5.00		86.6	70-130			
o-Xylene	4.30	0.0250	5.00		86.0	70-130			
p,m-Xylene	8.52	0.0500	10.0		85.2	70-130			
Total Xylenes	12.8	0.0250	15.0		85.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.14		8.00		102	70-130			

Matrix Spike (2519012-MS1)

Source: E505023-02

Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	3.84	0.0250	5.00	ND	76.8	70-130			
Ethylbenzene	3.83	0.0250	5.00	ND	76.7	70-130			
Toluene	3.87	0.0250	5.00	ND	77.3	70-130			
o-Xylene	3.88	0.0250	5.00	ND	77.6	70-130			
p,m-Xylene	7.71	0.0500	10.0	ND	77.1	70-130			
Total Xylenes	11.6	0.0250	15.0	ND	77.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.87		8.00		98.3	70-130			

Matrix Spike Dup (2519012-MSD1)

Source: E505023-02

Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	4.20	0.0250	5.00	ND	83.9	70-130	8.92	27	
Ethylbenzene	4.17	0.0250	5.00	ND	83.4	70-130	8.36	26	
Toluene	4.21	0.0250	5.00	ND	84.1	70-130	8.45	20	
o-Xylene	4.19	0.0250	5.00	ND	83.8	70-130	7.63	25	
p,m-Xylene	8.36	0.0500	10.0	ND	83.6	70-130	8.14	23	
Total Xylenes	12.6	0.0250	15.0	ND	83.7	70-130	7.97	26	
Surrogate: 4-Bromochlorobenzene-PID	8.14		8.00		102	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:42:43AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519012-BLK1) Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.70		8.00		96.2	70-130			

LCS (2519012-BS2) Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	48.7	20.0	50.0		97.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		8.00		96.8	70-130			

Matrix Spike (2519012-MS2) Source: E505023-02 Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	49.0	20.0	50.0	ND	98.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.11		8.00		101	70-130			

Matrix Spike Dup (2519012-MSD2) Source: E505023-02 Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	49.5	20.0	50.0	ND	98.9	70-130	0.891	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.94		8.00		99.3	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:42:43AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519004-BLK1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.1		50.0		94.1	61-141			

LCS (2519004-BS1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Diesel Range Organics (C10-C28)	251	25.0	250		100	66-144			
Surrogate: n-Nonane	46.4		50.0		92.9	61-141			

Matrix Spike (2519004-MS1)					Source: E505022-02		Prepared: 05/05/25 Analyzed: 05/05/25		
Diesel Range Organics (C10-C28)	262	25.0	250	ND	105	56-156			
Surrogate: n-Nonane	48.0		50.0		95.9	61-141			

Matrix Spike Dup (2519004-MSD1)					Source: E505022-02		Prepared: 05/05/25 Analyzed: 05/05/25		
Diesel Range Organics (C10-C28)	263	25.0	250	ND	105	56-156	0.409	20	
Surrogate: n-Nonane	48.6		50.0		97.1	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/8/2025 8:42:43AM
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Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519007-BLK1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Chloride	ND	20.0							
LCS (2519007-BS1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2519007-MS1)					Source: E505019-04		Prepared: 05/05/25 Analyzed: 05/05/25		
Chloride	580	20.0	250	327	101	80-120			
Matrix Spike Dup (2519007-MSD1)					Source: E505019-04		Prepared: 05/05/25 Analyzed: 05/05/25		
Chloride	579	20.0	250	327	101	80-120	0.123	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/08/25 08:42

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client Information				Invoice Information		Lab Use Only		TAT		State									
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E-305022		Job Number 23013-0062		1D	2D	3D	Std	NM	CO	UT	TX		
Project Name: Marbob State 001 SWD				Address: 3122 National Parks Hwy									x	x					
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			
Sample Information						Analysis and Method								EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	TCEQ 1005 - TX	RCRA 8 Metals	BGDOC - NM	BGDOC - TX	SDWA	CWA	RCRA	
9:51	5/1/2025	S	1	SS01 - 0'		1								x					
9:54	5/1/2025	S	1	SS01 - 1'		2								x					
9:41	5/1/2025	S	1	SS02 - 0'		3								x					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, oaderinto@ensolum.com, bmoir@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: Oluwale Aderinto																			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed on ice at a temp above 0 but less than 6°C on subsequent days.											
Oluwale Aderinto		5/2/25	08:15	Michelle Gonzales		5-2-25	0815												
Michelle Gonzales		5-2-25	1745	J. M.		3-2-25	1745												
J. M.		5-2-25	2343	Cathy Mce		5-5-25	745												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
Lab Use Only																			
Received on ice: ☒ Y / ☐ N																			
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																			
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

Envirotech Analytical Laboratory

Printed: 5/5/2025 9:22:08AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/05/25 07:45	Work Order ID:	E505022
Phone:	(972) 371-5200	Date Logged In:	05/02/25 15:34	Logged In By:	Noe Soto
Email:	agiovengo@ensolum.com	Due Date:	05/09/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client InstructionComments/Resolution

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505023

Job Number: 23003-0002

Received: 5/5/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/8/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/8/25

Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240



Project Name: Marbob State 001 SWD
Workorder: E505023
Date Received: 5/5/2025 7:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/5/2025 7:45:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
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Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/08/25 08:45
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS04-0'	E505023-01A	Soil	05/01/25	05/05/25	Glass Jar, 2 oz.
SS04-1'	E505023-02A	Soil	05/01/25	05/05/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/8/2025 8:45:24AM

SS04-0'

E505023-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2519012	
Benzene	ND	0.0250	1	05/05/25	05/06/25	
Ethylbenzene	ND	0.0250	1	05/05/25	05/06/25	
Toluene	ND	0.0250	1	05/05/25	05/06/25	
o-Xylene	ND	0.0250	1	05/05/25	05/06/25	
p,m-Xylene	ND	0.0500	1	05/05/25	05/06/25	
Total Xylenes	ND	0.0250	1	05/05/25	05/06/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2519012	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/05/25	05/06/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.1 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2519004	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/05/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/05/25	
<i>Surrogate: n-Nonane</i>		94.0 %	61-141	05/05/25	05/05/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2519014	
Chloride	98.4	20.0	1	05/05/25	05/05/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/8/2025 8:45:24AM

SS04-1'

E505023-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2519012
Benzene	ND	0.0250	1	05/05/25	05/06/25	
Ethylbenzene	ND	0.0250	1	05/05/25	05/06/25	
Toluene	ND	0.0250	1	05/05/25	05/06/25	
o-Xylene	ND	0.0250	1	05/05/25	05/06/25	
p,m-Xylene	ND	0.0500	1	05/05/25	05/06/25	
Total Xylenes	ND	0.0250	1	05/05/25	05/06/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		102 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2519012
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/05/25	05/06/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		93.4 %	70-130	05/05/25	05/06/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2519004
Diesel Range Organics (C10-C28)	ND	25.0	1	05/05/25	05/06/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/05/25	05/06/25	
<i>Surrogate: n-Nonane</i>						
		94.1 %	61-141	05/05/25	05/06/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2519014
Chloride	50.0	20.0	1	05/05/25	05/05/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:45:24AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519012-BLK1) Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.21		8.00		103	70-130			

LCS (2519012-BS1) Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	4.34	0.0250	5.00		86.9	70-130			
Ethylbenzene	4.26	0.0250	5.00		85.2	70-130			
Toluene	4.33	0.0250	5.00		86.6	70-130			
o-Xylene	4.30	0.0250	5.00		86.0	70-130			
p,m-Xylene	8.52	0.0500	10.0		85.2	70-130			
Total Xylenes	12.8	0.0250	15.0		85.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.14		8.00		102	70-130			

Matrix Spike (2519012-MS1) Source: E505023-02 Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	3.84	0.0250	5.00	ND	76.8	70-130			
Ethylbenzene	3.83	0.0250	5.00	ND	76.7	70-130			
Toluene	3.87	0.0250	5.00	ND	77.3	70-130			
o-Xylene	3.88	0.0250	5.00	ND	77.6	70-130			
p,m-Xylene	7.71	0.0500	10.0	ND	77.1	70-130			
Total Xylenes	11.6	0.0250	15.0	ND	77.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.87		8.00		98.3	70-130			

Matrix Spike Dup (2519012-MSD1) Source: E505023-02 Prepared: 05/05/25 Analyzed: 05/06/25

Benzene	4.20	0.0250	5.00	ND	83.9	70-130	8.92	27	
Ethylbenzene	4.17	0.0250	5.00	ND	83.4	70-130	8.36	26	
Toluene	4.21	0.0250	5.00	ND	84.1	70-130	8.45	20	
o-Xylene	4.19	0.0250	5.00	ND	83.8	70-130	7.63	25	
p,m-Xylene	8.36	0.0500	10.0	ND	83.6	70-130	8.14	23	
Total Xylenes	12.6	0.0250	15.0	ND	83.7	70-130	7.97	26	
Surrogate: 4-Bromochlorobenzene-PID	8.14		8.00		102	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:45:24AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519012-BLK1) Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.70		8.00		96.2	70-130			

LCS (2519012-BS2) Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	48.7	20.0	50.0		97.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		8.00		96.8	70-130			

Matrix Spike (2519012-MS2) Source: E505023-02 Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	49.0	20.0	50.0	ND	98.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.11		8.00		101	70-130			

Matrix Spike Dup (2519012-MSD2) Source: E505023-02 Prepared: 05/05/25 Analyzed: 05/06/25

Gasoline Range Organics (C6-C10)	49.5	20.0	50.0	ND	98.9	70-130	0.891	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.94		8.00		99.3	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/8/2025 8:45:24AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519004-BLK1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.1		50.0		94.1	61-141			

LCS (2519004-BS1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Diesel Range Organics (C10-C28)	251	25.0	250		100	66-144			
Surrogate: n-Nonane	46.4		50.0		92.9	61-141			

Matrix Spike (2519004-MS1)					Source: E505022-02		Prepared: 05/05/25 Analyzed: 05/05/25		
Diesel Range Organics (C10-C28)	262	25.0	250	ND	105	56-156			
Surrogate: n-Nonane	48.0		50.0		95.9	61-141			

Matrix Spike Dup (2519004-MSD1)					Source: E505022-02		Prepared: 05/05/25 Analyzed: 05/05/25		
Diesel Range Organics (C10-C28)	263	25.0	250	ND	105	56-156	0.409	20	
Surrogate: n-Nonane	48.6		50.0		97.1	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/8/2025 8:45:24AM
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Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2519014-BLK1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Chloride	ND	20.0							
LCS (2519014-BS1)					Prepared: 05/05/25 Analyzed: 05/05/25				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2519014-MS1)					Source: E505017-01		Prepared: 05/05/25 Analyzed: 05/05/25		
Chloride	301	20.0	250	40.5	104	80-120			
Matrix Spike Dup (2519014-MSD1)					Source: E505017-01		Prepared: 05/05/25 Analyzed: 05/05/25		
Chloride	298	20.0	250	40.5	103	80-120	1.21	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/08/25 08:45

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client Information				Invoice Information		Lab Use Only		TAT		State									
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E505023		Job Number 23003-0002		1D	2D	3D	Std						
Project Name: Marbob State 001 SWD				Address: 3122 National Parks Hwy									x						
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			
Sample Information						Analysis and Method								EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	TCEQ 1005 - TX	RCRA 8 Metals	BGDOC - NM	BGDOC - TX	SDWA	CWA	RCRA	
12:28	5/1/2025	S	1	SS04 - 0'		1													
12:33	5/1/2025	S	1	SS04 - 1'		2													
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, iestrella@ensolum.com, chamilton@ensolum.com, oaderinto@ensolum.com, bmoir@ensolum.com																			
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																			
Sampled by: Oluwale Aderinto																			
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Samples requiring thermal preservation must be received on ice the day they are sampled or received packed on ice at a temp above 0 but less than 6°C on subsequent days. Lab Use Only Received on ice: ☒ Y ☐ N							
Oluwale Aderinto		5/2/25		08:15		Michelle Gonzales		5.2.25		0815									
Michelle Gonzales		5.2.25		1745		J.M.		5.2.25		1745									
J.M.		5.2.25		2345		Caitlin Ma		5.5.25		745									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time									
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____																			
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																			
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

Envirotech Analytical Laboratory

Printed: 5/5/2025 9:23:19AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/05/25 07:45	Work Order ID:	E505023
Phone:	(972) 371-5200	Date Logged In:	05/02/25 15:38	Logged In By:	Noe Soto
Email:	agiovengo@ensolum.com	Due Date:	05/09/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

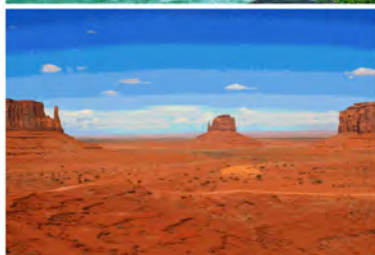
Date



envirotech Inc.

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505175

Job Number: 23003-0002

Received: 5/16/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/22/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/22/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E505175
Date Received: 5/16/2025 8:30:22AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/16/2025 8:30:22AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/22/25 07:56
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH02-2'	E505175-01A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH02-4'	E505175-02A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH02-6'	E505175-03A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH02-8'	E505175-04A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH02-10'	E505175-05A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/22/2025 7:56:40AM
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BH02-2'

E505175-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/20/25	
Toluene	ND	0.0250	1	05/16/25	05/20/25	
o-Xylene	ND	0.0250	1	05/16/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	88.7 %	70-130		05/16/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	94.2 %	70-130		05/16/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>	108 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS		Batch: 2520137	
Chloride	1460	20.0	1	05/16/25	05/17/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 7:56:40AM

BH02-4'

E505175-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	84.6 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.1 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	105 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2520137	
Chloride	1790	20.0	1	05/16/25	05/17/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 7:56:40AM

BH02-6'

E505175-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	85.6 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.5 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KH		Batch: 2520134
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	107 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2520137
Chloride	1710	20.0	1	05/16/25	05/17/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 7:56:40AM

BH02-8'

E505175-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	87.4 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.7 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	116 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2520137	
Chloride	1260	20.0	1	05/16/25	05/17/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 7:56:40AM

BH02-10'**E505175-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	88.4 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	96.7 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>	105 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS		Batch: 2520137	
Chloride	241	20.0	1	05/16/25	05/17/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/22/2025 7:56:40AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2520111-BLK1) Prepared: 05/16/25 Analyzed: 05/17/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.72		8.00		84.0	70-130			

LCS (2520111-BS1) Prepared: 05/16/25 Analyzed: 05/19/25

Benzene	5.01	0.0250	5.00		100	70-130			
Ethylbenzene	5.01	0.0250	5.00		100	70-130			
Toluene	5.02	0.0250	5.00		100	70-130			
o-Xylene	4.92	0.0250	5.00		98.3	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.0	0.0250	15.0		99.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.91		8.00		86.4	70-130			

Matrix Spike (2520111-MS1) Source: E505173-05 Prepared: 05/16/25 Analyzed: 05/17/25

Benzene	5.03	0.0250	5.00	ND	101	70-130			
Ethylbenzene	4.93	0.0250	5.00	ND	98.6	70-130			
Toluene	5.00	0.0250	5.00	ND	100	70-130			
o-Xylene	4.86	0.0250	5.00	ND	97.2	70-130			
p,m-Xylene	9.97	0.0500	10.0	ND	99.7	70-130			
Total Xylenes	14.8	0.0250	15.0	ND	98.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.75		8.00		84.4	70-130			

Matrix Spike Dup (2520111-MSD1) Source: E505173-05 Prepared: 05/16/25 Analyzed: 05/17/25

Benzene	5.42	0.0250	5.00	ND	108	70-130	7.46	27	
Ethylbenzene	5.33	0.0250	5.00	ND	107	70-130	7.83	26	
Toluene	5.39	0.0250	5.00	ND	108	70-130	7.49	20	
o-Xylene	5.23	0.0250	5.00	ND	105	70-130	7.28	25	
p,m-Xylene	10.8	0.0500	10.0	ND	108	70-130	7.53	23	
Total Xylenes	16.0	0.0250	15.0	ND	107	70-130	7.45	26	
Surrogate: 4-Bromochlorobenzene-PID	6.73		8.00		84.2	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/22/2025 7:56:40AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2520111-BLK1) Prepared: 05/16/25 Analyzed: 05/17/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.3	70-130			

LCS (2520111-BS2) Prepared: 05/16/25 Analyzed: 05/17/25

Gasoline Range Organics (C6-C10)	41.8	20.0	50.0		83.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.79		8.00		97.4	70-130			

Matrix Spike (2520111-MS2) Source: E505173-05 Prepared: 05/16/25 Analyzed: 05/17/25

Gasoline Range Organics (C6-C10)	45.9	20.0	50.0	ND	91.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.74		8.00		96.8	70-130			

Matrix Spike Dup (2520111-MSD2) Source: E505173-05 Prepared: 05/16/25 Analyzed: 05/20/25

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0	ND	89.2	70-130	2.94	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.79		8.00		97.4	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/22/2025 7:56:40AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2520134-BLK1)					Prepared: 05/16/25 Analyzed: 05/16/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.7		50.0		101	61-141			

LCS (2520134-BS1)					Prepared: 05/16/25 Analyzed: 05/16/25				
Diesel Range Organics (C10-C28)	260	25.0	250		104	66-144			
Surrogate: n-Nonane	50.2		50.0		100	61-141			

Matrix Spike (2520134-MS1)					Source: E505118-02RE1		Prepared: 05/16/25 Analyzed: 05/16/25		
Diesel Range Organics (C10-C28)	297	25.0	250	ND	119	56-156			
Surrogate: n-Nonane	54.7		50.0		109	61-141			

Matrix Spike Dup (2520134-MSD1)					Source: E505118-02RE1		Prepared: 05/16/25 Analyzed: 05/16/25		
Diesel Range Organics (C10-C28)	290	25.0	250	ND	116	56-156	2.31	20	
Surrogate: n-Nonane	51.1		50.0		102	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/22/2025 7:56:40AM
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Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2520137-BLK1)					Prepared: 05/16/25 Analyzed: 05/17/25				
Chloride	ND	20.0							
LCS (2520137-BS1)					Prepared: 05/16/25 Analyzed: 05/17/25				
Chloride	261	20.0	250		105	90-110			
Matrix Spike (2520137-MS1)					Source: E505169-06		Prepared: 05/16/25 Analyzed: 05/17/25		
Chloride	352	20.0	250	74.4	111	80-120			
Matrix Spike Dup (2520137-MSD1)					Source: E505169-06		Prepared: 05/16/25 Analyzed: 05/17/25		
Chloride	343	20.0	250	74.4	107	80-120	2.65	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/22/25 07:56

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Client Information				Invoice Information				Lab Use Only				TAT				State					
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX		
Project: Marbob State #001 SWD				Address: 3122 National Parks Hwy				E505175		23003-0002					X	X					
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																	
Address: 3122 National Parks Hwy				Phone: 575-988-0055																	
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																	
Phone: 575-988-0055				Miscellaneous:																	
Email: agiovengo@ensolum.com																					
Analysis and Method																EPA Program					
																SDWA		CWA		RCRA	
																Compliance		Y		or N	
																PWSID #					
																Remarks					
Sample Information																					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals						
14:46	5/14/2025	S	1	BH02-2'			1						x					2.0			
15:11	5/14/2025	S	1	BH02-4'			2						x					2.8			
15:20	5/14/2025	S	1	BH02-6'			3						x					1.8			
15:29	5/14/2025	S	1	BH02-8'			4						x					2.0			
16:04	5/14/2025	S	1	BH02-10'			5						x					1.8			
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensoulm.com, bsimmons@ensolum.com, igonzalez@ensolum.com, bmoir@ensolum.com, oaderinto@ensolum.com																					
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																					
Sampled by: Aboubakar Kone																					
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: (Y) / N T1 _____ T2 _____ T3 _____ AVG Temp °C _____													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time														
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time														
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time														
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____																					
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																					



envirotech

Envirotech Analytical Laboratory

Printed: 5/16/2025 1:29:11PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/16/25 08:30	Work Order ID:	E505175
Phone:	(972) 371-5200	Date Logged In:	05/15/25 14:39	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	05/22/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505176

Job Number: 23003-0002

Received: 5/16/2025

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/22/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/22/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E505176
Date Received: 5/16/2025 8:30:22AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/16/2025 8:30:22AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
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Client Representative
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mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/22/25 10:36
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01-0'	E505176-01A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH01-2'	E505176-02A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH01-4'	E505176-03A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH01-6'	E505176-04A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH01-8'	E505176-05A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH01-10'	E505176-06A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH01-12'	E505176-07A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH01-14'	E505176-08A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH01-15'	E505176-09A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.
BH02-0'	E505176-10A	Soil	05/14/25	05/16/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH01-0'

E505176-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	85.8 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	94.6 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>	111 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS		Batch: 2520138	
Chloride	21300	400	20	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH01-2'

E505176-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	86.5 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.8 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KH		Batch: 2520134
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	103 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2520138
Chloride	967	40.0	2	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH01-4'

E505176-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	87.8 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.7 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	102 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2520138	
Chloride	3530	40.0	2	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH01-6'

E505176-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	88.3 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	97.0 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KH		Batch: 2520134
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	105 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2520138
Chloride	4120	40.0	2	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH01-8'

E505176-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.2 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	95.8 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	109 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2520138	
Chloride	3750	40.0	2	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH01-10'

E505176-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	89.0 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.3 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	105 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: RAS		Batch: 2520138	
Chloride	2280	40.0	2	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/22/2025 10:36:58AM
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BH01-12'

E505176-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	89.6 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	96.0 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>	101 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS		Batch: 2520138	
Chloride	823	20.0	1	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH01-14'

E505176-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.3 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	97.1 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KH		Batch: 2520134
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	98.3 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2520138
Chloride	636	20.0	1	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH01-15'

E505176-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	ND	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	ND	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	<i>90.7 %</i>	<i>70-130</i>		<i>05/16/25</i>	<i>05/18/25</i>	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2520111	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	<i>95.5 %</i>	<i>70-130</i>		<i>05/16/25</i>	<i>05/18/25</i>	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2520134	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>	<i>104 %</i>	<i>61-141</i>		<i>05/16/25</i>	<i>05/17/25</i>	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS		Batch: 2520138	
Chloride	104	20.0	1	05/16/25	05/18/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/22/2025 10:36:58AM

BH02-0'

E505176-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Benzene	ND	0.0250	1	05/16/25	05/18/25	
Ethylbenzene	ND	0.0250	1	05/16/25	05/18/25	
Toluene	ND	0.0250	1	05/16/25	05/18/25	
o-Xylene	0.285	0.0250	1	05/16/25	05/18/25	
p,m-Xylene	ND	0.0500	1	05/16/25	05/18/25	
Total Xylenes	0.285	0.0250	1	05/16/25	05/18/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	90.0 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2520111
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/16/25	05/18/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.8 %	70-130		05/16/25	05/18/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KH		Batch: 2520134
Diesel Range Organics (C10-C28)	156	25.0	1	05/16/25	05/17/25	
Oil Range Organics (C28-C36)	257	50.0	1	05/16/25	05/17/25	
<i>Surrogate: n-Nonane</i>						
	98.9 %	61-141		05/16/25	05/17/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2520138
Chloride	1120	20.0	1	05/16/25	05/18/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/22/2025 10:36:58AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2520111-BLK1)

Prepared: 05/16/25 Analyzed: 05/17/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	6.72		8.00		84.0	70-130			

LCS (2520111-BS1)

Prepared: 05/16/25 Analyzed: 05/19/25

Benzene	5.01	0.0250	5.00		100	70-130			
Ethylbenzene	5.01	0.0250	5.00		100	70-130			
Toluene	5.02	0.0250	5.00		100	70-130			
o-Xylene	4.92	0.0250	5.00		98.3	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.0	0.0250	15.0		99.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.91		8.00		86.4	70-130			

Matrix Spike (2520111-MS1)

Source: E505173-05

Prepared: 05/16/25 Analyzed: 05/17/25

Benzene	5.03	0.0250	5.00	ND	101	70-130			
Ethylbenzene	4.93	0.0250	5.00	ND	98.6	70-130			
Toluene	5.00	0.0250	5.00	ND	100	70-130			
o-Xylene	4.86	0.0250	5.00	ND	97.2	70-130			
p,m-Xylene	9.97	0.0500	10.0	ND	99.7	70-130			
Total Xylenes	14.8	0.0250	15.0	ND	98.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	6.75		8.00		84.4	70-130			

Matrix Spike Dup (2520111-MSD1)

Source: E505173-05

Prepared: 05/16/25 Analyzed: 05/17/25

Benzene	5.42	0.0250	5.00	ND	108	70-130	7.46	27	
Ethylbenzene	5.33	0.0250	5.00	ND	107	70-130	7.83	26	
Toluene	5.39	0.0250	5.00	ND	108	70-130	7.49	20	
o-Xylene	5.23	0.0250	5.00	ND	105	70-130	7.28	25	
p,m-Xylene	10.8	0.0500	10.0	ND	108	70-130	7.53	23	
Total Xylenes	16.0	0.0250	15.0	ND	107	70-130	7.45	26	
Surrogate: 4-Bromochlorobenzene-PID	6.73		8.00		84.2	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/22/2025 10:36:58AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2520111-BLK1) Prepared: 05/16/25 Analyzed: 05/17/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		8.00		96.3	70-130			

LCS (2520111-BS2) Prepared: 05/16/25 Analyzed: 05/17/25

Gasoline Range Organics (C6-C10)	41.8	20.0	50.0		83.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.79		8.00		97.4	70-130			

Matrix Spike (2520111-MS2) Source: E505173-05 Prepared: 05/16/25 Analyzed: 05/17/25

Gasoline Range Organics (C6-C10)	45.9	20.0	50.0	ND	91.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.74		8.00		96.8	70-130			

Matrix Spike Dup (2520111-MSD2) Source: E505173-05 Prepared: 05/16/25 Analyzed: 05/20/25

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0	ND	89.2	70-130	2.94	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.79		8.00		97.4	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/22/2025 10:36:58AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2520134-BLK1)					Prepared: 05/16/25 Analyzed: 05/16/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.7		50.0		101	61-141			

LCS (2520134-BS1)					Prepared: 05/16/25 Analyzed: 05/16/25				
Diesel Range Organics (C10-C28)	260	25.0	250		104	66-144			
Surrogate: n-Nonane	50.2		50.0		100	61-141			

Matrix Spike (2520134-MS1)					Source: E505118-02RE1		Prepared: 05/16/25 Analyzed: 05/16/25		
Diesel Range Organics (C10-C28)	297	25.0	250	ND	119	56-156			
Surrogate: n-Nonane	54.7		50.0		109	61-141			

Matrix Spike Dup (2520134-MSD1)					Source: E505118-02RE1		Prepared: 05/16/25 Analyzed: 05/16/25		
Diesel Range Organics (C10-C28)	290	25.0	250	ND	116	56-156	2.31	20	
Surrogate: n-Nonane	51.1		50.0		102	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/22/2025 10:36:58AM
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Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2520138-BLK1)						Prepared: 05/16/25 Analyzed: 05/18/25			
Chloride	ND	20.0							
LCS (2520138-BS1)						Prepared: 05/16/25 Analyzed: 05/18/25			
Chloride	256	20.0	250		102	90-110			
Matrix Spike (2520138-MS1)				Source: E505176-05		Prepared: 05/16/25 Analyzed: 05/18/25			
Chloride	3850	40.0	250	3750	37.7	80-120			M4
Matrix Spike Dup (2520138-MSD1)				Source: E505176-05		Prepared: 05/16/25 Analyzed: 05/18/25			
Chloride	3800	40.0	250	3750	17.2	80-120	1.34	20	M4

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/22/25 10:36

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E505176		Job Number 23003-0002				1D 2D 3D Std X X X X					
Project: Marbob State #001 SWD				Address: 3122 National Parks Hwy								NM CO UT TX X X X X					
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220													
Address: 3122 National Parks Hwy				Phone: 575-988-0055													
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com													
Phone: 575-988-0055				Miscellaneous:													
Email: agiovengo@ensolum.com																	
Sample Information						Analysis and Method								EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
10:03	5/14/2025	S	1	BH01-0'		1						X					
10:08	5/14/2025	S	1	BH01-2'		2						X					
10:41	5/14/2025	S	1	BH01-4'		3						X					
10:46	5/14/2025	S	1	BH01-6'		4						X					
11:16	5/14/2025	S	1	BH01-8'		5						X					
11:40	5/14/2025	S	1	BH01-10'		6						X					
13:11	5/14/2025	S	1	BH01-12		7						X					
13:46	5/14/2025	S	1	BH01-14'		8						X					
14:01	5/14/2025	S	1	BH01-15'		9						X					
14:24	5/14/2025	S	1	BH02-0'		10						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bsimmons@ensolum.com, igonzalez@ensolum.com, bmoir@ensolum.com, oaderinto@ensolum.com I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: _____ Aboubakar Kone																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: ☒ Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C _____ Container type: g - glass, p - poly/plastic, ag - amber glass, v - VOA									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																	



envirotech

Envirotech Analytical Laboratory

Printed: 5/16/2025 1:31:53PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/16/25 08:30	Work Order ID:	E505176
Phone:	(972) 371-5200	Date Logged In:	05/15/25 14:42	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	05/22/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505199

Job Number: 23003-0002

Received: 5/19/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/23/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/23/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E505199
Date Received: 5/19/2025 7:30:17AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/19/2025 7:30:17AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

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Sample Summary

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
05/23/25 07:40

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH03-0'	E505199-01A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH03-2'	E505199-02A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH03-4'	E505199-03A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH03-6'	E505199-04A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH03-8'	E505199-05A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH03-10'	E505199-06A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH04-0'	E505199-07A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH04-1'	E505199-08A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH04-2'	E505199-09A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.
BH04-3'	E505199-10A	Soil	05/15/25	05/19/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/23/2025 7:40:38AM
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BH03-0'

E505199-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
Surrogate: 4-Bromochlorobenzene-PID	101 %	70-130		05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
Surrogate: 1-Chloro-4-fluorobenzene-FID	93.2 %	70-130		05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
Surrogate: n-Nonane	103 %	61-141		05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	814	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/23/2025 7:40:38AM

BH03-2'

E505199-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.4 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>		107 %	61-141	05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	1210	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/23/2025 7:40:38AM
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BH03-4'

E505199-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	99.6 %	70-130		05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	91.8 %	70-130		05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>	107 %	61-141		05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	2420	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/23/2025 7:40:38AM

BH03-6'

E505199-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	99.7 %	70-130		05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	92.3 %	70-130		05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>	108 %	61-141		05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	1650	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/23/2025 7:40:38AM
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BH03-8'

E505199-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.5 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>		108 %	61-141	05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	1320	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/23/2025 7:40:38AM

BH03-10'

E505199-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.4 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>		105 %	61-141	05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	145	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/23/2025 7:40:38AM

BH04-0'

E505199-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.7 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>		105 %	61-141	05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	1890	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/23/2025 7:40:38AM

BH04-1'

E505199-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.9 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>		106 %	61-141	05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	798	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/23/2025 7:40:38AM

BH04-2'

E505199-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.8 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>		113 %	61-141	05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	400	20.0	1	05/19/25	05/19/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/23/2025 7:40:38AM

BH04-3'

E505199-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Benzene	ND	0.0250	1	05/19/25	05/20/25	
Ethylbenzene	ND	0.0250	1	05/19/25	05/20/25	
Toluene	ND	0.0250	1	05/19/25	05/20/25	
o-Xylene	ND	0.0250	1	05/19/25	05/20/25	
p,m-Xylene	ND	0.0500	1	05/19/25	05/20/25	
Total Xylenes	ND	0.0250	1	05/19/25	05/20/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521006	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/19/25	05/20/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.3 %	70-130	05/19/25	05/20/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2521028	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/19/25	05/21/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/19/25	05/21/25	
<i>Surrogate: n-Nonane</i>		107 %	61-141	05/19/25	05/21/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2521018	
Chloride	246	20.0	1	05/19/25	05/19/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/23/2025 7:40:38AM

Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521006-BLK1) Prepared: 05/19/25 Analyzed: 05/19/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.07		8.00		101	70-130			

LCS (2521006-BS1) Prepared: 05/19/25 Analyzed: 05/19/25

Benzene	5.32	0.0250	5.00		106	70-130			
Ethylbenzene	5.44	0.0250	5.00		109	70-130			
Toluene	5.43	0.0250	5.00		109	70-130			
o-Xylene	5.36	0.0250	5.00		107	70-130			
p,m-Xylene	11.0	0.0500	10.0		110	70-130			
Total Xylenes	16.3	0.0250	15.0		109	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.01		8.00		100	70-130			

Matrix Spike (2521006-MS1) Source: E505199-07 Prepared: 05/19/25 Analyzed: 05/20/25

Benzene	5.24	0.0250	5.00	ND	105	70-130			
Ethylbenzene	5.33	0.0250	5.00	ND	107	70-130			
Toluene	5.33	0.0250	5.00	ND	107	70-130			
o-Xylene	5.25	0.0250	5.00	ND	105	70-130			
p,m-Xylene	10.7	0.0500	10.0	ND	107	70-130			
Total Xylenes	16.0	0.0250	15.0	ND	107	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.05		8.00		101	70-130			

Matrix Spike Dup (2521006-MSD1) Source: E505199-07 Prepared: 05/19/25 Analyzed: 05/20/25

Benzene	5.31	0.0250	5.00	ND	106	70-130	1.19	27	
Ethylbenzene	5.44	0.0250	5.00	ND	109	70-130	1.92	26	
Toluene	5.42	0.0250	5.00	ND	108	70-130	1.63	20	
o-Xylene	5.36	0.0250	5.00	ND	107	70-130	2.00	25	
p,m-Xylene	11.0	0.0500	10.0	ND	110	70-130	2.03	23	
Total Xylenes	16.3	0.0250	15.0	ND	109	70-130	2.02	26	
Surrogate: 4-Bromochlorobenzene-PID	8.09		8.00		101	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/23/2025 7:40:38AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2521006-BLK1) Prepared: 05/19/25 Analyzed: 05/19/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.48		8.00		93.5	70-130			

LCS (2521006-BS2) Prepared: 05/19/25 Analyzed: 05/19/25

Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.65		8.00		95.6	70-130			

Matrix Spike (2521006-MS2) Source: E505199-07 Prepared: 05/19/25 Analyzed: 05/20/25

Gasoline Range Organics (C6-C10)	40.1	20.0	50.0	ND	80.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		8.00		94.3	70-130			

Matrix Spike Dup (2521006-MSD2) Source: E505199-07 Prepared: 05/19/25 Analyzed: 05/20/25

Gasoline Range Organics (C6-C10)	45.5	20.0	50.0	ND	90.9	70-130	12.6	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.64		8.00		95.5	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/23/2025 7:40:38AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2521028-BLK1)					Prepared: 05/19/25 Analyzed: 05/20/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.6		50.0		101	61-141			

LCS (2521028-BS1)					Prepared: 05/19/25 Analyzed: 05/21/25				
Diesel Range Organics (C10-C28)	270	25.0	250		108	66-144			
Surrogate: n-Nonane	51.7		50.0		103	61-141			

Matrix Spike (2521028-MS1)					Source: E505197-04		Prepared: 05/19/25 Analyzed: 05/21/25		
Diesel Range Organics (C10-C28)	283	25.0	250	ND	113	56-156			
Surrogate: n-Nonane	52.4		50.0		105	61-141			

Matrix Spike Dup (2521028-MSD1)					Source: E505197-04		Prepared: 05/19/25 Analyzed: 05/21/25		
Diesel Range Organics (C10-C28)	306	25.0	250	ND	122	56-156	7.70	20	
Surrogate: n-Nonane	52.0		50.0		104	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/23/2025 7:40:38AM
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Anions by EPA 300.0/9056A

Analyst: JM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521018-BLK1)					Prepared: 05/19/25 Analyzed: 05/19/25				
Chloride	ND	20.0							
LCS (2521018-BS1)					Prepared: 05/19/25 Analyzed: 05/19/25				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2521018-MS1)					Source: E505199-09		Prepared: 05/19/25 Analyzed: 05/19/25		
Chloride	664	20.0	250	400	106	80-120			
Matrix Spike Dup (2521018-MSD1)					Source: E505199-09		Prepared: 05/19/25 Analyzed: 05/19/25		
Chloride	693	20.0	250	400	117	80-120	4.19	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/23/25 07:40

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State											
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E-505199		Job Number 23003-0002				<table border="1"> <tr> <td>1D</td> <td>2D</td> <td>3D</td> <td>Std</td> </tr> <tr> <td></td> <td></td> <td></td> <td>X</td> </tr> </table>				1D	2D	3D	Std				X
1D	2D	3D	Std																				
			X																				
Project: Marbob Stae #001 SWD				Address: 3122 National Parks Hwy		City, State, Zip: Carlsbad NM, 88220						<table border="1"> <tr> <td>NM</td> <td>CO</td> <td>UT</td> <td>TX</td> </tr> <tr> <td>X</td> <td></td> <td></td> <td></td> </tr> </table>				NM	CO	UT	TX	X			
NM	CO	UT	TX																				
X																							
Project Manager: Ashley Giovengo				Phone: 575-988-0055		Email: agiovengo@ensolum.com																	
Address: 3122 National Parks Hwy																							
City, State, Zip: Carlsbad NM, 88220																							
Phone: 575-988-0055																							
Email: agiovengo@ensolum.com																							
Sample Information										Analysis and Method				EPA Program									
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA						
9:30	5/15/2025	S	1	BH03-0' BH03-0'		1						X											
9:50	5/15/2025	S	1	BH03-2'		2						X											
9:56	5/15/2025	S	1	BH03-4'		3						X											
10:03	5/15/2025	S	1	BH03-6'		4						X											
10:11	5/15/2025	S	1	BH03-8'		5						X											
11:21	5/15/2025	S	1	BH03-10'		6						X											
9:29	5/15/2025	S	1	BH04-0'		7						X											
13:14	5/15/2025	S	1	BH04-1'		8						X											
13:18	5/15/2025	S	1	BH04-2'		9						X											
13:23	5/15/2025	S	1	BH04-3'		10						X											
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bsimmons@ensolum.com, igonzalez@ensolum.com, bmoir@ensolum.com, oaderinto@ensolum.com I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: _____ Aboubakar Kone																							
Relinquished by: (Signature) _____		Date	Time	Received by: (Signature) _____		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: ☒ Y ☐ N T1 _____ T2 _____ T3 _____ AVG Temp °C _____															
Relinquished by: (Signature) _____		Date	Time	Received by: (Signature) _____		Date	Time																
Relinquished by: (Signature) _____		Date	Time	Received by: (Signature) _____		Date	Time																
Relinquished by: (Signature) _____		Date	Time	Received by: (Signature) _____		Date	Time																
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____													
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																							



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Chain of Custody

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E505199		Job Number 23003002				1D 2D 3D Std X					
Project: Marbob Stae #001 SWD				Address: 3122 National Parks Hwy								NM CO UT TX X					
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220													
Address: 3122 National Parks Hwy				Phone: 575-988-0055													
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com													
Phone: 575-988-0055				Miscellaneous:													
Email: agiovengo@ensolum.com																	
Sample Information						Analysis and Method								EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
9:30	5/15/2025	S	1	BH3-0'		1						X					
9:50	5/15/2025	S	1	BH03-2'		2						X					
9:56	5/15/2025	S	1	BH03-4'		3						X					
10:03	5/15/2025	S	1	BH03-6'		4						X					
10:11	5/15/2025	S	1	BH03-8'		5						X					
11:21	5/15/2025	S	1	BH03-10'		6						X					
9:29	5/15/2025	S	1	BH04-0'		7						X					
13:14	5/15/2025	S	1	BH04-1'		8						X					
13:18	5/15/2025	S	1	BH04-2'		9						X					
13:23	5/15/2025	S	1	BH04-3'		10						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensoulm.com, bsimmons@ensolum.com, igonzalez@ensolum.com, bmoir@ensolum.com, oaderinto@ensolum.com I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																	
Sampled by: _____ Aboubakar Kone																	
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: ☒ Y ☐ N T1 _____ T2 _____ T3 _____ AVG Temp °C _____					
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____																	
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____																	
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																	



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Envirotech Analytical Laboratory

Printed: 5/19/2025 10:17:32AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/19/25 07:30	Work Order ID:	E505199
Phone:	(972) 371-5200	Date Logged In:	05/16/25 16:08	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	05/23/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? No
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/Resolution

Sample 1 container did not match coc.
Corrected sample name on COC per client.

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505219

Job Number: 23003-0002

Received: 5/20/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/27/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/27/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E505219
Date Received: 5/20/2025 7:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/20/2025 7:45:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
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Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/27/25 11:26
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH05-0'	E505219-01A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH05-1'	E505219-02A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH05-2'	E505219-03A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH06-0'	E505219-04A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH06-2'	E505219-05A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH06-4'	E505219-06A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH06-6'	E505219-07A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH06-8'	E505219-08A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH06-10'	E505219-09A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.
BH06-11'	E505219-10A	Soil	05/16/25	05/20/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/27/2025 11:26:38AM

BH05-0'

E505219-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		86.7 %	70-130	05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.4 %	70-130	05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HM		Batch: 2521103	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/23/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/23/25	
<i>Surrogate: n-Nonane</i>		105 %	61-141	05/21/25	05/23/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521071	
Chloride	333	20.0	1	05/21/25	05/22/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/27/2025 11:26:38AM
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BH05-1'

E505219-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	87.7 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	95.0 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HM		Batch: 2521103	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/23/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/23/25	
<i>Surrogate: n-Nonane</i>	106 %	61-141		05/21/25	05/23/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521071	
Chloride	393	20.0	1	05/21/25	05/22/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/27/2025 11:26:38AM

BH06-0'

E505219-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	87.5 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.1 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: HM		Batch: 2521103	
Diesel Range Organics (C10-C28)	209	25.0	1	05/21/25	05/27/25	
Oil Range Organics (C28-C36)	163	50.0	1	05/21/25	05/27/25	
<i>Surrogate: n-Nonane</i>						
	89.0 %	61-141		05/21/25	05/27/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2521071	
Chloride	16500	400	20	05/21/25	05/22/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/27/2025 11:26:38AM

BH06-2'

E505219-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	87.1 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.8 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: HM		Batch: 2521103	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/23/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/23/25	
<i>Surrogate: n-Nonane</i>						
	101 %	61-141		05/21/25	05/23/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2521071	
Chloride	1170	40.0	2	05/21/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/27/2025 11:26:38AM

BH06-4'

E505219-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	86.4 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	93.8 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HM		Batch: 2521103	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/23/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/23/25	
<i>Surrogate: n-Nonane</i>	105 %	61-141		05/21/25	05/23/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521071	
Chloride	1360	20.0	1	05/21/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/27/2025 11:26:38AM

BH06-6'

E505219-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521046
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	85.7 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521046
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.0 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2521103
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/23/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/23/25	
<i>Surrogate: n-Nonane</i>						
	105 %	61-141		05/21/25	05/23/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2521071
Chloride	1880	40.0	2	05/21/25	05/23/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/27/2025 11:26:38AM
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BH06-8'

E505219-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	89.4 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	94.2 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: HM		Batch: 2521103	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/23/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/23/25	
<i>Surrogate: n-Nonane</i>	108 %	61-141		05/21/25	05/23/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521071	
Chloride	1320	20.0	1	05/21/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/27/2025 11:26:38AM

BH06-10'

E505219-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521046
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	85.4 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521046
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.7 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2521103
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/23/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/23/25	
<i>Surrogate: n-Nonane</i>						
	104 %	61-141		05/21/25	05/23/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2521071
Chloride	732	20.0	1	05/21/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/27/2025 11:26:38AM

BH06-11'

E505219-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521046
Benzene	ND	0.0250	1	05/20/25	05/22/25	
Ethylbenzene	ND	0.0250	1	05/20/25	05/22/25	
Toluene	ND	0.0250	1	05/20/25	05/22/25	
o-Xylene	ND	0.0250	1	05/20/25	05/22/25	
p,m-Xylene	ND	0.0500	1	05/20/25	05/22/25	
Total Xylenes	ND	0.0250	1	05/20/25	05/22/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	82.5 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521046
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/20/25	05/22/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	96.2 %	70-130		05/20/25	05/22/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: HM		Batch: 2521103
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/23/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/23/25	
<i>Surrogate: n-Nonane</i>						
	102 %	61-141		05/21/25	05/23/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2521071
Chloride	208	20.0	1	05/21/25	05/23/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/27/2025 11:26:38AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521046-BLK1) Prepared: 05/20/25 Analyzed: 05/22/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.25		8.00		90.6	70-130			

LCS (2521046-BS1) Prepared: 05/20/25 Analyzed: 05/22/25

Benzene	5.88	0.0250	5.00		118	70-130			
Ethylbenzene	5.77	0.0250	5.00		115	70-130			
Toluene	5.84	0.0250	5.00		117	70-130			
o-Xylene	5.70	0.0250	5.00		114	70-130			
p,m-Xylene	11.6	0.0500	10.0		116	70-130			
Total Xylenes	17.3	0.0250	15.0		116	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.26		8.00		90.7	70-130			

Matrix Spike (2521046-MS1) Source: E505219-08 Prepared: 05/20/25 Analyzed: 05/22/25

Benzene	5.39	0.0250	5.00	ND	108	70-130			
Ethylbenzene	5.29	0.0250	5.00	ND	106	70-130			
Toluene	5.35	0.0250	5.00	ND	107	70-130			
o-Xylene	5.21	0.0250	5.00	ND	104	70-130			
p,m-Xylene	10.7	0.0500	10.0	ND	107	70-130			
Total Xylenes	15.9	0.0250	15.0	ND	106	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.13		8.00		89.1	70-130			

Matrix Spike Dup (2521046-MSD1) Source: E505219-08 Prepared: 05/20/25 Analyzed: 05/22/25

Benzene	5.55	0.0250	5.00	ND	111	70-130	2.93	27	
Ethylbenzene	5.44	0.0250	5.00	ND	109	70-130	2.78	26	
Toluene	5.51	0.0250	5.00	ND	110	70-130	2.86	20	
o-Xylene	5.36	0.0250	5.00	ND	107	70-130	2.83	25	
p,m-Xylene	11.0	0.0500	10.0	ND	110	70-130	2.75	23	
Total Xylenes	16.3	0.0250	15.0	ND	109	70-130	2.78	26	
Surrogate: 4-Bromochlorobenzene-PID	7.13		8.00		89.1	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/27/2025 11:26:38AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521046-BLK1) Prepared: 05/20/25 Analyzed: 05/22/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.56		8.00		94.5	70-130			

LCS (2521046-BS2) Prepared: 05/20/25 Analyzed: 05/22/25

Gasoline Range Organics (C6-C10)	44.5	20.0	50.0		88.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.72		8.00		96.5	70-130			

Matrix Spike (2521046-MS2) Source: E505219-08 Prepared: 05/20/25 Analyzed: 05/22/25

Gasoline Range Organics (C6-C10)	41.0	20.0	50.0	ND	82.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.63		8.00		95.4	70-130			

Matrix Spike Dup (2521046-MSD2) Source: E505219-08 Prepared: 05/20/25 Analyzed: 05/22/25

Gasoline Range Organics (C6-C10)	45.3	20.0	50.0	ND	90.5	70-130	9.88	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.68		8.00		96.0	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/27/2025 11:26:38AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: HM

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521103-BLK1)					Prepared: 05/21/25 Analyzed: 05/23/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	50.8		50.0		102	61-141			

LCS (2521103-BS1)					Prepared: 05/21/25 Analyzed: 05/23/25				
Diesel Range Organics (C10-C28)	261	25.0	250		104	66-144			
Surrogate: n-Nonane	50.8		50.0		102	61-141			

Matrix Spike (2521103-MS1)					Source: E505219-02		Prepared: 05/21/25 Analyzed: 05/23/25		
Diesel Range Organics (C10-C28)	266	25.0	250	ND	107	56-156			
Surrogate: n-Nonane	53.2		50.0		106	61-141			

Matrix Spike Dup (2521103-MSD1)					Source: E505219-02		Prepared: 05/21/25 Analyzed: 05/23/25		
Diesel Range Organics (C10-C28)	263	25.0	250	ND	105	56-156	1.40	20	
Surrogate: n-Nonane	52.0		50.0		104	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/27/2025 11:26:38AM
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Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521071-BLK1)					Prepared: 05/21/25 Analyzed: 05/22/25				
Chloride	ND	20.0							
LCS (2521071-BS1)					Prepared: 05/21/25 Analyzed: 05/22/25				
Chloride	259	20.0	250		104	90-110			
Matrix Spike (2521071-MS1)					Source: E505219-03		Prepared: 05/21/25 Analyzed: 05/22/25		
Chloride	484	20.0	250	212	109	80-120			
Matrix Spike Dup (2521071-MSD1)					Source: E505219-03		Prepared: 05/21/25 Analyzed: 05/22/25		
Chloride	490	20.0	250	212	111	80-120	1.39	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/27/25 11:26

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Page 1 of 1

Client Information				Invoice Information				Lab Use Only				TAT				State					
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX		
Project: Marbob State #001 SWD				Address: 3122 National Parks Hwy				E505219		23003-0002					X	X					
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220																	
Address: 3122 National Parks Hwy				Phone: 575-988-0055																	
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com																	
Phone: 575-988-0055				Miscellaneous:																	
Email: agiovengo@ensolum.com																					
Sample Information										Analysis and Method								EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCED 1005 - TX	RCRA 8 Metals	Temp	SDWA	CWA	RCRA			
9:28	5/16/2025	S	1	BH05-0'		1						X			0.6						
9:30	5/16/2025	S	1	BH05-1'		2						X			1.1						
9:34	5/16/2025	S	1	BH05-2'		3						X			2.2						
10:50	5/16/2025	S	1	BH06-0'		4						X			2.9						
11:03	5/16/2025	S	1	BH06-2'		5						X			2.4						
11:28	5/16/2025	S	1	BH06-4'		6						X			0.7						
11:37	5/16/2025	S	1	BH06-6'		7						X			0.9						
13:19	5/16/2025	S	1	BH06-8'		8						X			2.9						
13:36	5/16/2025	S	1	BH06-10'		9						X			2.1						
14:17	5/16/2025	S	1	BH06-11'		10						X			2.4						
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bsimmons@ensolum.com, igonzalez@ensolum.com, bmoir@ensolum.com, oaderinto@ensolum.com																					
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																					
Sampled by: Aboubakar Kone																					
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: ☒ Y / ☐ N T1 _____ T2 _____ T3 _____ AVG Temp °C _____													
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time														
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time														
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time														
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other																					
Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																					
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																					



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Chain of Custody

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State						
Client: Matador Production Company				Company: Ensolum LLC		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX			
Project: Marbob State #001 SWD				Address: 3122 National Parks Hwy		E505219	23003-0002				X	X						
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220														
Address: 3122 National Parks Hwy				Phone: 575-988-0055														
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com														
Phone: 575-988-0055				Miscellaneous:														
Email: agiovengo@ensolum.com																		
Sample Information						Analysis and Method								EPA Program				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Temp	SDWA	CWA	RCRA
9:28	5/16/2025	S	1	BH05-0'		1						X			0.6			
9:30	5/16/2025	S	1	BH05-1'		2						X			1.1			
9:34	5/16/2025	S	1	BH05-2'		3						X			2.2	Only run for BGDOC if BH05-1' is greater than 100 TPH or 600 CL-		
10:50	5/16/2025	S	1	BH06-0'		4						X			2.9			
11:03	5/16/2025	S	1	BH06-2'		5						X			2.4			
11:28	5/16/2025	S	1	BH06-4'		6						X			0.7			
11:37	5/16/2025	S	1	BH06-6'		7						X			0.9			
13:19	5/16/2025	S	1	BH06-8'		8						X			2.9			
13:36	5/16/2025	S	1	BH06-10'		9						X			2.1			
14:17	5/16/2025	S	1	BH06-11'		10						X			2.4	Only run for BGDOC if BH10-10' is greater than 100 TPH or 600 CL-		
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bsimmons@ensolum.com, jgonzalez@ensolum.com, bmoir@ensolum.com, oaderinto@ensolum.com																		
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																		
Sampled by: Aboubakar Kone																		
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: ☒ Y / ☐ N T1 _____ T2 _____ T3 _____ AVG Temp °C _____ Container type: g - glass, p - poly/plastic, ag - amber glass, v - VOA										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other																		
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																		



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Envirotech Analytical Laboratory

Printed: 5/21/2025 9:07:27AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/20/25 07:45	Work Order ID:	E505219
Phone:	(972) 371-5200	Date Logged In:	05/19/25 14:28	Logged In By:	Caitlin Mars
Email:	agiovengo@ensolum.com	Due Date:	05/27/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client InstructionComments/Resolution

Client remarks- Do not run Sample 3 if BH05-1 is greater than 100 TPH or 600 CL. Do not run sample 10 if BH06-10 is greater than 100 TPH or 600 CL.

Signature of client authorizing changes to the COC or sample disposition.

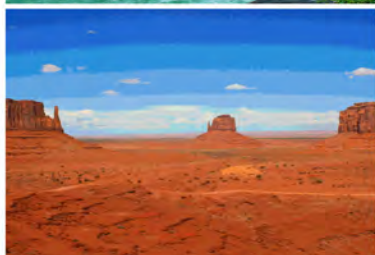
Date



envirotech Inc.

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505236

Job Number: 23003-0002

Received: 5/21/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/28/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/28/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E505236
Date Received: 5/21/2025 8:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/21/2025 8:00:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

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Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/28/25 09:44
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH07-0'	E505236-01A	Soil	05/19/25	05/21/25	Glass Jar, 2 oz.
BH07-1'	E505236-02A	Soil	05/19/25	05/21/25	Glass Jar, 2 oz.
BH07-2'	E505236-03A	Soil	05/19/25	05/21/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/28/2025 9:44:47AM

BH07-0'

E505236-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521088	
Benzene	ND	0.0250	1	05/21/25	05/23/25	
Ethylbenzene	ND	0.0250	1	05/21/25	05/23/25	
Toluene	ND	0.0250	1	05/21/25	05/23/25	
o-Xylene	ND	0.0250	1	05/21/25	05/23/25	
p,m-Xylene	ND	0.0500	1	05/21/25	05/23/25	
Total Xylenes	ND	0.0250	1	05/21/25	05/23/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		109 %	70-130	05/21/25	05/23/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521088	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/25	05/23/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		101 %	70-130	05/21/25	05/23/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521077	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/27/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/27/25	
<i>Surrogate: n-Nonane</i>		108 %	61-141	05/21/25	05/27/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521119	
Chloride	31000	1000	50	05/22/25	05/22/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/28/2025 9:44:47AM

BH07-1'

E505236-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521088	
Benzene	ND	0.0250	1	05/21/25	05/23/25	
Ethylbenzene	ND	0.0250	1	05/21/25	05/23/25	
Toluene	ND	0.0250	1	05/21/25	05/23/25	
o-Xylene	ND	0.0250	1	05/21/25	05/23/25	
p,m-Xylene	ND	0.0500	1	05/21/25	05/23/25	
Total Xylenes	ND	0.0250	1	05/21/25	05/23/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		109 %	70-130	05/21/25	05/23/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521088	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/25	05/23/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		101 %	70-130	05/21/25	05/23/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521077	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/27/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/27/25	
<i>Surrogate: n-Nonane</i>		106 %	61-141	05/21/25	05/27/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521119	
Chloride	1310	100	5	05/22/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/28/2025 9:44:47AM

BH07-2'

E505236-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2521088	
Benzene	ND	0.0250	1	05/21/25	05/23/25	
Ethylbenzene	ND	0.0250	1	05/21/25	05/23/25	
Toluene	ND	0.0250	1	05/21/25	05/23/25	
o-Xylene	ND	0.0250	1	05/21/25	05/23/25	
p,m-Xylene	ND	0.0500	1	05/21/25	05/23/25	
Total Xylenes	ND	0.0250	1	05/21/25	05/23/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		108 %	70-130	05/21/25	05/23/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2521088	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/21/25	05/23/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		101 %	70-130	05/21/25	05/23/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521077	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/21/25	05/27/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/21/25	05/27/25	
<i>Surrogate: n-Nonane</i>		111 %	61-141	05/21/25	05/27/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521119	
Chloride	152	20.0	1	05/22/25	05/23/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/28/2025 9:44:47AM

Volatile Organics by EPA 8021B

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521088-BLK1)

Prepared: 05/21/25 Analyzed: 05/23/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.35		8.00		104	70-130			

LCS (2521088-BS1)

Prepared: 05/21/25 Analyzed: 05/23/25

Benzene	4.81	0.0250	5.00		96.3	70-130			
Ethylbenzene	4.76	0.0250	5.00		95.2	70-130			
Toluene	4.81	0.0250	5.00		96.2	70-130			
o-Xylene	4.68	0.0250	5.00		93.7	70-130			
p,m-Xylene	9.59	0.0500	10.0		95.9	70-130			
Total Xylenes	14.3	0.0250	15.0		95.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.65		8.00		108	70-130			

Matrix Spike (2521088-MS1)

Source: E505233-06

Prepared: 05/21/25 Analyzed: 05/23/25

Benzene	5.32	0.0250	5.00	ND	106	70-130			
Ethylbenzene	5.23	0.0250	5.00	ND	105	70-130			
Toluene	5.30	0.0250	5.00	ND	106	70-130			
o-Xylene	5.16	0.0250	5.00	ND	103	70-130			
p,m-Xylene	10.5	0.0500	10.0	ND	105	70-130			
Total Xylenes	15.7	0.0250	15.0	ND	104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.62		8.00		108	70-130			

Matrix Spike Dup (2521088-MSD1)

Source: E505233-06

Prepared: 05/21/25 Analyzed: 05/23/25

Benzene	5.55	0.0250	5.00	ND	111	70-130	4.31	27	
Ethylbenzene	5.47	0.0250	5.00	ND	109	70-130	4.41	26	
Toluene	5.54	0.0250	5.00	ND	111	70-130	4.38	20	
o-Xylene	5.40	0.0250	5.00	ND	108	70-130	4.43	25	
p,m-Xylene	11.0	0.0500	10.0	ND	110	70-130	4.42	23	
Total Xylenes	16.4	0.0250	15.0	ND	109	70-130	4.42	26	
Surrogate: 4-Bromochlorobenzene-PID	8.62		8.00		108	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/28/2025 9:44:47AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521088-BLK1) Prepared: 05/21/25 Analyzed: 05/23/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.02		8.00		100	70-130			

LCS (2521088-BS2) Prepared: 05/21/25 Analyzed: 05/23/25

Gasoline Range Organics (C6-C10)	44.3	20.0	50.0		88.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.21		8.00		103	70-130			

Matrix Spike (2521088-MS2) Source: E505233-06 Prepared: 05/21/25 Analyzed: 05/23/25

Gasoline Range Organics (C6-C10)	47.1	20.0	50.0	ND	94.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.20		8.00		103	70-130			

Matrix Spike Dup (2521088-MSD2) Source: E505233-06 Prepared: 05/21/25 Analyzed: 05/23/25

Gasoline Range Organics (C6-C10)	45.5	20.0	50.0	ND	90.9	70-130	3.54	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.19		8.00		102	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/28/2025 9:44:47AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521077-BLK1)					Prepared: 05/21/25 Analyzed: 05/27/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.2		50.0		110	61-141			

LCS (2521077-BS1)					Prepared: 05/21/25 Analyzed: 05/27/25				
Diesel Range Organics (C10-C28)	291	25.0	250		116	66-144			
Surrogate: n-Nonane	51.3		50.0		103	61-141			

Matrix Spike (2521077-MS1)					Source: E505238-02		Prepared: 05/21/25 Analyzed: 05/27/25		
Diesel Range Organics (C10-C28)	298	25.0	250	ND	119	56-156			
Surrogate: n-Nonane	55.5		50.0		111	61-141			

Matrix Spike Dup (2521077-MSD1)					Source: E505238-02		Prepared: 05/21/25 Analyzed: 05/27/25		
Diesel Range Organics (C10-C28)	308	25.0	250	ND	123	56-156	3.33	20	
Surrogate: n-Nonane	56.5		50.0		113	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/28/2025 9:44:47AM
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Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521119-BLK1)						Prepared: 05/22/25 Analyzed: 05/22/25			
Chloride	ND	20.0							
LCS (2521119-BS1)						Prepared: 05/22/25 Analyzed: 05/22/25			
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2521119-MS1)				Source: E505227-03		Prepared: 05/22/25 Analyzed: 05/22/25			
Chloride	258	20.0	250	ND	103	80-120			
Matrix Spike Dup (2521119-MSD1)				Source: E505227-03		Prepared: 05/22/25 Analyzed: 05/22/25			
Chloride	258	20.0	250	ND	103	80-120	0.230	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/28/25 09:44

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Page 1 of 1

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Matador Production Company				Company: Ensolum LLC				Lab WO#		Job Number		1D		2D		3D		Std	
Project: Marbob State #001 SWD				Address: 3122 National Parks Hwy				E505236		2303-0002								X	
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220															
Address: 3122 National Parks Hwy				Phone: 575-988-0055															
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com															
Phone: 575-988-0055				Miscellaneous:															
Email: agiovengo@ensolum.com																			

Sample Information																							
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals									
11:00	5/19/2025	S	1	BH07-0'		1						X							2.5				
11:03	5/19/2025	S	1	BH07-1'		2						X							2.3				
11:07	5/19/2025	S	1	BH07-2'		3						X							2.4				

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bsimmons@ensolum.com, igonzalez@ensolum.com, bmoir@ensolum.com, oaderinto@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Aboubakar Kone

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days. Lab Use Only Received on ice: ☒ Y / ☐ N T1 _____ T2 _____ T3 _____ AVG Temp °C _____
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



envirotech

Envirotech Analytical Laboratory

Printed: 5/21/2025 9:36:22AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/21/25 08:00	Work Order ID:	E505236
Phone:	(972) 371-5200	Date Logged In:	05/20/25 15:27	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	05/28/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E505246

Job Number: 23003-0002

Received: 5/22/2025

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
5/29/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 5/29/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E505246
Date Received: 5/22/2025 6:45:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/22/2025 6:45:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

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mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

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Chain of Custody etc.

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 05/29/25 08:49
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH08-4'	E505246-01A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH08-5'	E505246-02A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH08-6'	E505246-03A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH09-4'	E505246-04A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH09-5'	E505246-05A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10A-4'	E505246-06A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10A-5'	E505246-07A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10A-6'	E505246-08A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10B-4'	E505246-09A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10B-5'	E505246-10A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10B-6'	E505246-11A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10C-4'	E505246-12A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10C-5'	E505246-13A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.
BH10-6'	E505246-14A	Soil	05/20/25	05/22/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2025 8:49:04AM
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BH08-4'

E505246-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		111 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>		113 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	968	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH08-5'

E505246-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.1 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		113 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>		116 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	590	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH08-6'

E505246-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		110 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>		116 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	382	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH09-4'

E505246-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		109 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2521132
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>						
		114 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2521136
Chloride	390	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH09-5'

E505246-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	97.8 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	109 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>	118 %	61-141		05/23/25	05/24/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	212	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2025 8:49:04AM
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BH10A-4'

E505246-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		108 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>		116 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	ND	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH10A-5'

E505246-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		113 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>						
		116 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	ND	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH10A-6'

E505246-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		101 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		111 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2521132
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>						
		112 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2521136
Chloride	ND	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH10B-4'

E505246-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	99.4 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	110 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2521132
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>						
	114 %	61-141		05/23/25	05/24/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2521136
Chloride	89.4	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH10B-5'**E505246-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.1 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	110 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>						
	114 %	61-141		05/23/25	05/24/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	72.1	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH10B-6'**E505246-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
Surrogate: 4-Bromochlorobenzene-PID	91.2 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
Surrogate: 1-Chloro-4-fluorobenzene-FID	112 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2521132
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
Surrogate: n-Nonane	117 %	61-141		05/23/25	05/24/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2521136
Chloride	45.3	20.0	1	05/23/25	05/23/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
5/29/2025 8:49:04AM

BH10C-4'

E505246-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		105 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: SL		Batch: 2521112
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		112 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2521132
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>						
		115 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2521136
Chloride	71.9	20.0	1	05/23/25	05/24/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2025 8:49:04AM
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BH10C-5'

E505246-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		111 %	70-130	05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>		117 %	61-141	05/23/25	05/24/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	82.8	20.0	1	05/23/25	05/24/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2025 8:49:04AM
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BH10-6'

E505246-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Benzene	ND	0.0250	1	05/22/25	05/24/25	
Ethylbenzene	ND	0.0250	1	05/22/25	05/24/25	
Toluene	ND	0.0250	1	05/22/25	05/24/25	
o-Xylene	ND	0.0250	1	05/22/25	05/24/25	
p,m-Xylene	ND	0.0500	1	05/22/25	05/24/25	
Total Xylenes	ND	0.0250	1	05/22/25	05/24/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	98.9 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2521112	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/22/25	05/24/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	113 %	70-130		05/22/25	05/24/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2521132	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/23/25	05/24/25	
Oil Range Organics (C28-C36)	ND	50.0	1	05/23/25	05/24/25	
<i>Surrogate: n-Nonane</i>	118 %	61-141		05/23/25	05/24/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2521136	
Chloride	70.2	20.0	1	05/23/25	05/24/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2025 8:49:04AM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521112-BLK1)

Prepared: 05/22/25 Analyzed: 05/24/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.94		8.00		99.3	70-130			

LCS (2521112-BS1)

Prepared: 05/22/25 Analyzed: 05/24/25

Benzene	4.77	0.0250	5.00		95.5	70-130			
Ethylbenzene	4.93	0.0250	5.00		98.6	70-130			
Toluene	4.88	0.0250	5.00		97.6	70-130			
o-Xylene	4.92	0.0250	5.00		98.4	70-130			
p,m-Xylene	10.0	0.0500	10.0		100	70-130			
Total Xylenes	14.9	0.0250	15.0		99.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.94		8.00		99.3	70-130			

Matrix Spike (2521112-MS1)

Source: E505246-06

Prepared: 05/22/25 Analyzed: 05/27/25

Benzene	4.84	0.0250	5.00	ND	96.8	70-130			
Ethylbenzene	4.82	0.0250	5.00	ND	96.3	70-130			
Toluene	4.83	0.0250	5.00	ND	96.7	70-130			
o-Xylene	4.77	0.0250	5.00	ND	95.5	70-130			
p,m-Xylene	9.79	0.0500	10.0	ND	97.9	70-130			
Total Xylenes	14.6	0.0250	15.0	ND	97.1	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.59		8.00		94.9	70-130			

Matrix Spike Dup (2521112-MSD1)

Source: E505246-06

Prepared: 05/22/25 Analyzed: 05/24/25

Benzene	4.78	0.0250	5.00	ND	95.6	70-130	1.24	27	
Ethylbenzene	4.89	0.0250	5.00	ND	97.7	70-130	1.44	26	
Toluene	4.86	0.0250	5.00	ND	97.3	70-130	0.618	20	
o-Xylene	4.90	0.0250	5.00	ND	97.9	70-130	2.51	25	
p,m-Xylene	9.88	0.0500	10.0	ND	98.8	70-130	0.992	23	
Total Xylenes	14.8	0.0250	15.0	ND	98.5	70-130	1.49	26	
Surrogate: 4-Bromochlorobenzene-PID	7.49		8.00		93.7	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2025 8:49:04AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521112-BLK1) Prepared: 05/22/25 Analyzed: 05/24/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.98		8.00		112	70-130			

LCS (2521112-BS2) Prepared: 05/22/25 Analyzed: 05/27/25

Gasoline Range Organics (C6-C10)	49.2	20.0	50.0		98.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	9.49		8.00		119	70-130			

Matrix Spike (2521112-MS2) Source: E505246-06 Prepared: 05/22/25 Analyzed: 05/24/25

Gasoline Range Organics (C6-C10)	52.6	20.0	50.0	ND	105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.92		8.00		111	70-130			

Matrix Spike Dup (2521112-MSD2) Source: E505246-06 Prepared: 05/22/25 Analyzed: 05/27/25

Gasoline Range Organics (C6-C10)	55.7	20.0	50.0	ND	111	70-130	5.82	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	9.22		8.00		115	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	5/29/2025 8:49:04AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521132-BLK1)					Prepared: 05/23/25 Analyzed: 05/24/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.6		50.0		111	61-141			

LCS (2521132-BS1)					Prepared: 05/23/25 Analyzed: 05/24/25				
Diesel Range Organics (C10-C28)	314	25.0	250		126	66-144			
Surrogate: n-Nonane	57.0		50.0		114	61-141			

Matrix Spike (2521132-MS1)					Source: E505246-01		Prepared: 05/23/25 Analyzed: 05/24/25		
Diesel Range Organics (C10-C28)	308	25.0	250	ND	123	56-156			
Surrogate: n-Nonane	57.6		50.0		115	61-141			

Matrix Spike Dup (2521132-MSD1)					Source: E505246-01		Prepared: 05/23/25 Analyzed: 05/24/25		
Diesel Range Organics (C10-C28)	322	25.0	250	ND	129	56-156	4.41	20	
Surrogate: n-Nonane	61.0		50.0		122	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 5/29/2025 8:49:04AM
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Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2521136-BLK1)					Prepared: 05/23/25 Analyzed: 05/23/25				
Chloride	ND	20.0							
LCS (2521136-BS1)					Prepared: 05/23/25 Analyzed: 05/23/25				
Chloride	256	20.0	250		102	90-110			
Matrix Spike (2521136-MS1)					Source: E505246-05		Prepared: 05/23/25 Analyzed: 05/23/25		
Chloride	477	20.0	250	212	106	80-120			
Matrix Spike Dup (2521136-MSD1)					Source: E505246-05		Prepared: 05/23/25 Analyzed: 05/23/25		
Chloride	464	20.0	250	212	101	80-120	2.62	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	05/29/25 08:49

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Matador Production Company				Company: Ensolum LLC		Lab WO# E502240		Job Number 2303-002		1D	2D	3D	Std	NM	CO	UT	TX
Project: Marbob State #001 SWD				Address: 3122 National Parks Hwy									X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Carlsbad NM, 88220													
Address: 3122 National Parks Hwy				Phone: 575-988-0055													
City, State, Zip: Carlsbad NM, 88220				Email: agiovengo@ensolum.com													
Phone: 575-988-0055				Miscellaneous:													
Email: agiovengo@ensolum.com																	
Sample Information										Analysis and Method				EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
10:25	5/20/2025	S	1	BH08-4'		1						X					
10:29	5/20/2025	S	1	BH08-5'		2						X					
10:35	5/20/2025	S	1	BH08-6'		3						X					
13:28	5/20/2025	S	1	BH09-4'		4						X					
13:34	5/20/2025	S	1	BH09-5'		5						X					
14:54	5/20/2025	S	1	BH10A-4'		6						X					
14:58	5/20/2025	S	1	BH10A-5'		7						X					
15:02	5/20/2025	S	1	BH10A-6'		8						X					
15:51	5/20/2025	S	1	BH10B-4'		9						X					
15:55	5/20/2025	S	1	BH10B-5'		10						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chamilton@ensolum.com, iestrella@ensolum.com, bsimmons@ensolum.com, igonzalez@ensolum.com, bmoir@ensolum.com, oaderinto@ensolum.com I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.																	
Sampled by: _____ Aboubakar Kone																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days. Lab Use Only Received on ice: (Y) / N T1 _____ T2 _____ T3 _____ AVG Temp °C _____									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA _____																	
Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																	


envirotech

Page 2 of 2

envirotecl

Envirotech Analytical Laboratory

Printed: 5/22/2025 7:36:23AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	05/22/25 06:45	Work Order ID:	E505246
Phone:	(972) 371-5200	Date Logged In:	05/21/25 14:28	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	05/29/25 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

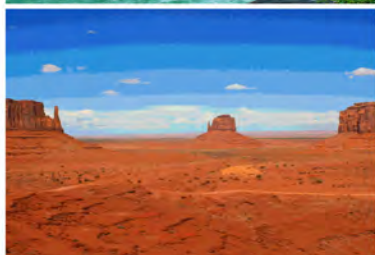
Date



envirotech Inc.

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Matador Resources, LLC.

Project Name: Marbob State 001 SWD

Work Order: E508324

Job Number: 23003-0002

Received: 8/29/2025

Revision: 0

Report Reviewed By:

Draft

Walter Hinchman
Laboratory Director
9/2/25

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.
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Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 9/2/25



Ashley Giovengo
5400 LBJ Freeway, Suite 1500
Dallas, TX 75240

Project Name: Marbob State 001 SWD
Workorder: E508324
Date Received: 8/29/2025 7:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/29/2025 7:15:00AM, under the Project Name: Marbob State 001 SWD.

The analytical test results summarized in this report with the Project Name: Marbob State 001 SWD apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
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Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 09/02/25 12:11
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS06-.5'	E508324-01A	Soil	08/27/25	08/29/25	Glass Jar, 2 oz.
SS07-0'	E508324-02A	Soil	08/27/25	08/29/25	Glass Jar, 2 oz.
SS07-1'	E508324-03A	Soil	08/27/25	08/29/25	Glass Jar, 2 oz.
SS08-0'	E508324-04A	Soil	08/27/25	08/29/25	Glass Jar, 2 oz.
SS08-1'	E508324-05A	Soil	08/27/25	08/29/25	Glass Jar, 2 oz.



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
9/2/2025 12:11:23PM

SS06-.5'

E508324-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Benzene	ND	0.0250	1	08/29/25	08/29/25	
Ethylbenzene	ND	0.0250	1	08/29/25	08/29/25	
Toluene	ND	0.0250	1	08/29/25	08/29/25	
o-Xylene	ND	0.0250	1	08/29/25	08/29/25	
p,m-Xylene	ND	0.0500	1	08/29/25	08/29/25	
Total Xylenes	ND	0.0250	1	08/29/25	08/29/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.7 %	70-130	08/29/25	08/29/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/29/25	08/29/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		102 %	70-130	08/29/25	08/29/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2535126	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/29/25	08/30/25	
Oil Range Organics (C28-C36)	ND	50.0	1	08/29/25	08/30/25	
<i>Surrogate: n-Nonane</i>		92.3 %	61-141	08/29/25	08/30/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2535121	
Chloride	108	20.0	1	08/29/25	08/29/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
9/2/2025 12:11:23PM

SS07-0'

E508324-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Benzene	ND	0.0250	1	08/29/25	08/29/25	
Ethylbenzene	ND	0.0250	1	08/29/25	08/29/25	
Toluene	ND	0.0250	1	08/29/25	08/29/25	
o-Xylene	ND	0.0250	1	08/29/25	08/29/25	
p,m-Xylene	ND	0.0500	1	08/29/25	08/29/25	
Total Xylenes	ND	0.0250	1	08/29/25	08/29/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	98.9 %	70-130		08/29/25	08/29/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/29/25	08/29/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	106 %	70-130		08/29/25	08/29/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2535126	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/29/25	08/30/25	
Oil Range Organics (C28-C36)	ND	50.0	1	08/29/25	08/30/25	
<i>Surrogate: n-Nonane</i>	96.3 %	61-141		08/29/25	08/30/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2535121	
Chloride	ND	20.0	1	08/29/25	08/29/25	



Sample Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 9/2/2025 12:11:23PM
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SS07-1'

E508324-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Benzene	ND	0.0250	1	08/29/25	08/29/25	
Ethylbenzene	ND	0.0250	1	08/29/25	08/29/25	
Toluene	ND	0.0250	1	08/29/25	08/29/25	
o-Xylene	ND	0.0250	1	08/29/25	08/29/25	
p,m-Xylene	ND	0.0500	1	08/29/25	08/29/25	
Total Xylenes	ND	0.0250	1	08/29/25	08/29/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	08/29/25	08/29/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/29/25	08/29/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		103 %	70-130	08/29/25	08/29/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2535126	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/29/25	08/30/25	
Oil Range Organics (C28-C36)	ND	50.0	1	08/29/25	08/30/25	
<i>Surrogate: n-Nonane</i>		98.9 %	61-141	08/29/25	08/30/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2535121	
Chloride	91.4	20.0	1	08/29/25	08/29/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
9/2/2025 12:11:23PM

SS08-0'

E508324-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Benzene	ND	0.0250	1	08/29/25	08/30/25	
Ethylbenzene	ND	0.0250	1	08/29/25	08/30/25	
Toluene	ND	0.0250	1	08/29/25	08/30/25	
o-Xylene	ND	0.0250	1	08/29/25	08/30/25	
p,m-Xylene	ND	0.0500	1	08/29/25	08/30/25	
Total Xylenes	ND	0.0250	1	08/29/25	08/30/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.7 %	70-130	08/29/25	08/30/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/29/25	08/30/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %	70-130	08/29/25	08/30/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2535126	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/29/25	08/30/25	
Oil Range Organics (C28-C36)	ND	50.0	1	08/29/25	08/30/25	
<i>Surrogate: n-Nonane</i>		96.5 %	61-141	08/29/25	08/30/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2535121	
Chloride	252	20.0	1	08/29/25	08/29/25	



Sample Data

Matador Resources, LLC.
5400 LBJ Freeway, Suite 1500
Dallas TX, 75240

Project Name: Marbob State 001 SWD
Project Number: 23003-0002
Project Manager: Ashley Giovengo

Reported:
9/2/2025 12:11:23PM

SS08-1'

E508324-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Benzene	ND	0.0250	1	08/29/25	08/30/25	
Ethylbenzene	ND	0.0250	1	08/29/25	08/30/25	
Toluene	ND	0.0250	1	08/29/25	08/30/25	
o-Xylene	ND	0.0250	1	08/29/25	08/30/25	
p,m-Xylene	ND	0.0500	1	08/29/25	08/30/25	
Total Xylenes	ND	0.0250	1	08/29/25	08/30/25	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	08/29/25	08/30/25	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: SL		Batch: 2535120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/29/25	08/30/25	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %	70-130	08/29/25	08/30/25	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KH		Batch: 2535126	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/29/25	08/30/25	
Oil Range Organics (C28-C36)	ND	50.0	1	08/29/25	08/30/25	
<i>Surrogate: n-Nonane</i>		98.4 %	61-141	08/29/25	08/30/25	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2535121	
Chloride	361	20.0	1	08/29/25	08/29/25	



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	9/2/2025 12:11:23PM

Volatile Organics by EPA 8021B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2535120-BLK1) Prepared: 08/29/25 Analyzed: 08/29/25

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.09		8.00		101	70-130			

LCS (2535120-BS1) Prepared: 08/29/25 Analyzed: 08/29/25

Benzene	5.21	0.0250	5.00		104	70-130			
Ethylbenzene	5.15	0.0250	5.00		103	70-130			
Toluene	5.19	0.0250	5.00		104	70-130			
o-Xylene	5.15	0.0250	5.00		103	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.6	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.03		8.00		100	70-130			

Matrix Spike (2535120-MS1) Source: E508321-01 Prepared: 08/29/25 Analyzed: 08/29/25

Benzene	5.28	0.0250	5.00	ND	106	70-130			
Ethylbenzene	5.21	0.0250	5.00	ND	104	70-130			
Toluene	5.26	0.0250	5.00	ND	105	70-130			
o-Xylene	5.21	0.0250	5.00	ND	104	70-130			
p,m-Xylene	10.6	0.0500	10.0	ND	106	70-130			
Total Xylenes	15.8	0.0250	15.0	ND	105	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.97		8.00		99.6	70-130			

Matrix Spike Dup (2535120-MSD1) Source: E508321-01 Prepared: 08/29/25 Analyzed: 08/29/25

Benzene	5.32	0.0250	5.00	ND	106	70-130	0.652	27	
Ethylbenzene	5.26	0.0250	5.00	ND	105	70-130	0.923	26	
Toluene	5.30	0.0250	5.00	ND	106	70-130	0.724	20	
o-Xylene	5.25	0.0250	5.00	ND	105	70-130	0.726	25	
p,m-Xylene	10.7	0.0500	10.0	ND	107	70-130	0.818	23	
Total Xylenes	15.9	0.0250	15.0	ND	106	70-130	0.788	26	
Surrogate: 4-Bromochlorobenzene-PID	8.08		8.00		101	70-130			

Matrix Spike Dup (2535120-MSD2) Source: E508321-01 Prepared: 08/29/25 Analyzed: 08/29/25

Benzene	0.655	0.0250		ND		70-130	156	27	
Ethylbenzene	0.786	0.0250		ND		70-130	148	26	
Toluene	3.32	0.0250		ND		70-130	45.3	20	
o-Xylene	0.944	0.0250		ND		70-130	139	25	
p,m-Xylene	2.63	0.0500		ND		70-130	120	23	
Total Xylenes	3.57	0.0250		ND		70-130	126	26	
Surrogate: 4-Bromochlorobenzene-PID	8.01		8.00		100	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	9/2/2025 12:11:23PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2535120-BLK1) Prepared: 08/29/25 Analyzed: 08/29/25

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.36		8.00		104	70-130			

Matrix Spike Dup (2535120-MSD1) Source: E508321-01 Prepared: 08/29/25 Analyzed: 08/29/25

Gasoline Range Organics (C6-C10)	65.2	20.0		ND		70-130	22.4	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.32		8.00		104	70-130			

LCS (2535120-BS2) Prepared: 08/29/25 Analyzed: 08/29/25

Gasoline Range Organics (C6-C10)	53.6	20.0	50.0		107	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.51		8.00		106	70-130			

Matrix Spike (2535120-MS2) Source: E508321-01 Prepared: 08/29/25 Analyzed: 08/29/25

Gasoline Range Organics (C6-C10)	52.1	20.0	50.0	ND	104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.58		8.00		107	70-130			

Matrix Spike Dup (2535120-MSD2) Source: E508321-01 Prepared: 08/29/25 Analyzed: 08/29/25

Gasoline Range Organics (C6-C10)	53.7	20.0	50.0	ND	107	70-130	3.05	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.32		8.00		104	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	9/2/2025 12:11:23PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KH

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2535126-BLK1)					Prepared: 08/29/25 Analyzed: 08/29/25				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.1		50.0		90.1	61-141			

LCS (2535126-BS1)					Prepared: 08/29/25 Analyzed: 08/29/25				
Diesel Range Organics (C10-C28)	224	25.0	250		89.4	66-144			
Surrogate: n-Nonane	45.1		50.0		90.2	61-141			

Matrix Spike (2535126-MS1)					Source: E508323-01		Prepared: 08/29/25 Analyzed: 08/29/25		
Diesel Range Organics (C10-C28)	242	25.0	250	ND	96.9	56-156			
Surrogate: n-Nonane	46.2		50.0		92.4	61-141			

Matrix Spike Dup (2535126-MSD1)					Source: E508323-01		Prepared: 08/29/25 Analyzed: 08/29/25		
Diesel Range Organics (C10-C28)	241	25.0	250	ND	96.5	56-156	0.441	20	
Surrogate: n-Nonane	45.4		50.0		90.8	61-141			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Marbob State 001 SWD Project Number: 23003-0002 Project Manager: Ashley Giovengo	Reported: 9/2/2025 12:11:23PM
---	--	--------------------------------------

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2535121-BLK1)					Prepared: 08/29/25 Analyzed: 08/29/25				
Chloride	ND	20.0							
LCS (2535121-BS1)					Prepared: 08/29/25 Analyzed: 08/29/25				
Chloride	251	20.0	250		101	90-110			
Matrix Spike (2535121-MS1)					Source: E508323-01		Prepared: 08/29/25 Analyzed: 08/29/25		
Chloride	452	20.0	250	188	106	80-120			
Matrix Spike Dup (2535121-MSD1)					Source: E508323-01		Prepared: 08/29/25 Analyzed: 08/29/25		
Chloride	440	20.0	250	188	101	80-120	2.56	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Matador Resources, LLC.	Project Name:	Marbob State 001 SWD	
5400 LBJ Freeway, Suite 1500	Project Number:	23003-0002	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	09/02/25 12:11

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



[illegible]

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Envirotech Analytical Laboratory

Printed: 9/2/2025 10:37:59AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Matador Resources, LLC.	Date Received:	08/29/25 07:15	Work Order ID:	E508324
Phone:	(972) 371-5200	Date Logged In:	08/28/25 15:42	Logged In By:	Caitlin Mars
Email:	agiovento@ensolum.com	Due Date:	09/02/25 07:00 (1 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Courier

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Comments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? Yes

Note: Thermal preservation is not required, if samples are received within 15 minutes of sampling

13. See COC for individual sample temps. Samples outside of 0°C-6°C will be recorded in comments.

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
 - Sample ID? Yes
 - Date/Time Collected? Yes
 - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



APPENDIX H

Remediation Closure Request



Souder, Miller & Associates ♦ 201 S. Halagueno St. ♦ Carlsbad, NM 88220
(575) 689-8801

November 8, 2018

#5E26816 BG12

NMOCD District 2
Maria Pruett
811 S. 1st Street
Artesia, New Mexico 88210

SUBJECT: Remediation Closure Report for the Marbob State #1 Release (2RP-4873-0), Eddy County, New Mexico

Dear Ms. Pruett:

On behalf of Matador Resources Company, Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at the Marbob State #1 site. The site is in Unit A, Section 19, Township 19S, Range 29E, Eddy County, New Mexico, on State of New Mexico land. Figure 1 illustrates the vicinity and site location on an USGS 7.5-minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	Marbob State #001	Company	Matador Resources Company
API Number	30-015-26040	Location	32.65182 -104.1077576
Incident Number	RP-4873-0		
Estimated Date of Release	6/29/2018	Date Reported to NMOCD	7/1/2018
Land Owner	State of New Mexico	Reported To	Mike Bratcher
Source of Release	Equipment failed causing the secondary containment to fill until the fluids spilled over the front of the battery.		
Released Volume	326 bbls	Released Material	Produced Water
Recovered Volume	Unknown	Net Release	326 bbls
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	7/10/2018, 7/20/2018, 7/24/2018 & 11/5/2018		

Marbob State #1 Remediation Closure Report (2RP-4873-0)
November 8, 2018

Page 2 of 4

1.0 Background

On June 29, 2018, a release was discovered at the Marbob State #01 site due to equipment failure. Initial response activities were conducted by Matador and included shutting down the location and using a vacuum truck to collect all standing fluids. All recovered fluid went to a NMOCD approved disposal facility. Figure 1 illustrates the regional vicinity and wellhead protection in the area, Figure 2 illustrates the surface water protection in the area, and Figure 3 illustrates the site and sample location map. The initial and final C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Marbob State #001 is located approximately 10 miles west of Hackberry Lake Located in Eddy County New Mexico on State land at an elevation of approximately 3,364 feet above mean sea level (amsl).

Based upon OSE and USGS (Appendix B), depth to groundwater in the area is estimated to be 131 feet below grade surface (bgs). There are no known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 10/4/2018). The nearest significant watercourse is the Pecos River, located approximately 11.3 miles to the east. Figure 1 illustrates the site location lying within a sensitive area as described in 19.15.29.12.C(4) NMAC. According to the Bureau of Land Management's Karst Potential Map, the location falls within an area with high karst potential. After observing the geology and surface features of the location both aerially and in person and finding no outstanding evidence of high karst on or around location, SMA then contracted Cave & Karst Surface Evaluation to perform a cave and karst survey of the area. The release area was established in the pad and pasture and then a 200-meter buffer surveyed around the perimeter and inspected for cave and karst concerns. It was concluded that there were no cave or karst concerns found within the 200-meter buffer zone of the release. The cave and karst survey report and map can be found in Appendix C.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of greater than 100 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC as well as completely delineated.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

3.0 Release Characterization Activities and Findings

On July 10, 2018, SMA personnel arrived on site in response to the release associated with Marbob State #1. SMA performed site delineation activities by collecting soil samples around the release site and throughout the visibly stained area. Soil samples were field-screened for chloride using an electrical conductivity (EC) meter. A total of 3 sample locations (BH1-BH3) were investigated on the pad using a hand-auger, to depths up to three (3) feet bgs.

After receiving elevated chloride data on lab analysis from that sampling event, SMA returned to the location to further delineate the release on July 20, 2018. The three sample locations (BH1-BH3) were advanced to depths up to 8 feet bgs and an additional 3 sample locations were created to establish vertical delineation in the pasture (BH4-BH6). SMA established the horizontal extent of the release on the pad (SW1-SW5).

Marbob State #1 Remediation Closure Report (2RP-4873-0)
November 8, 2018

Page 3 of 4

Delineation and confirmation samples were collected for laboratory analysis for a combination of total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Table 3 itemizes the samples and field-screening results as well as identifying any variances from the typical specification of two samples per boring. Locations for all samples are depicted on Figure 3.

Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

As summarized in Table 3, results indicate that an area approximately 7420 square feet on the pad and 2400 square feet in the pasture have been impacted.

4.0 Soil Remediation Summary

After approval from area utilities via 811, SMA returned to the site to guide the excavation activities by collecting soil samples for field screening. Samples were screened for chloride using an electrical conductivity (EC) meter. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. NMOCD was not notified 48 hrs prior to closure samples being collected due to the fact they were collected before NMAC - Rp, 19.15.29.5 NMAC, 8/14/2018 was put into effect.

SMA returned to location to oversee the remainder of the excavation of the pasture on July 24, 2018 and collected 10 additional confirmation sidewall samples (SW6-SW15). The release area in the pasture represented by sample locations (BH4-BH6) was excavated to a depth of 4 feet bgs, the area represented by BH3 was excavated to a depth of 4 feet bgs, and the area represented by BH1 and BH2 were excavated to 2 feet bgs. Because of construction that operations needed to complete on the pad, contaminated soils were removed and then replaced with clean backfill material to return the surface to previous contours before return on the lab analysis from the July 24th sampling event.

SMA then returned to the location on November 5, 2018 to complete the delineation of chlorides (once the construction was complete) at BH1-BH6 and collect closure sidewall samples SW1, SW2, SW6 and SW10.

Figure 3 shows the impact and sample locations. All field screening and laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

In addition to meeting the Closure Criteria, the top four (4) feet of impacted areas off the well pad meet the Reclamation requirement of 19.15.29.13(D)(1) as they were removed and replaced with clean material. The contaminated soil was transported and disposed of at an NMOCD permitted disposal facility.

5.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-8801.

Marbob State #1 Remediation Closure Report (2RP-4873-0)
November 8, 2018

Page 4 of 4

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:

Handwritten signatures of Lucas Middleton and Austin Weyant in black ink.

Lucas Middleton
Staff Scientist

Austin Weyant
Senior Scientist

ATTACHMENTS:

Figures:

- Figure 1: Vicinity and Well Head Protection Map
- Figure 2: Surface Water Protection Map
- Figure 3: Site and Sample Location Map

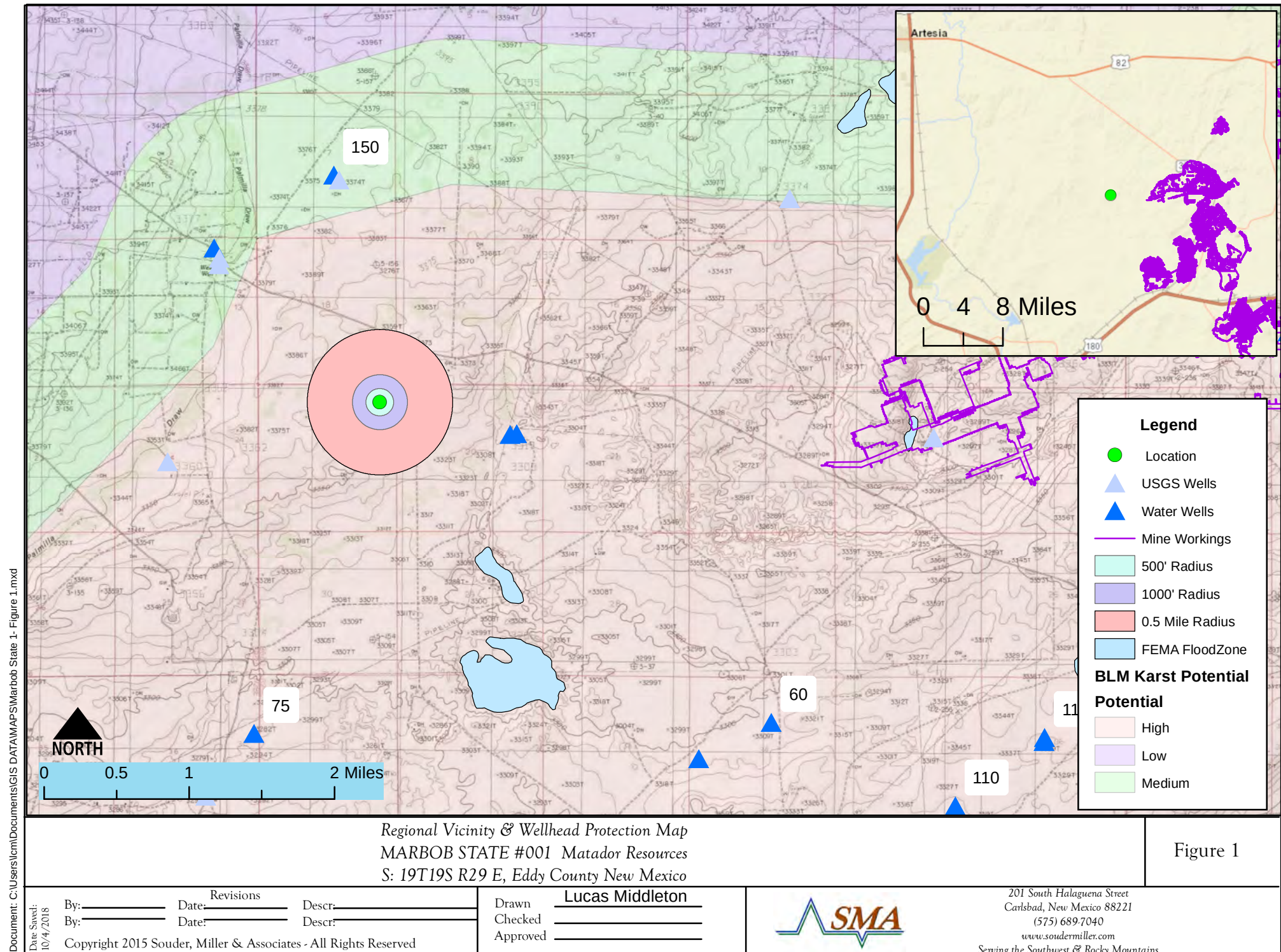
Tables:

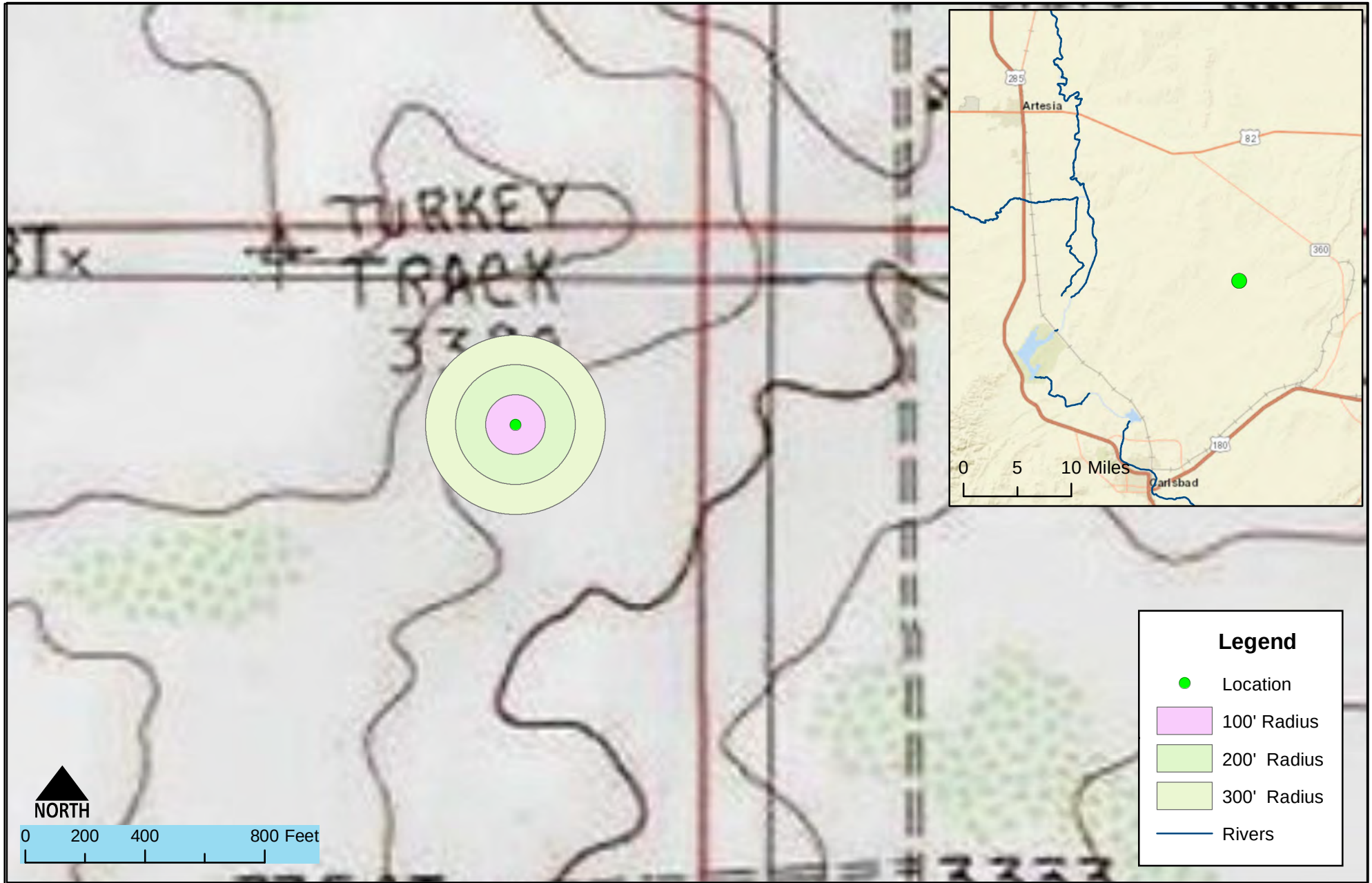
- Table 2: NMOCD Closure Criteria Justification
- Table 3: Summary of Sample Results

Appendices:

- Appendix A: Form C141
- Appendix B: NMOSE Wells Report
- Appendix C: Cave & Karst Surface Evaluation
- Appendix D: Laboratory Analytical Reports

FIGURES





Legend

- Location
- 100' Radius
- 200' Radius
- 300' Radius
- Rivers

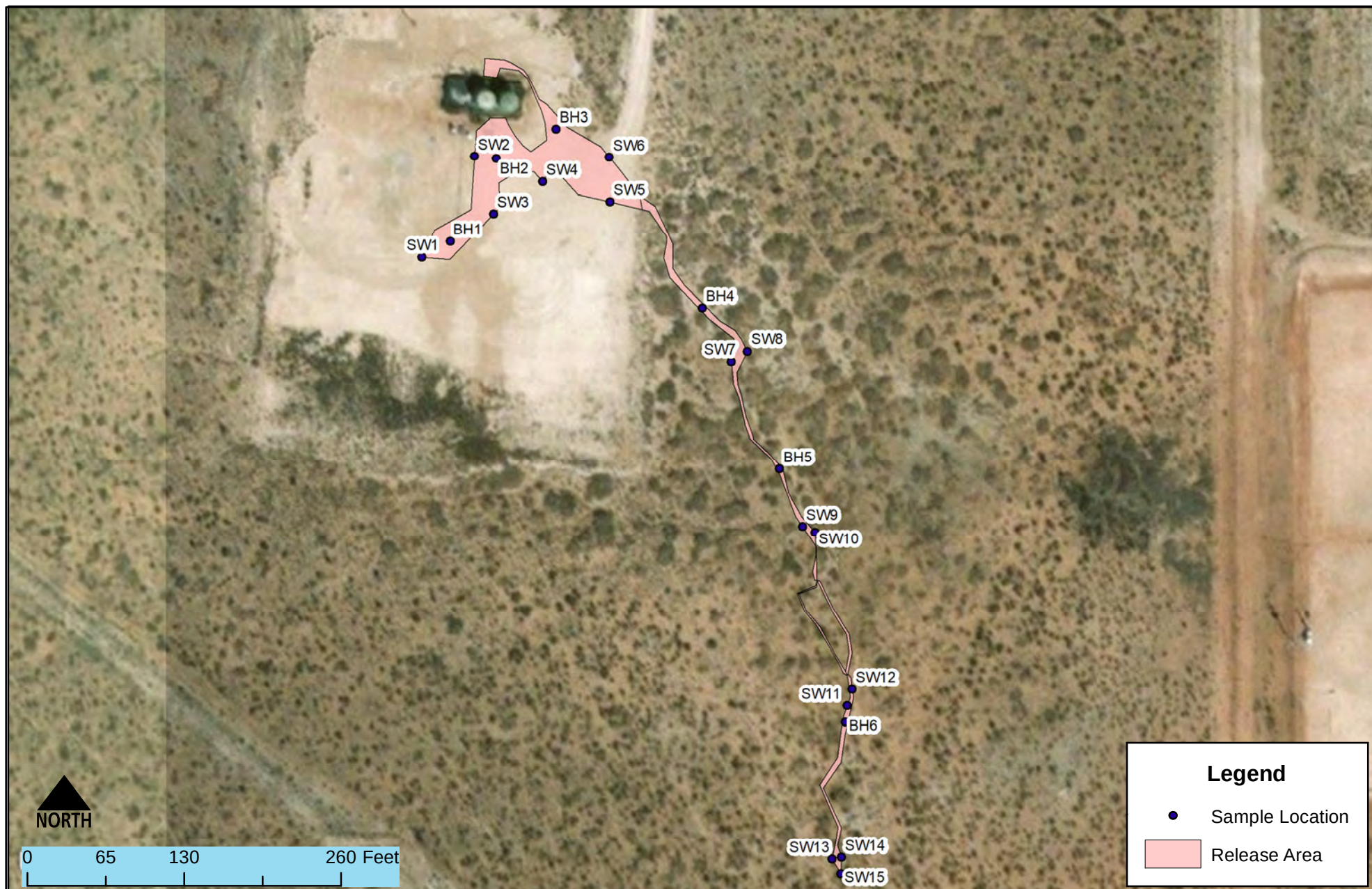
Surface Water Map
 MARBOB STATE #001 Matador Resources
 S: 19T19S R29 E, Eddy County New Mexico

Figure 2

Date Saved: 10/4/2018	By: _____	Date: _____	Revisions	Descr: _____	Drawn	Lucas Middleton
	By: _____	Date: _____		Descr: _____	Checked	_____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved					Approved	_____



201 South Halaguena Street
 Carlsbad, New Mexico 88221
 (575) 689-7040
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains



Site and Sample Location Map
 MARBOB STATE #001 Matador Resources
 S: 19T19S R29 E, Eddy County New Mexico

Figure 3

Date Saved: 11/8/2018	Revisions			Drawn Checked Approved	Lucas Middleton
	By: _____	Date: _____	Descr: _____		
	By: _____	Date: _____	Descr: _____		
	Copyright 2015 Souder, Miller & Associates - All Rights Reserved				



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TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	131	USGS & OSE
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	0	USGS & OSE
Horizontal Distance to Nearest Significant Watercourse (ft)	11.3	USGS 7.5' Topographic. Project is west of Pecos River

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		Closure Criteria (units in mg/kg)				
		Chloride *numerical limit or background, whichever is greater	TPH	GRO + DRO	BTEX	Benzene
< 50' BGS		600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'	X	20000	2500	1000	50	10
Surface Water	yes or no	if yes, then				
<300' from continuously flowing watercourse or other significant watercourse?	NO	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	NO					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	NO					
<1000' from fresh water well or spring?	NO					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	NO					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	NO					
<100' from wetland?	NO					
within area overlying a subsurface mine	NO					
within an unstable area?	YES**					
within a 100-year floodplain?	NO					

**According to BLM Karst Potential Map. Please see additional Karst Survey attached

Table 3:
Summary of Sample Results

Matador Resources Company
Marbob State #001 (RP#RP-4873-0)

Sample ID	Sample Date	Depth (feet bgs)	Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg	Cl- Field Screening PPM
NMOCD Closure Criteria				50	10				2500	20000	
BH1	7/10/2018	1	Excavated	--	--	<5	<10	<50	<65.0	1100	--
	7/20/2018	1.5	Excavated	--	--	--	--	--	--	--	1021
	7/10/2018	2	Excavated	--	--	<5	<10	<50	<65.0	1000	--
	7/20/2018	2	In-Situ	<0.207	<0.023	<4.6	<9.8	<49	<63.4	650	--
	7/10/2018	3	In-Situ	--	--	<4.9	<9.9	<50	<64.8	1400	--
	7/20/2018	4	In-Situ	--	--	--	--	--	--	1300	--
	7/20/2018	6	In-Situ	<0.213	<0.023	<4.7	<9.9	<50	64.6	1100	--
BH2	11/5/2018	8	In-Situ	--	--	--	--	--	--	100	--
	7/20/2018	1.5	Excavated	<0.207	<0.023	--	--	--	<20	920	577
	7/10/2018	2	Excavated	--	--	<4.9	<10	<50	<64.8	740	230
	7/20/2018	6	In-Situ	--	--	--	--	--	<20	780	--
BH3	11/5/2018	12	In-Situ	--	--	--	--	--	--	140	--
	7/10/2018	1	Excavated	--	--	<4.8	<9.9	<50	<64.7	650	--
	7/20/2018	1.5	Excavated	--	--	--	--	--	--	--	3609
	7/10/2018	2	Excavated	--	--	<4.7	<9.9	<50	<64.6	480	--
	7/20/2018	4	Excavated	--	--	--	--	--	<20	2000	1705
	7/20/2018	6	In-Situ	--	--	--	--	--	--	1700	966
	7/20/2018	8	In-Situ	--	--	--	--	--	<20	1100	<237.4
BH4	11/5/2018	10	In-Situ	<0.096	<0.024	--	--	--	--	550	--
	7/20/2018	2	Excavated	<0.212	<0.024	--	--	--	<20	980	2667
	7/20/2018	3	Excavated	--	--	--	--	--	--	1500	--
	7/20/2018	4	Excavated	--	--	--	--	--	--	2700	8575
	7/20/2018	6	In-Situ	--	--	--	--	--	<20	2000	--
BH5	11/5/2018	8	In-Situ	--	--	--	--	--	--	340	--
	7/24/2018	3	Excavated	<0.224	<0.025	<5.0	<9.9	<50	<64.9	840	<237.4
BH6	11/5/2018	5	In-Situ	--	--	--	--	--	--	180	--
	7/24/2018	3	Excavated	--	--	--	--	--	--	--	5261
	7/24/2018	4	Excavated	<0.216	<0.024	<4.8	<10	<50	<64.8	2000	--
	7/24/2018	6	In-Situ	--	--	--	--	--	--	--	966
	11/5/2018	8	In-Situ	--	--	--	--	--	--	120	--
SW1	7/20/2018	--	sidewall	--	--	--	--	--	--	820	400
	11/5/2018	--	sidewall	--	--	--	--	--	--	67	--
SW2	7/20/2018	--	pipeline	--	--	--	--	--	--	5800	5177
	11/5/2018	--	deferral	--	--	--	--	--	--	2200	--
SW3	7/20/2018	--	sidewall	--	--	--	--	--	--	370	251
SW4	7/20/2018	--	sidewall	--	--	--	--	--	--	420	--
SW5	7/20/2018	--	sidewall	--	--	--	--	--	--	230	<237.4
SW6	7/24/2018	--	sidewall	--	--	--	--	--	--	800	564
	11/5/2018	--	sidewall	--	--	--	--	--	--	310	--
SW7	7/24/2018	--	sidewall	--	--	--	--	--	--	<30	<237.4
SW8	7/24/2018	--	sidewall	--	--	--	--	--	--	<30	<237.4
SW9	7/24/2018	--	sidewall	--	--	--	--	--	--	<30	<237.4
SW10	7/24/2018	--	sidewall	--	--	--	--	--	--	860	168
	11/5/2018	--	sidewall	--	--	--	--	--	--	<30	--
SW11	7/24/2018	--	sidewall	--	--	--	--	--	--	73	<237.4
SW12	7/24/2018	--	sidewall	--	--	--	--	--	--	<30	<237.4
SW13	7/24/2018	--	sidewall	--	--	--	--	--	--	<30	--
SW14	7/24/2018	--	sidewall	--	--	--	--	--	--	170	<237.4
SW15	7/24/2018	--	sidewall	--	--	--	--	--	--	<30	<237.4

"--" = Not Analyzed

* = per Reclamation Standard (19.15.29.13.D(1) NMAC)

APPENDIX A FORM C141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

JUL 23 2018

Form C-141
Revised April 3, 2017

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Copy to Appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

NAB1821141249 OPERATOR ☒ Initial Report ☐ Final Report

Name of Company Matador Resources Company 228437	Contact Casey Snow
Address 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	Telephone No. (972) 371-5439
Facility Name MARBOB STATE #001	Facility Type SWD

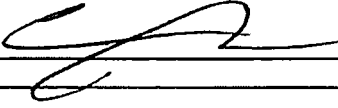
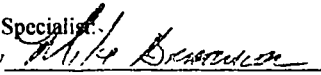
Surface Owner State of New Mexico	Mineral Owner State of New Mexico	API No. 30-015-26040
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	19	19S	29E	660	North	680	West	Eddy

Latitude 32.65182 Longitude 104.1077576 NAD83

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 326 bbls	Volume Recovered unknown
Source of Release Illegal dumping	Date and Hour of Occurrence 7/1/18	Date and Hour of Discovery 6/29/18 ~4:00p.m..
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Lucas Middleton(SMA)	Date and Hour 7/2/18 @ 5:22pm * email	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Equipment failed causing the secondary containment to fill until the fluids spilled over the front of the battery running east and pooled on pad and pasture. The location was shut down and a vacuum truck was on site vacuuming all standing fluids		
Describe Area Affected and Cleanup Action Taken.* The release occurred within the tank battery. Two areas one North and one south allow for the liquid to run over the berm and down in to the pad and pasture. No waterways were reached. SMA will delineate and remediate the site as per NMOCD rules and regulations.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.		
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Casey Snow	Approved by Environmental Specialist: Signed By 	
Title: Manager Regulatory, Environmental, & Safety	Approval Date: 7/24/18	Expiration Date: N/A
E-mail Address: csnow@matadorresources.com	Conditions of Approval: See attached	Attached: 228437
Date: 7/17/18	Phone: (972) 371-5439	

* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 7/23/18 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP4873 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 8/23/18. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C₆ thru C₃₆), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

District I
1625 N. French Dr., Hobbs, NM 88240
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1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Matador Resources	OGRID: 228937
Contact Name: John Hurt	Contact Telephone: 972-371-5200
Contact email: Jhurt@matadorresources.com	Incident # (assigned by OCD) 2RP4873/nAB1821141249
Contact mailing address: 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	

Location of Release Source

Latitude 32.65182Longitude -104.1077576
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Marbob State SWD #001	Site Type: SWD
Date Release Discovered: 6/29/18	API# (if applicable) 30-015-26040

Unit Letter	Section	Township	Range	County
A	19	19S	29E	EDDY

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 326	Volume Recovered (bbls) unknown
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

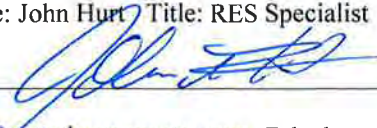
There was an equipment failure causing the secondary containment to fill and overflow over the front of the battery running east and pooled on the pad and pasture.

Incident ID	Page 298 of 380
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? >25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes. By SMA to NMOCD District II on 7/2/18 via email	

Initial Response

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

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why: The location was shut down and a vacuum truck was on site vacuuming all standing fluids.
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: John Hurt Title: RES Specialist Signature:  Date: 11/8/18 email: Jhurt@matadorresources.com Telephone: 972-371-5200
OCD Only Received by: _____ Date: _____

Incident ID	NAB1821141249 of 380
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?	131 (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

PLEASE SEE
APPENDIX C FOR
CAVE AND KARST
SURVEY

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.*

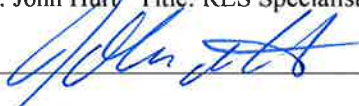
- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile 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.

Incident ID	NAB1821141249 of 380
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: John Hurt Title: RES Specialist

Signature: 

Date: 11/8/18

email: Jhurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Jocelyn Harimon

Date: 12/07/2022

Incident ID	NAB1821141249
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

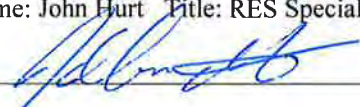
There is not a picture of the open excavation as the work was completed before NMAC – RP 19.15.29.5 NMAC, 8/14/2018 was put into effect

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

☒ Description of remediation activities

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

Printed Name: John Hurt Title: RES Specialist

Signature: 

Date: 11/8/18

email: Jhurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Jocelyn Harimon

Date: 12/07/2022

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B

NMOSE WELLS REPORT



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00646	CP	ED		1	1	4	07	19S	29E	583155	3615551	2565	199	150	49

Average Depth to Water: **150 feet**

Minimum Depth: **150 feet**

Maximum Depth: **150 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 583676.79

Northing (Y): 3613040.29

Radius: 3000

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.

11/8/18 11:30 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER

APPENDIX C

CAVE & KARST SURFACE EVALUATION

**SOUDER, MILLER & ASSOCIATES
201 S. HALAGUENO
CARLSBAD, NEW MEXICO, 88220**

**MATADOR PRODUCTION COMPANY, MARBOB STATE #001 SWD PAD
SECTION 19, TOWNSHIP 19 SOUTH, RANGE 29 EAST
EDDY COUNTY, NEW MEXICO
CAVE AND KARST SURFACE EVALUATION**

6 NOVEMBER 2018

Work was started and completed on 6 NOVEMBER. 2018.

The area in question was identified. The old spill area was determined. A 200 meter buffer was walked around the perimeter of the entire area and checked for cave and karst concerns. A thorough examination of the pad, which required a coordinated walking search of the entire old spill area was also completed looking for the possibility of any cave & karst concerns. No accounting as to migration of underground seepage, if any, was attempted.

Points were established using Garmin GPSMAP 64 hand-held GPS units with 13 S, NAD 83 as the datum. Point coordinates were determined by scaling the kmz provided.

50 meter wide grid lines were walked from East to West on 3613300N, 3613250N, 3613100N, 3613050N, 3612900N, & 3612850N starting at 583900E, the edge of an oil field road and ending at 583400E.

And

50 meter wide grid lines were walked from West to East on 3613200N, 3613150N, 3613300N, 3613250N, 3612800N, & 3612750N starting at 583400E and ending at 583900E, the edge of the oil field road.

This pattern thoroughly covers the pad and the “spill” area.

These coordinates were determined:

AREA CORNER COORDINATES

NW CORNER	583634E, 3613102N
SW CORNER	583628E, 3613030N
NE CORNER	583729E, 3613083N
SE CORNER	583723E, 3613021N
RUNOFF NW EDGE OF SPILL	583728E, 3613046N
RUNOFF NE EDGE OF SPILL	583721E, 3613023N
RUNOFF WEST SPILL EDGE	583747E, 3613006N
RUNOFF EAST SPILL EDGE	583751E, 3613010N
RUNOFF SW END OF SPILL	583771E, 3612913N
RUNOFF SE END OF SPILL	583784E, 3612914N

The 200 meter buffer around the affected area produced these findings:

FINDING	EUTM	NUTM	DESCRIPTION	TREND
#1	584990	3613250	POWER POLES	NORTH TO SOUTH
#2	584900	3613250	C/L ROAD	EAST TO WEST
#3	584722	3613250	C/L LEASE RD	SOUTH TO NORTH
#4	584426	3613250	ENTERPRISE BPL	EAST TO WEST
#5	584446	3613250	STEEL SURF LINE	EAST TO WEST
#6	584445	3613250	BPL	EAST TO WEST
#7	584394	3613150	ENTERPRISE BPL	EAST TO WEST
#8	584240	3613150	SURF POLY LINE	EAST TO WEST
#9	584488	3613237	TURKEY TRACK USGS ELEV MARKER	
#10	584537	3613154	MATADOR BPL	NORTH TO SOUTH
#11	584630	3613142	DCP SURFACE VALVE	
#12	584650	3613142	DCP BPL	NORTH TO SOUTH
#13	584650	3613152	DCP BPL	EAST TO WEST

#14	584627	3613145	BPL	NORTH TO SOUTH
#15	584729	3613151	C/L LEASE ROAD	NORTH TO SOUTH
#16	584873	3613146	HOLLY ENERGY BPL	N TO S
#17	584665	3613060	2" POLY BPL	
#18	584653	3613054	MATADOR BPL	NORTH TO SOUTH
#19	584643	3613054	PHILLIPS/DCP BPL	NORTH TO SOUTH
#20	584643	3613050	TEST & CONTROL PANEL	
#21	584635	3613051	MATADOR BPL	NORTH TO SOUTH
#22	584574	3613045	SURF 4" POLY LINE	NE TO SW
#23	584458	3613037	HOLLY ENERGY BPL	NW TO SE
#24	584564	3613943	BPL	NW TO SE
#25	584564	3613919	HOLLY ENERGY BPL	N TO S
#26	584604	3613810	SURFACE METERING VALVE	

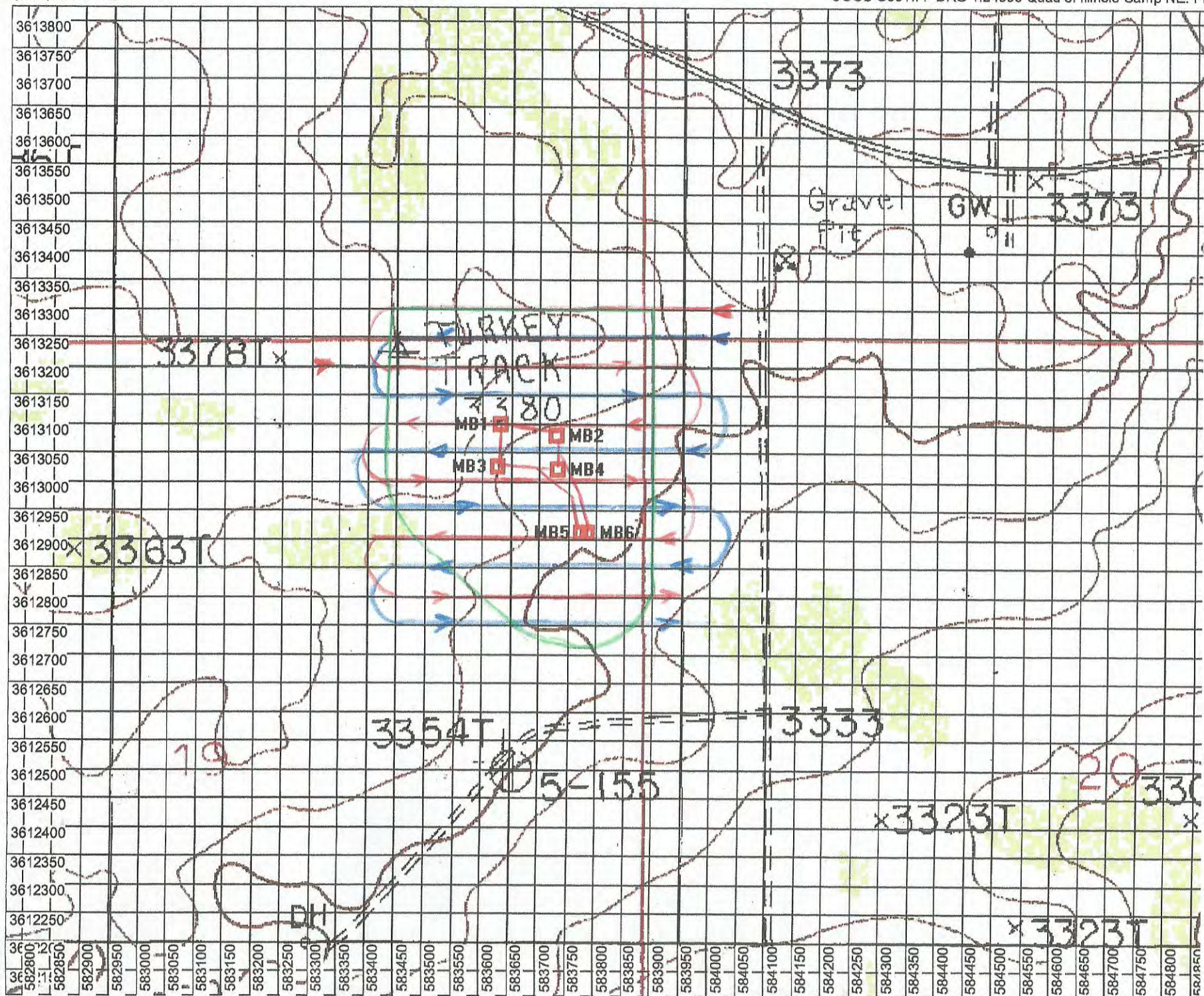
The area indicated on the kmz provided to us showing the spill area was thoroughly walked. No sign of the alleged spill could be found. No drainage to the subsurface was identified.

No cave or karst concerns were found within the 200 meter buffer zone.

This evaluation includes only features apparent on the surface and does not include features which may exist sub-surface.

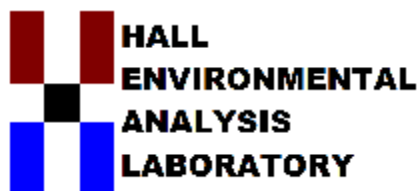
Photographs were taken and are included in this report.

David S. Belski
Cave and Karst Surface Evaluation



APPENDIX D

LABORATORY ANALYTICAL REPORTS



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 24, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Marbob State

OrderNo.: 1807714

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 7/13/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1807714

Date Reported: 7/24/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-1'

Project: Marbob State

Collection Date: 7/10/2018 2:05:00 PM

Lab ID: 1807714-001

Matrix: SOIL

Received Date: 7/13/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	1100	30		mg/Kg	20	7/18/2018 1:15:56 PM	39266
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: lrm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/17/2018 4:31:04 PM	39230
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/17/2018 4:31:04 PM	39230
Surr: DNOP	106	70-130		%Rec	1	7/17/2018 4:31:04 PM	39230
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/16/2018 6:13:39 PM	39201
Surr: BFB	95.6	15-316		%Rec	1	7/16/2018 6:13:39 PM	39201

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 1 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Analytical Report

Lab Order 1807714

Date Reported: 7/24/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-2'

Project: Marbob State

Collection Date: 7/10/2018 2:15:00 PM

Lab ID: 1807714-002

Matrix: SOIL

Received Date: 7/13/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	1000	30		mg/Kg	20	7/18/2018 1:28:20 PM	39266
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: lrm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/17/2018 5:39:31 PM	39230
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/17/2018 5:39:31 PM	39230
Surr: DNOP	105	70-130		%Rec	1	7/17/2018 5:39:31 PM	39230
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/16/2018 6:36:59 PM	39201
Surr: BFB	93.4	15-316		%Rec	1	7/16/2018 6:36:59 PM	39201

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Analytical Report

Lab Order 1807714

Date Reported: 7/24/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L1-3'

Project: Marbob State

Collection Date: 7/10/2018 2:20:00 PM

Lab ID: 1807714-003

Matrix: SOIL

Received Date: 7/13/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: SRM
Chloride	1400	75		mg/Kg	50	7/19/2018 7:26:04 PM	39266
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: lrm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/17/2018 6:02:29 PM	39230
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/17/2018 6:02:29 PM	39230
Surr: DNOP	100	70-130		%Rec	1	7/17/2018 6:02:29 PM	39230
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/16/2018 7:00:22 PM	39201
Surr: BFB	90.9	15-316		%Rec	1	7/16/2018 7:00:22 PM	39201

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Analytical Report

Lab Order 1807714

Date Reported: 7/24/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L2-2'

Project: Marbob State

Collection Date: 7/10/2018 2:45:00 PM

Lab ID: 1807714-004

Matrix: SOIL

Received Date: 7/13/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	740	30		mg/Kg	20	7/18/2018 2:42:48 PM	39266
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: lrm
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/17/2018 6:25:25 PM	39230
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/17/2018 6:25:25 PM	39230
Surr: DNOP	82.4	70-130		%Rec	1	7/17/2018 6:25:25 PM	39230
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/16/2018 7:23:43 PM	39201
Surr: BFB	89.9	15-316		%Rec	1	7/16/2018 7:23:43 PM	39201

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Analytical Report

Lab Order 1807714

Date Reported: 7/24/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-1'

Project: Marbob State

Collection Date: 7/10/2018 3:00:00 PM

Lab ID: 1807714-005

Matrix: SOIL

Received Date: 7/13/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	650	30		mg/Kg	20	7/18/2018 2:55:13 PM	39266
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/20/2018 11:51:33 AM	39230
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/20/2018 11:51:33 AM	39230
Surr: DNOP	107	70-130		%Rec	1	7/20/2018 11:51:33 AM	39230
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/16/2018 7:47:03 PM	39201
Surr: BFB	87.9	15-316		%Rec	1	7/16/2018 7:47:03 PM	39201

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

Analytical Report

Lab Order 1807714

Date Reported: 7/24/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: L3-2'

Project: Marbob State

Collection Date: 7/10/2018 3:07:00 PM

Lab ID: 1807714-006

Matrix: SOIL

Received Date: 7/13/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	480	30		mg/Kg	20	7/18/2018 3:07:38 PM	39266
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: lrm
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/17/2018 7:11:32 PM	39230
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/17/2018 7:11:32 PM	39230
Surr: DNOP	75.5	70-130		%Rec	1	7/17/2018 7:11:32 PM	39230
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/16/2018 8:10:22 PM	39201
Surr: BFB	89.7	15-316		%Rec	1	7/16/2018 8:10:22 PM	39201

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 6 of 9
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1807714
24-Jul-18

Client: Souder, Miller & Associates
Project: Marbob State

Sample ID	MB-39266	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	39266	RunNo:	52830					
Prep Date:	7/18/2018	Analysis Date:	7/18/2018	SeqNo:	1735435	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-39266	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	39266	RunNo:	52830					
Prep Date:	7/18/2018	Analysis Date:	7/18/2018	SeqNo:	1735436	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 7 of 9

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1807714

24-Jul-18

Client: Souder, Miller & Associates**Project:** Marbob State

Sample ID	MB-39230	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	39230	RunNo:	52741					
Prep Date:	7/16/2018	Analysis Date:	7/17/2018	SeqNo:	1732990	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		105	70	130			

Sample ID	1807714-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	L1-1'	Batch ID:	39230	RunNo:	52741					
Prep Date:	7/16/2018	Analysis Date:	7/17/2018	SeqNo:	1733532	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	49.85	0	96.7	62	120			
Surr: DNOP	4.7		4.985		94.7	70	130			

Sample ID	1807714-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	L1-1'	Batch ID:	39230	RunNo:	52741					
Prep Date:	7/16/2018	Analysis Date:	7/17/2018	SeqNo:	1733533	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.05	0	107	62	120	10.1	20	
Surr: DNOP	5.3		5.005		106	70	130	0	0	

Sample ID	LCS-39312	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	39312	RunNo:	52847					
Prep Date:	7/19/2018	Analysis Date:	7/20/2018	SeqNo:	1738036	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.5	70	130			

Sample ID	MB-39312	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	39312	RunNo:	52847					
Prep Date:	7/19/2018	Analysis Date:	7/20/2018	SeqNo:	1738037	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.5		10.00		95.4	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1807714

24-Jul-18

Client: Souder, Miller & Associates

Project: Marbob State

Sample ID	MB-39201	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	39201	RunNo:	52729					
Prep Date:	7/13/2018	Analysis Date:	7/16/2018	SeqNo:	1731622	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.0	15	316			

Sample ID	LCS-39201	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	39201	RunNo:	52729					
Prep Date:	7/13/2018	Analysis Date:	7/16/2018	SeqNo:	1731623	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	75.9	131			
Surr: BFB	980		1000		98.5	15	316			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

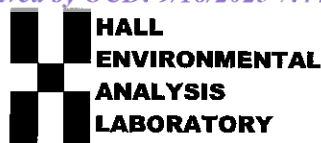
J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 9 of 9



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1807714

RcptNo: 1

Received By: Isaiah Ortiz

7/13/2018 8:50:00 AM

IO

Completed By: Ashley Gallegos

7/13/2018 11:01:39 AM

Ag

Reviewed By: AT 07/13/18

Labeled by: IO 7/13/18

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐

2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐5. Sample(s) in proper container(s)? Yes ☒ No ☐6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒10. Were any sample containers received broken? Yes ☐ No ☒11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐13. Is it clear what analyses were requested? Yes ☒ No ☐14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

IO

(<2 or >12 unless noted)

Adjusted?

7/13/18

Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐

eMail

☐

Phone

☐

Fax

☐

In Person

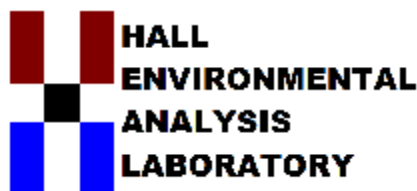
Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 03, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Marbob State 1

OrderNo.: 1807E45

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 9 sample(s) on 7/26/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 4-2

Project: Marbob State 1

Collection Date: 7/20/2018 11:00:00 AM

Lab ID: 1807E45-001

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/1/2018	39495
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	980	30		mg/Kg	20	8/1/2018 8:35:15 PM	39521
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/31/2018 4:08:17 PM	39455
Toluene	ND	0.047		mg/Kg	1	7/31/2018 4:08:17 PM	39455
Ethylbenzene	ND	0.047		mg/Kg	1	7/31/2018 4:08:17 PM	39455
Xylenes, Total	ND	0.094		mg/Kg	1	7/31/2018 4:08:17 PM	39455
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	7/31/2018 4:08:17 PM	39455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 4-4

Project: Marbob State 1

Collection Date: 7/20/2018 11:10:00 AM

Lab ID: 1807E45-002

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	2700	150		mg/Kg	100	8/2/2018 4:39:15 PM	39521

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 4-6

Project: Marbob State 1

Collection Date: 7/20/2018 11:20:00 AM

Lab ID: 1807E45-003

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/1/2018	39495
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	2000	75		mg/Kg	50	8/2/2018 4:51:40 PM	39521

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 4-3

Project: Marbob State 1

Collection Date: 7/20/2018 11:30:00 AM

Lab ID: 1807E45-004

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	1500	75		mg/Kg	50	8/2/2018 5:04:05 PM	39521

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 3-4

Project: Marbob State 1

Collection Date: 7/20/2018 11:40:00 AM

Lab ID: 1807E45-005

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/1/2018	39495
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	2000	75		mg/Kg	50	8/2/2018 5:16:30 PM	39521

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 3-6

Project: Marbob State 1

Collection Date: 7/20/2018 11:50:00 AM

Lab ID: 1807E45-006

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	1700	75		mg/Kg	50	8/2/2018 5:28:54 PM	39521

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 3-8

Project: Marbob State 1

Collection Date: 7/20/2018 12:00:00 PM

Lab ID: 1807E45-007

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/1/2018	39495
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	1100	30		mg/Kg	20	8/1/2018 10:39:21 PM	39521

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 2-1.5

Project: Marbob State 1

Collection Date: 7/20/2018 12:10:00 PM

Lab ID: 1807E45-008

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/1/2018	39495
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	920	30		mg/Kg	20	8/1/2018 10:51:45 PM	39521
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	7/31/2018 4:31:44 PM	39455
Toluene	ND	0.046		mg/Kg	1	7/31/2018 4:31:44 PM	39455
Ethylbenzene	ND	0.046		mg/Kg	1	7/31/2018 4:31:44 PM	39455
Xylenes, Total	ND	0.092		mg/Kg	1	7/31/2018 4:31:44 PM	39455
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	7/31/2018 4:31:44 PM	39455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1807E45

Date Reported: 8/3/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 2-6

Project: Marbob State 1

Collection Date: 7/20/2018 12:10:00 PM

Lab ID: 1807E45-009

Matrix: SOIL

Received Date: 7/26/2018 11:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH							Analyst: CLP
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	8/1/2018	39495
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	780	30		mg/Kg	20	8/1/2018 11:04:09 PM	39521

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1807E4503-Aug-18

Client: Souder, Miller & Associates
Project: Marbob State 1

Sample ID	MB-39521	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions						
Client ID:	PBS	Batch ID:	39521	RunNo:	53124						
Prep Date:	7/31/2018	Analysis Date:	8/1/2018	SeqNo:	1748764	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-39521	SampType:	LCS	TestCode:	EPA Method 300.0: Anions						
Client ID:	LCSS	Batch ID:	39521	RunNo:	53124						
Prep Date:	7/31/2018	Analysis Date:	8/1/2018	SeqNo:	1748765	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	94.3	90	110				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 10 of 12
D Sample Diluted Due to Matrix	E Value above quantitation range	
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
PQL Practical Quantitative Limit	RL Reporting Detection Limit	
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified	

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1807E45****03-Aug-18****Client:** Souder, Miller & Associates**Project:** Marbob State 1

Sample ID MB-39495	SampType: MBLK			TestCode: EPA Method 418.1: TPH						
Client ID: PBS	Batch ID: 39495			RunNo: 53125						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1747780		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID LCS-39495	SampType: LCS			TestCode: EPA Method 418.1: TPH						
Client ID: LCSS	Batch ID: 39495			RunNo: 53125						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1747781		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	130	20	100.0	0	127	84.7	129			

Sample ID LCSD-39495	SampType: LCSD			TestCode: EPA Method 418.1: TPH						
Client ID: LCSS02	Batch ID: 39495			RunNo: 53125						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1747782		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	120	20	100.0	0	124	84.7	129	2.05	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1807E45****03-Aug-18****Client:** Souder, Miller & Associates**Project:** Marbob State 1

Sample ID MB-39455	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 39455		RunNo: 53075							
Prep Date: 7/27/2018	Analysis Date: 7/30/2018		SeqNo: 1745932		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID LCS-39455	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 39455		RunNo: 53075							
Prep Date: 7/27/2018	Analysis Date: 7/30/2018		SeqNo: 1745933		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.5	77.3	128			
Toluene	0.97	0.050	1.000	0	96.5	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	94.8	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.7	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1807E45

RcptNo: 1

Received By: Isaiah Ortiz 7/26/2018 11:00:00 AM

Completed By: Ashley Gallegos 7/26/2018 5:53:13 PM

Reviewed By: Leah Barr 7/27/18

IC

AG

LB: ENM 7/30/18
Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐5. Sample(s) in proper container(s)? Yes ☒ No ☐6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒10. Were any sample containers received broken? Yes ☐ No ☒11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐13. Is it clear what analyses were requested? Yes ☒ No ☐14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH: 7/30/18
(≤ 2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:

Austin W

Date:

7/27/2018

By Whom:

Erin Melendrez

Via:

☒ eMail☐ Phone☐ Fax☐ In Person

Regarding:

Time differences between COC and labels

Client Instructions:

Use times listed on COC. -Per Melody

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

Chain-of-Custody Record

Client: SMA Carlsbad

Mailing Address:

Phone #:

Email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush

Project Name:

Mar bob State #1

Project #:

Project Manager:

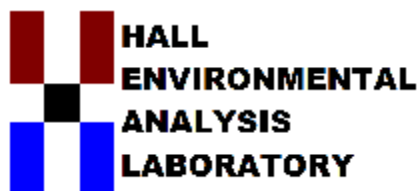
Sampler:

On Ice: ☒ Yes ☐ NoSample Temperature: 3.2-1.0 (C) 2.2

Container Type and #

Preservative Type

HEAL No. 51807E44001002003004005006007008009001002003</



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 06, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Marbob State 1

OrderNo.: 1807E44

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 9 sample(s) on 7/26/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1807E44

Date Reported: 8/6/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Lab Order: 1807E44

Project: Marbob State 1

Lab ID: 1807E44-001

Collection Date: 7/20/2018 9:00:00 AM

Client Sample ID: SW1

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	820	30		mg/Kg	20	7/30/2018 6:10:37 PM	39467
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Lab ID: 1807E44-002

Collection Date: 7/20/2018 9:10:00 AM

Client Sample ID: SW2

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	5800	300		mg/Kg	200	8/1/2018 11:04:27 AM	39467
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Lab ID: 1807E44-003

Collection Date: 7/20/2018 9:20:00 AM

Client Sample ID: SW3

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	370	30		mg/Kg	20	7/30/2018 6:35:26 PM	39467
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Lab ID: 1807E44-004

Collection Date: 7/20/2018 9:30:00 AM

Client Sample ID: SW4

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	420	30		mg/Kg	20	8/1/2018 7:08:22 PM	39521
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Lab ID: 1807E44-005

Collection Date: 7/20/2018 9:40:00 AM

Client Sample ID: SW5

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	230	30		mg/Kg	20	8/1/2018 7:45:36 PM	39521
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Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 1 of 8

Analytical Report

Lab Order: 1807E44

Date Reported: 8/6/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Lab Order: 1807E44

Project: Marbob State 1

Lab ID: 1807E44-007

Collection Date: 7/20/2018 10:00:00 AM

Client Sample ID: BH1-2

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	650	30		mg/Kg	20	8/1/2018 7:58:00 PM	39521
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/3/2018 10:55:39 AM	39509
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	8/3/2018 10:55:39 AM	39509
Surr: DNOP	94.1	50.6-138		%Rec	1	8/3/2018 10:55:39 AM	39509
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/1/2018 9:58:23 AM	39506
Surr: BFB	94.0	15-316		%Rec	1	8/1/2018 9:58:23 AM	39506
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	8/1/2018 9:58:23 AM	39506
Toluene	ND	0.046		mg/Kg	1	8/1/2018 9:58:23 AM	39506
Ethylbenzene	ND	0.046		mg/Kg	1	8/1/2018 9:58:23 AM	39506
Xylenes, Total	ND	0.092		mg/Kg	1	8/1/2018 9:58:23 AM	39506
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/1/2018 9:58:23 AM	39506

Lab ID: 1807E44-008

Collection Date: 7/20/2018 10:10:00 AM

Client Sample ID: BH1-4

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	1300	75		mg/Kg	50	8/2/2018 4:02:01 PM	39521

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

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Analytical Report

Lab Order: 1807E44

Date Reported: 8/6/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Lab Order: 1807E44

Project: Marbob State 1

Lab ID: 1807E44-009

Collection Date: 7/20/2018 10:20:00 AM

Client Sample ID: BH1-6

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	1100	30		mg/Kg	20	8/1/2018 8:22:50 PM	39521
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/3/2018 11:20:16 AM	39509
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/3/2018 11:20:16 AM	39509
Surr: DNOP	97.1	50.6-138		%Rec	1	8/3/2018 11:20:16 AM	39509
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/31/2018 3:44:50 PM	39455
Surr: BFB	93.1	15-316		%Rec	1	7/31/2018 3:44:50 PM	39455
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	7/31/2018 3:44:50 PM	39455
Benzene	ND	0.024		mg/Kg	1	7/31/2018 3:44:50 PM	39455
Toluene	ND	0.047		mg/Kg	1	7/31/2018 3:44:50 PM	39455
Ethylbenzene	ND	0.047		mg/Kg	1	7/31/2018 3:44:50 PM	39455
Xylenes, Total	ND	0.095		mg/Kg	1	7/31/2018 3:44:50 PM	39455
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/31/2018 3:44:50 PM	39455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1807E44****06-Aug-18****Client:** Souder, Miller & Associates**Project:** Marbob State 1

Sample ID MB-39467	SampType: mblk			TestCode: EPA Method 300.0: Anions						
Client ID: PBS	Batch ID: 39467			RunNo: 53064						
Prep Date: 7/28/2018	Analysis Date: 7/29/2018			SeqNo: 1745579	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID LCS-39467	SampType: lcs			TestCode: EPA Method 300.0: Anions						
Client ID: LCSS	Batch ID: 39467			RunNo: 53064						
Prep Date: 7/28/2018	Analysis Date: 7/29/2018			SeqNo: 1745580	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.3	90	110			

Sample ID MB-39521	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBS	Batch ID: 39521			RunNo: 53124						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1748764	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID LCS-39521	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSS	Batch ID: 39521			RunNo: 53124						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1748765	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1807E44

06-Aug-18

Client: Souder, Miller & Associates**Project:** Marbob State 1

Sample ID	MB-39489		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 39489		RunNo: 53063					
Prep Date:	7/30/2018		Analysis Date: 8/1/2018		SeqNo: 1747164		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5		10.00		85.0	50.6	138			

Sample ID	LCS-39489		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 39489		RunNo: 53063					
Prep Date:	7/30/2018		Analysis Date: 8/1/2018		SeqNo: 1747165		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		79.6	50.6	138			

Sample ID	MB-39509	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 39509			RunNo: 53063					
Prep Date:	7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1747957		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.6		10.00		75.9	50.6	138			

Sample ID	LCS-39509		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 39509		RunNo: 53063					
Prep Date:	7/31/2018		Analysis Date: 8/1/2018		SeqNo: 1747958		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.9	70	130			
Surr: DNOP	3.7		5.000		73.3	50.6	138			

Sample ID	LCS-39543		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 39543		RunNo: 53150					
Prep Date:	8/1/2018		Analysis Date: 8/3/2018		SeqNo: 1749789		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.4	50.6	138			

Sample ID	MB-39543	SampType:	MBLK			TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	39543			RunNo:	53150				
Prep Date:	8/1/2018	Analysis Date:	8/3/2018			SeqNo:	1749791	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	9.6		10.00		96.2	50.6	138				

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 5 of 8

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **1807E44****06-Aug-18****Client:** Souder, Miller & Associates**Project:** Marbob State 1

Sample ID MB-39455	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 39455			RunNo: 53075						
Prep Date: 7/27/2018	Analysis Date: 7/30/2018			SeqNo: 1745897			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.1	15	316			

Sample ID LCS-39455	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 39455			RunNo: 53075						
Prep Date: 7/27/2018	Analysis Date: 7/30/2018			SeqNo: 1745898			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	75.9	131			
Surr: BFB	1100		1000		108	15	316			

Sample ID MB-39506	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 39506			RunNo: 53110						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1748282			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		94.5	15	316			

Sample ID LCS-39506	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 39506			RunNo: 53110						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1748283			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	75.9	131			
Surr: BFB	1000		1000		103	15	316			

Sample ID 1807E44-007AMS	SampType: MS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BH1-2	Batch ID: 39506			RunNo: 53110						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1748285			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	5.0	24.95	0	133	77.8	128			S
Surr: BFB	1000		998.0		103	15	316			

Sample ID 1807E44-007AMSD	SampType: MSD			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: BH1-2	Batch ID: 39506			RunNo: 53110						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1748286			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1807E44

06-Aug-18

Client: Souder, Miller & Associates

Project: Marbob State 1

Sample ID	1807E44-007AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BH1-2	Batch ID:	39506	RunNo:	53110					
Prep Date:	7/31/2018	Analysis Date:	8/1/2018	SeqNo:	1748286	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.8	24.18	0	125	77.8	128	8.96	20	
Surr: BFB	1000		967.1		105	15	316	0	0	

Qualifiers:	
* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1807E44

06-Aug-18

Client: Souder, Miller & Associates**Project:** Marbob State 1

Sample ID MB-39455	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 39455			RunNo: 53075						
Prep Date: 7/27/2018	Analysis Date: 7/30/2018			SeqNo: 1745932			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID LCS-39455	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 39455			RunNo: 53075						
Prep Date: 7/27/2018	Analysis Date: 7/30/2018			SeqNo: 1745933			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.88	0.10	1.000	0	87.7	70.1	121			
Benzene	0.93	0.025	1.000	0	93.5	77.3	128			
Toluene	0.97	0.050	1.000	0	96.5	79.2	125			
Ethylbenzene	0.95	0.050	1.000	0	94.8	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	96.7	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID MB-39506	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batch ID: 39506			RunNo: 53110						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1748305			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID LCS-39506	SampType: LCS			TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batch ID: 39506			RunNo: 53110						
Prep Date: 7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1748306			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.4	77.3	128			
Toluene	0.95	0.050	1.000	0	94.7	79.2	125			
Ethylbenzene	0.93	0.050	1.000	0	93.1	80.7	127			
Xylenes, Total	2.9	0.10	3.000	0	95.0	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1807E44

RcptNo: 1

Received By: Isaiah Ortiz

7/26/2018 11:00:00 AM

IO

Completed By: Ashley Gallegos

7/26/2018 5:41:44 PM

AG

Reviewed By: LB

7/27/18

LB: ENM 7/30/18

Chain of Custody1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐2. How was the sample delivered? CourierLog In3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐5. Sample(s) in proper container(s)? Yes ☒ No ☐6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒10. Were any sample containers received broken? Yes ☐ No ☒11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐13. Is it clear what analyses were requested? Yes ☒ No ☐14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved bottles checked for pH:

<2 or 12 unless noted

Adjusted?

Checked by:

Special Handling (if applicable)15. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified: Austin W

Date: 7/27/2018

By Whom: Erin Melendrez

Via: ☒ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: Missing sample

Client Instructions: Remove sample from COC. -Per Melody

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

Chain-of-Custody Record

Client: SMHMailing Address: Carlsbad

Phone #: _____

email or Fax#: _____

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____☐ EDD (Type) _____

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Date

Time

Matrix

Sample Request ID

Turn-Around Time:

☐ Standard ☒ Rush

Project Name:

Mar bob State #1

Project #:

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ NoSample Temperature: 3.2-1.0 (cr) 2.2

Container Type and #

Preservative Type

HEAL No.

180TE44

BTEX + MTBE + TMB's (8021)

BTEX + MTBE + TPH (Gas only)

TPH 8015B (GRO / DRO / MRO)

TPH (Method 418.1)

EDB (Method 504.1)

PAH's (8310 or 8270 SIMS)

RCRA 8 Metals

Anions (F, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

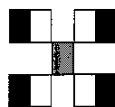
Air Bubbles (Y or N)

Remarks:

Mottler

Received by: SPK Date: 7/25/87 Time: 1300Received by: SPK Date: 7/26/87 Time: 1100Relinquished by: SPK Date: 7/26/87 Time: 1100Relinquished by: SPK Date: 7/26/87 Time: 1100Relinquished by: SPK Date: 7/26/87 Time: 1100Relinquished by: SPK Date: 7/26/87 Time: 1100Relinquished by: SPK Date: 7/26/87 Time: 1100Relinquished by: SPK Date: 7/26/87 Time: 1100Relinquished by: SPK Date: 7/26/87 Time: 1100Relinquished by: SPK Date: 7/26/87 Time: 1100

Analysis Request

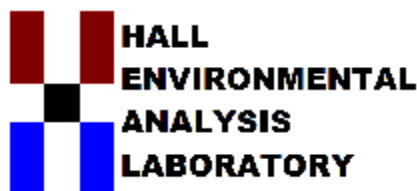


HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 06, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Marbob SWD

OrderNo.: 1807E43

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 12 sample(s) on 7/26/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order: 1807E43

Date Reported: 8/6/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Lab Order: 1807E43

Project: Marbob SWD

Lab ID: 1807E43-001

Collection Date: 7/24/2018 11:00:00 AM

Client Sample ID: SW6

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	800	30		mg/Kg	20	7/29/2018 3:47:27 PM	39466
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Lab ID: 1807E43-002

Collection Date: 7/24/2018 11:05:00 AM

Client Sample ID: SW7

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	ND	30		mg/Kg	20	7/29/2018 3:59:50 PM	39466
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Lab ID: 1807E43-003

Collection Date: 7/24/2018 11:10:00 AM

Client Sample ID: SW8

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	ND	30		mg/Kg	20	7/29/2018 7:43:13 PM	39467
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Lab ID: 1807E43-004

Collection Date: 7/24/2018 11:15:00 AM

Client Sample ID: SW9

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
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EPA METHOD 300.0: ANIONS

Analyst: MRA

Chloride	ND	30		mg/Kg	20	7/29/2018 8:20:27 PM	39467
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Lab ID: 1807E43-005

Collection Date: 7/24/2018 11:30:00 AM

Client Sample ID: SW10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	860	30		mg/Kg	20	7/30/2018 4:31:20 PM	39467
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Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Page 1 of 8

Analytical Report

Lab Order: 1807E43

Date Reported: 8/6/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Lab Order: 1807E43

Project: Marbob SWD

Lab ID: 1807E43-006

Collection Date: 7/24/2018 11:45:00 AM

Client Sample ID: SW11

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	73	30		mg/Kg	20	7/30/2018 4:43:44 PM	39467
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Lab ID: 1807E43-007

Collection Date: 7/24/2018 12:00:00 PM

Client Sample ID: SW12

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	ND	30		mg/Kg	20	7/30/2018 4:56:09 PM	39467
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Lab ID: 1807E43-008

Collection Date: 7/24/2018 12:15:00 PM

Client Sample ID: SW13

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	ND	30		mg/Kg	20	7/30/2018 5:08:33 PM	39467
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Lab ID: 1807E43-009

Collection Date: 7/24/2018 12:30:00 PM

Client Sample ID: SW14

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	170	30		mg/Kg	20	7/30/2018 5:45:47 PM	39467
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Lab ID: 1807E43-010

Collection Date: 7/24/2018 12:45:00 PM

Client Sample ID: SW15

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
----------	--------	-----	------	-------	----	---------------	----------

EPA METHOD 300.0: ANIONS

Analyst: JRR

Chloride	ND	30		mg/Kg	20	7/30/2018 5:58:12 PM	39467
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Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

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Analytical Report

Lab Order: 1807E43

Date Reported: 8/6/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Lab Order: 1807E43

Project: Marbob SWD

Lab ID: 1807E43-011

Collection Date: 7/24/2018 1:00:00 AM

Client Sample ID: BH6-4

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	2000	75		mg/Kg	50	8/2/2018 12:55:49 AM	39502
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/3/2018 10:06:35 AM	39509
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/3/2018 10:06:35 AM	39509
Surr: DNOP	89.7	50.6-138		%Rec	1	8/3/2018 10:06:35 AM	39509
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/31/2018 2:34:29 PM	39455
Surr: BFB	96.3	15-316		%Rec	1	7/31/2018 2:34:29 PM	39455
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	7/31/2018 2:34:29 PM	39455
Toluene	ND	0.048		mg/Kg	1	7/31/2018 2:34:29 PM	39455
Ethylbenzene	ND	0.048		mg/Kg	1	7/31/2018 2:34:29 PM	39455
Xylenes, Total	ND	0.096		mg/Kg	1	7/31/2018 2:34:29 PM	39455
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/31/2018 2:34:29 PM	39455

Lab ID: 1807E43-012

Collection Date: 7/24/2018 1:15:00 AM

Client Sample ID: BH5-3

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	840	30		mg/Kg	20	8/1/2018 12:09:57 AM	39502
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	12	9.9		mg/Kg	1	8/3/2018 10:31:08 AM	39509
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/3/2018 10:31:08 AM	39509
Surr: DNOP	110	50.6-138		%Rec	1	8/3/2018 10:31:08 AM	39509
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/31/2018 2:57:58 PM	39455
Surr: BFB	97.7	15-316		%Rec	1	7/31/2018 2:57:58 PM	39455
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	7/31/2018 2:57:58 PM	39455
Toluene	ND	0.050		mg/Kg	1	7/31/2018 2:57:58 PM	39455
Ethylbenzene	ND	0.050		mg/Kg	1	7/31/2018 2:57:58 PM	39455
Xylenes, Total	ND	0.099		mg/Kg	1	7/31/2018 2:57:58 PM	39455
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/31/2018 2:57:58 PM	39455

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Analytical Report

Lab Order: 1807E43

Date Reported: 8/6/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Project: Marbob SWD

Lab Order: 1807E43

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1807E43

06-Aug-18

Client: Souder, Miller & Associates**Project:** Marbob SWD

Sample ID	MB-39466		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 39466		RunNo: 53064					
Prep Date:	7/28/2018		Analysis Date: 7/29/2018		SeqNo: 1745549		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-39466		SampType: Ics		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 39466		RunNo: 53064					
Prep Date:	7/28/2018		Analysis Date: 7/29/2018		SeqNo: 1745550		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.1	90	110			

Sample ID	MB-39467		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 39467		RunNo: 53064					
Prep Date:	7/28/2018		Analysis Date: 7/29/2018		SeqNo: 1745579		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-39467		SampType: Ics		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 39467		RunNo: 53064					
Prep Date:	7/28/2018		Analysis Date: 7/29/2018		SeqNo: 1745580		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.3	90	110			

Sample ID	MB-39502		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 39502		RunNo: 53117					
Prep Date:	7/31/2018		Analysis Date: 7/31/2018		SeqNo: 1747523		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-39502		SampType: Ics		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 39502		RunNo: 53117					
Prep Date:	7/31/2018		Analysis Date: 7/31/2018		SeqNo: 1747524		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.7	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1807E43

06-Aug-18

Client: Souder, Miller & Associates**Project:** Marbob SWD

Sample ID	MB-39489		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 39489		RunNo: 53063					
Prep Date:	7/30/2018		Analysis Date: 8/1/2018		SeqNo: 1747164		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5		10.00		85.0	50.6	138			

Sample ID	LCS-39489		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 39489		RunNo: 53063					
Prep Date:	7/30/2018		Analysis Date: 8/1/2018		SeqNo: 1747165		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		79.6	50.6	138			

Sample ID	MB-39509	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID: 39509			RunNo: 53063					
Prep Date:	7/31/2018	Analysis Date: 8/1/2018			SeqNo: 1747957		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.6		10.00		75.9	50.6	138			

Sample ID	LCS-39509		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 39509		RunNo: 53063					
Prep Date:	7/31/2018		Analysis Date: 8/1/2018		SeqNo: 1747958		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.9	70	130			
Surr: DNOP	3.7		5.000		73.3	50.6	138			

Sample ID	LCS-39543		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 39543		RunNo: 53150					
Prep Date:	8/1/2018		Analysis Date: 8/3/2018		SeqNo: 1749789		Units: %Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		88.4	50.6	138			

Sample ID	MB-39543	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	39543		RunNo:	53150				
Prep Date:	8/1/2018	Analysis Date:	8/3/2018		SeqNo:	1749791	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		96.2	50.6	138			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1807E43

06-Aug-18

Client: Souder, Miller & Associates

Project: Marbob SWD

Sample ID	MB-39455	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	39455	RunNo:	53075					
Prep Date:	7/27/2018	Analysis Date:	7/30/2018	SeqNo:	1745897	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.1	15	316			

Sample ID	LCS-39455	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	39455	RunNo:	53075					
Prep Date:	7/27/2018	Analysis Date:	7/30/2018	SeqNo:	1745898	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	114	75.9	131			
Surr: BFB	1100		1000		108	15	316			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1807E43

06-Aug-18

Client: Souder, Miller & Associates

Project: Marbob SWD

Sample ID	MB-39455		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 39455		RunNo: 53075					
Prep Date:	7/27/2018		Analysis Date: 7/30/2018		SeqNo: 1745932		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	LCS-39455			SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSS			Batch ID:	39455		RunNo:	53075				
Prep Date:	7/27/2018			Analysis Date:	7/30/2018		SeqNo:	1745933		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	0.93	0.025	1.000	0	93.5	77.3	128					
Toluene	0.97	0.050	1.000	0	96.5	79.2	125					
Ethylbenzene	0.95	0.050	1.000	0	94.8	80.7	127					
Xylenes, Total	2.9	0.10	3.000	0	96.7	81.6	129					
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120					

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1807E43

RcptNo: 1

Received By: Isaiah Ortiz

7/26/2018 11:00:00 AM

Completed By: Ashley Gallegos

7/26/2018 5:37:43 PM

Reviewed By: *huh baco**shoko*labeled by: *ENM 7/27/18*

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels? Yes ☒ No ☐
(Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met? Yes ☒ No ☐
(If no, notify customer for authorization.)

of preserved bottles checked for pH: ENM 7/27/18
2 or 12 unless noted
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

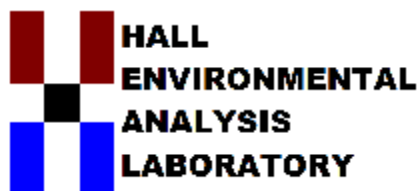
15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 12, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Marbob

OrderNo.: 1811330

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/7/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW1

Project: Marbob

Collection Date: 11/5/2018 3:24:00 PM

Lab ID: 1811330-001

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	67	30		mg/Kg	20	11/8/2018 2:32:46 PM	41426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Page 1 of 12

Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW2

Project: Marbob

Collection Date: 11/5/2018 2:00:00 PM

Lab ID: 1811330-002

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	2200	75		mg/Kg	50	11/8/2018 7:05:46 PM	41426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Page 2 of 12

Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW6

Project: Marbob

Collection Date: 11/5/2018 1:30:00 PM

Lab ID: 1811330-003

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	310	30		mg/Kg	20	11/8/2018 2:57:35 PM	41426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Page 3 of 12

Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: SW10

Project: Marbob

Collection Date: 11/5/2018 8:37:00 AM

Lab ID: 1811330-004

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	ND	30		mg/Kg	20	11/8/2018 3:09:59 PM	41426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 1-8

Project: Marbob

Collection Date: 11/5/2018 4:00:00 PM

Lab ID: 1811330-005

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	100	30		mg/Kg	20	11/8/2018 3:22:24 PM	41426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 2-12

Project: Marbob

Collection Date: 11/5/2018 3:07:00 PM

Lab ID: 1811330-006

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	140	30		mg/Kg	20	11/8/2018 3:34:49 PM	41426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 3-10

Project: Marbob

Collection Date: 11/5/2018 1:52:00 PM

Lab ID: 1811330-007

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	550	30		mg/Kg	20	11/8/2018 3:47:13 PM	41426
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/8/2018 9:40:08 AM	41412
Toluene	ND	0.048		mg/Kg	1	11/8/2018 9:40:08 AM	41412
Ethylbenzene	ND	0.048		mg/Kg	1	11/8/2018 9:40:08 AM	41412
Xylenes, Total	ND	0.096		mg/Kg	1	11/8/2018 9:40:08 AM	41412
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	11/8/2018 9:40:08 AM	41412

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 4-8

Project: Marbob

Collection Date: 11/5/2018 12:22:00 PM

Lab ID: 1811330-008

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: smb
Chloride	340	30		mg/Kg	20	11/8/2018 4:49:16 PM	41426

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 5-5

Project: Marbob

Collection Date: 11/5/2018 10:40:00 AM

Lab ID: 1811330-009

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	180	30		mg/Kg	20	11/9/2018 11:59:32 AM	41445

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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Analytical Report

Lab Order 1811330

Date Reported: 11/12/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates

Client Sample ID: BH 6-8

Project: Marbob

Collection Date: 11/5/2018 10:07:00 AM

Lab ID: 1811330-010

Matrix: SOIL

Received Date: 11/7/2018 8:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	120	30		mg/Kg	20	11/9/2018 12:11:56 PM	41445

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1811330

12-Nov-18

Client: Souder, Miller & Associates**Project:** Marbob

Sample ID	MB-41426		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	41426		RunNo:	55509				
Prep Date:	11/8/2018		Analysis Date:	11/8/2018		SeqNo:	1848594		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-41426		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 41426		RunNo: 55509					
Prep Date:	11/8/2018		Analysis Date: 11/8/2018		SeqNo: 1848595		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Sample ID	MB-41445		SampType: mblk		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 41445		RunNo: 55543					
Prep Date:	11/9/2018		Analysis Date: 11/9/2018		SeqNo: 1850235		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-41445		SampType: lcs		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 41445		RunNo: 55543					
Prep Date:	11/9/2018		Analysis Date: 11/9/2018		SeqNo: 1850236		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.4	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1811330

12-Nov-18

Client: Souder, Miller & Associates**Project:** Marbob

Sample ID MB-41412	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 41412		RunNo: 55519							
Prep Date: 11/7/2018	Analysis Date: 11/8/2018		SeqNo: 1848394	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID LCS-41412	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 41412		RunNo: 55519							
Prep Date: 11/7/2018	Analysis Date: 11/8/2018		SeqNo: 1848395	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.6	80	120			
Toluene	0.98	0.050	1.000	0	97.5	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.8	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID 1811330-007AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: BH 3-10	Batch ID: 41412		RunNo: 55519							
Prep Date: 11/7/2018	Analysis Date: 11/8/2018		SeqNo: 1848397	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.023	0.9294	0	109	68.5	133			
Toluene	1.1	0.046	0.9294	0	116	75	130			
Ethylbenzene	1.1	0.046	0.9294	0	118	79.4	128			
Xylenes, Total	3.4	0.093	2.788	0	120	77.3	131			
Surr: 4-Bromofluorobenzene	1.0		0.9294		113	80	120			

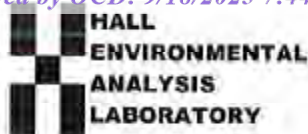
Sample ID 1811330-007AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: BH 3-10	Batch ID: 41412		RunNo: 55519							
Prep Date: 11/7/2018	Analysis Date: 11/8/2018		SeqNo: 1848398	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.024	0.9775	0	114	68.5	133	10.0	20	
Toluene	1.2	0.049	0.9775	0	121	75	130	9.16	20	
Ethylbenzene	1.2	0.049	0.9775	0	124	79.4	128	9.83	20	
Xylenes, Total	3.7	0.098	2.933	0	125	77.3	131	8.81	20	
Surr: 4-Bromofluorobenzene	1.0		0.9775		107	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

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Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87110
TEL: 505-345-3973 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1811330

ReptNo: 1

Received By: Victoria Zellar

11/7/2018 8:50:00 AM

Victoria Zellar

Completed By: Ashley Gallegos

11/7/2018 9:45:54 AM

Ashley

Reviewed By:

VVZ 11/7/18

Labeled by:

IO 11/7/18

Chain of Custody

1. Is Chain of Custody complete?

Yes ☒No ☐Not Present ☐

2. How was the sample delivered?

Courier

Log In

3. Was an attempt made to cool the samples?

Yes ☒No ☐NA ☐4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?Yes ☒No ☐NA ☐

5. Sample(s) in proper container(s)?

Yes ☒No ☐

6. Sufficient sample volume for indicated test(s)?

Yes ☒No ☐

7. Are samples (except VOA and ONG) properly preserved?

Yes ☒No ☐

8. Was preservative added to bottles?

Yes ☐No ☒NA ☐

9. VOA vials have zero headspace?

Yes ☐No ☐No VOA Vials ☒

10. Were any sample containers received broken?

Yes ☐No ☒

of preserved bottles checked for pH:

IO 11/7/18

(≤ 2 or > 12 unless noted)

11. Does paperwork match bottle labels?

Yes ☒No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody?

Yes ☒No ☐

Adjusted?

13. Is it clear what analyses were requested?

Yes ☒No ☐

14. Were all holding times able to be met?

Yes ☒No ☐

(If no, notify customer for authorization.)

Checked by:

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?

Yes ☐No ☐NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.6	Good	Yes			

Chain-of-Custody Record

Client: SMA Carsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard☐ Level 4 (Full Validation)

Accreditation:

☐ Az Compliance☐ NELAC☐ Other☐ EDD (Type)

Sampler: MRS

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including dry ice): 56

Date Time Matrix Sample Name

11/6/18 3:24 SW1

2:00 SW2

1:30 SW6

8:37 SW10

4:00 BH 1-8

3:07 BH 2-12

1:52 BH 3-10

12:22 BH 4-8

10:40 BH 5-5

10:07 BH 6-8*

Date Time Relinquished by:

11/6/18 1500

Date Time Relinquished by:

11/6/18 1900

Turn-Around Time:

☐ Standard☒ Rush 2 day

Project Name:

Marbob

Project #:

Project Manager:

Austin Weyant

Analysis Request

BTX

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

C, F, Br, NO₃, NO₂, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

Container Type and # 402

Preservative Type

HEAL No. 181133D

-001

-002

-003

-004

-005

-506

-007

-008

-009

-010

Remarks:

Matarador.

Received By: [Signature]

Date Time

11/6/18 1500

Received by: [Signature]

Date Time

11/7/18 8:50

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 507006

QUESTIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 507006
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAB1821141249
Incident Name	NAB1821141249 MARBOB STATE #001 @ 30-015-26040
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Well	[30-015-26040] MARBOB STATE #001

Location of Release Source

Please answer all the questions in this group.

Site Name	MARBOB STATE #001
Date Release Discovered	07/01/2018
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: Equipment Failure Other (Specify) Produced Water Released: 326 BBL Recovered: 0 BBL Lost: 326 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

Sante Fe Main Office
Phone: (505) 476-3441

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

QUESTIONS, Page 2

Action 507006

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 507006
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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: Jason Touchet Title: EHS Field Rep Email: jason.touchet@matadorresources.com Date: 09/18/2025
--	--

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

QUESTIONS, Page 3

Action 507006

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 507006
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
<i>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.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	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 ½ and 1 (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	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
<i>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.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	31000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	372
GRO+DRO (EPA SW-846 Method 8015M)	209
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>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>	
On what estimated date will the remediation commence	10/13/2025
On what date will (or did) the final sampling or liner inspection occur	10/24/2025
On what date will (or was) the remediation complete(d)	10/24/2025
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	10542
What is the estimated volume (in cubic yards) that will be remediated	196
<i>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.</i>	
<i>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.</i>	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 4

Action 507006

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 507006
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(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	<i>Not answered.</i>
OR which OCD approved well (API) will be used for off-site disposal	<i>Not answered.</i>
OR is the off-site disposal site, to be used, out-of-state	<i>Not answered.</i>
OR is the off-site disposal site, to be used, an NMED facility	Yes
What is the name of the NMED facility	Lea Land LLC
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	<i>Not answered.</i>
(In Situ) Soil Vapor Extraction	<i>Not answered.</i>
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	<i>Not answered.</i>
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	<i>Not answered.</i>
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	<i>Not answered.</i>
Ground Water Abatement pursuant to 19.15.30 NMAC	<i>Not answered.</i>
OTHER (Non-listed remedial process)	<i>Not answered.</i>
<i>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>	
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: Jason Touchet Title: EHS Field Rep Email: jason.touchet@matadorresources.com Date: 09/18/2025
<i>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.</i>	

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QUESTIONS, Page 5

Action 507006

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 507006
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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, Page 6

Action 507006

QUESTIONS (continued)

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 507006
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

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	No

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CONDITIONS

Action 507006

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 507006
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. The Variance Request for 400 ft2 floor confirmation sample size is approved. The release area will still need confirmation sidewall samples representing no more than 200 ft2. The Variance Request to use the Environmental Karst Study to ultimately determine the site as "stable" is approved. Any area designated as a "release extent" or "release area" will need to have confirmation samples conducted within the entire boundary of that area. Soil sample locations BH06 and BH07 need to be included in the release extent and must be fully vertically/horizontally delineated. The Variance Request to waive revegetation for the off-pad portion of the release area is denied. 19.15.29.13 NMAC outlines restoration, reclamation, and re-vegetation standards that must be met. Please include all of this documentation in the reclamation/revegetation report. All on and off-pad confirmation sample results must be included in the remediation closure report.	11/5/2025
rhamlet	All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards from Table 1 of the OCD Spill Rule for site receptor characterization/proven depth to water determination. Please make sure that the edge of the release extent is accurately defined. Sidewall/edge samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. The work will need to be completed in 90 days after the report has been reviewed.	11/5/2025