



October 27, 2023

New Mexico Energy Minerals and Natural Resources Department  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**Re: Closure Request  
Margarita 13 Federal Com #005H  
Incident Number nAPP2306635043  
Lea County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Matador Production Company (Matador), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities at the Margarita 13 Federal Com #005H (Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water onto the well pad. Based on field observations, field screening activities, and soil sample laboratory analytical results, Matador is submitting this *Closure Request*, describing Site assessment, excavation, and delineation activities that have occurred and requesting no further action for Incident Number nAPP2306635043.

## **SITE DESCRIPTION AND RELEASE SUMMARY**

The Site is located in Unit G, Section 13, Township 21 South, Range 32 East, in Lea County, New Mexico (32.4816612°, -103.6253408°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On March 1, 2023, a pipe connection on a temporary flowline from the minion tank failed, resulting in the release of approximately 21 barrels (bbls) of produced water onto the pad. Advance Energy Partners Hat Mesa LLC (Advance) reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on March 7, 2023, and submitted a Release Notification Form C-141 (Form C-141) on March 7, 2023. The release was assigned Incident Number nAPP2306635043 (Appendix A). Following the release, Matador acquired the Site from Advance and all remediation efforts and soil sampling activities were completed on behalf of Matador.

## **SITE CHARACTERIZATION AND CLOSURE CRITERIA**

The Site was characterized to assess applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well, CP 01877 POD1, located approximately 0.29 miles northwest of the Site. The well had a reported depth to groundwater greater than 105 feet below ground surface (bgs) and a total depth of 105 feet bgs. There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation that suggest the Site is conducive to shallow groundwater. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well record is included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is a wetland area, located approximately 1,737 feet 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 not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

## SITE ASSESSMENT ACTIVITIES

On August 4, 2023, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four preliminary soil samples (SS01 through SS04) were collected around the release extent at a depth of approximately 0 feet bgs to assess the lateral extent of the impacted soil. The preliminary soil samples were field screened for chloride utilizing the MOHR titration method. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation is included in Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice and transported under strict chain-of-custody procedures to Envirotech Analysis 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.

## DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

On August 24, 2023, Ensolum personnel were at the Site to oversee vertical delineation activities. Boreholes were advanced via hand auger within the release extent to assess the vertical extent of the release. Borehole (BH01) was advanced to a depth of 0.5 feet bgs and borehole BH02 was advanced to a depth of 2 feet bgs. Borehole (BH01) hit refusal at a depth of 0.5 feet bgs due to a layer of indurated

caliche. Delineation soil samples were collected from each borehole at depths ranging from 0 feet to 2 feet bgs. Soil from the delineation boreholes were field screened for chloride utilizing the MOHR titration method. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix D. The potholes and delineation soil sample locations are depicted on Figure 2.

Laboratory analytical results for all delineation soil samples indicated all COC concentrations were compliant with the Closure Criteria; however, laboratory analytical results for delineation soil samples BH01 and BH02 at 0-foot bgs indicated the chloride concentrations exceeded the reclamation requirement. While these two soil samples are on pad in an active production area, the proximity of the soil to the pasture and the ability to access the soil for reclaiming was taken into consideration. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included in Appendix E.

Starting on September 28, 2023, waste-containing soil was excavated from the release area as indicated by visible staining, field screening activities, and laboratory analytical results for delineation soil samples. Excavation activities were performed using a backhoe and belly dump trucks. The excavation occurred on the well pad near a transfer poly line. To direct excavation activities, Ensolum personnel screened soil for TPH and chloride utilizing a PetroFLAG® and Hach® chloride QuanTab® test strips, respectively.

Following removal of waste-containing soil, Ensolum personnel collected 5-point composite soil samples representing at least 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS21 were collected from the floor of the excavation at depths ranging from 2 feet to 2.5 feet bgs. Composite soil samples SW01 and SW04 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 2 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

The final excavation extent measured approximately 3,723 square feet. A total of approximately 350 cubic yards of waste-containing soil was removed during the excavation activities. The waste-containing soil was transported and properly disposed of at the R360 Facility in Carlsbad, New Mexico. After completion of confirmation sampling, the excavation areas were secured with fencing.

## LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for excavation floor soil samples (FS01 through FS17), (FS19 through FS21) and for sidewall soil samples (SW01 through SW04) indicated all COC concentrations were compliant with the Site Closure Criteria and with the reclamation requirement. Excavation floor sample FS18 exceeded the reclamation requirement for chloride at 2 feet bgs, however it was well below the Site Closure Criteria. Laboratory analytical results are summarized in Tables 1 through 3 and the complete laboratory analytical reports are included as Appendix E.

## CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the March 2023 release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COC concentrations were in compliance with the Site Closure Criteria. Additionally, laboratory analytical results indicated that COC concentrations for excavation soil samples (FS01 through FS17), (FS19 through FS21) and sidewall soil samples (SW01 through SW04) were all in compliance with the reclamation requirement. Excavation floor sample, FS18 exceeded the

reclamation requirement for chloride at 2 feet bgs, however it was below the Site Closure Criteria. Based on the soil sample analytical results, no further remediation was required. Matador will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

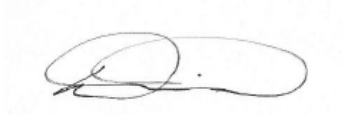
Excavation of waste-containing soil has mitigated adverse conditions at this Site. Depth to groundwater has been estimated to be greater than 105 feet bgs and no other sensitive receptors were identified near the release extent. Matador believes these remedial actions are protective of human health, the environment, and groundwater. As such, Matador respectfully requests closure for Incident Number nAPP2306635043.

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

Sincerely,  
**Ensolum, LLC**



Ashley Giovengo  
Senior Engineer



Daniel R. Moir, PG  
Senior Managing Geologist

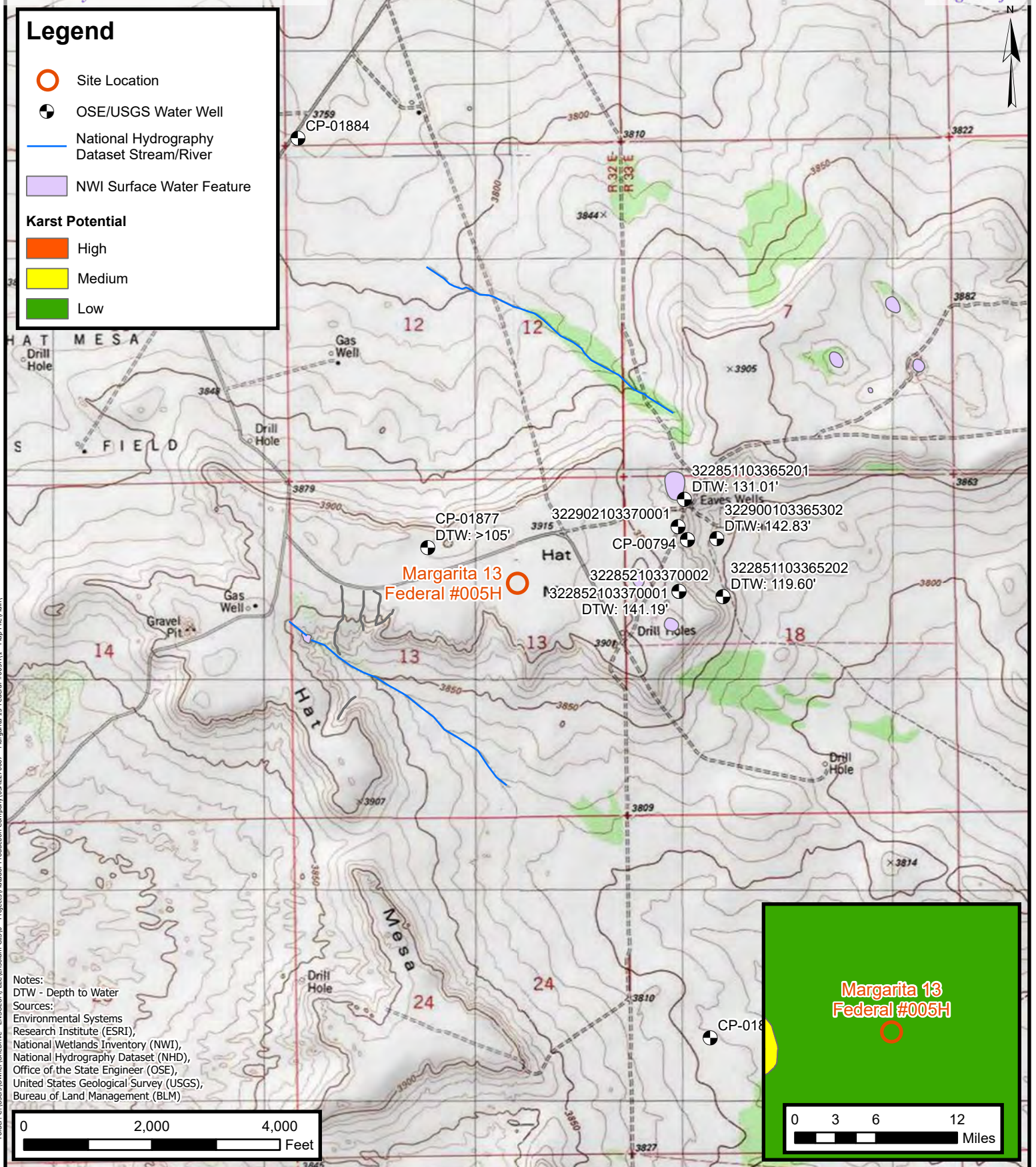
Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results (Delineation Soil Samples)
Table 2	Soil Sample Analytical Results (Excavation Soil Samples)
Table 3	Soil Sample Analytical Results (Sidewall Soil Samples)
Appendix A	Form C-141
Appendix B	Referenced Well Records
Appendix C	Photographic Log
Appendix D	Lithologic / Soil Sampling Logs
Appendix E	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix F	NMOCD Notifications





FIGURES



## Site Receptor Map

Matador Production Company  
Margarita 13 Federal #005H  
Incident Number: nAPP2306635043  
Unit G, Section 13, T 21S, R 32E  
New Mexico

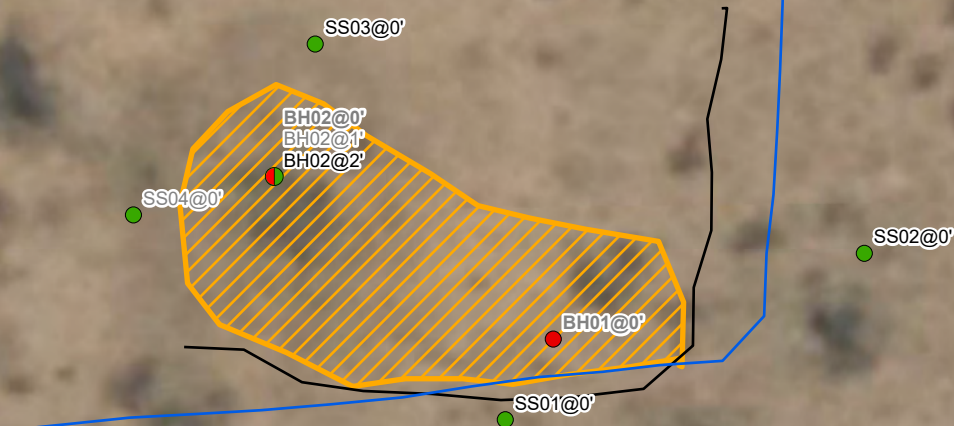
**FIGURE**

**1**



**Legend**

- Delineation Soil Sample in Compliance with NMOCD Closure Criteria
- Delineation Soil Sample with Concentrations Exceeding NMOCD Closure Criteria
- ● Delineation Soil Sample with Concentrations Previously Exceeding NMOCD Closure Criteria
- Water Utility
- Earthen Berm
- Release Extent

**Notes:**

Sample ID @ Depth Below Ground Surface.  
 Samples in bold indicate sample exceeded applicable closure criteria.  
 Grey text indicate soil sample was removed during excavation activities.

0 5 10 20 30 40  
 Feet

Sources: Environmental Systems Research Institute (ESRI)

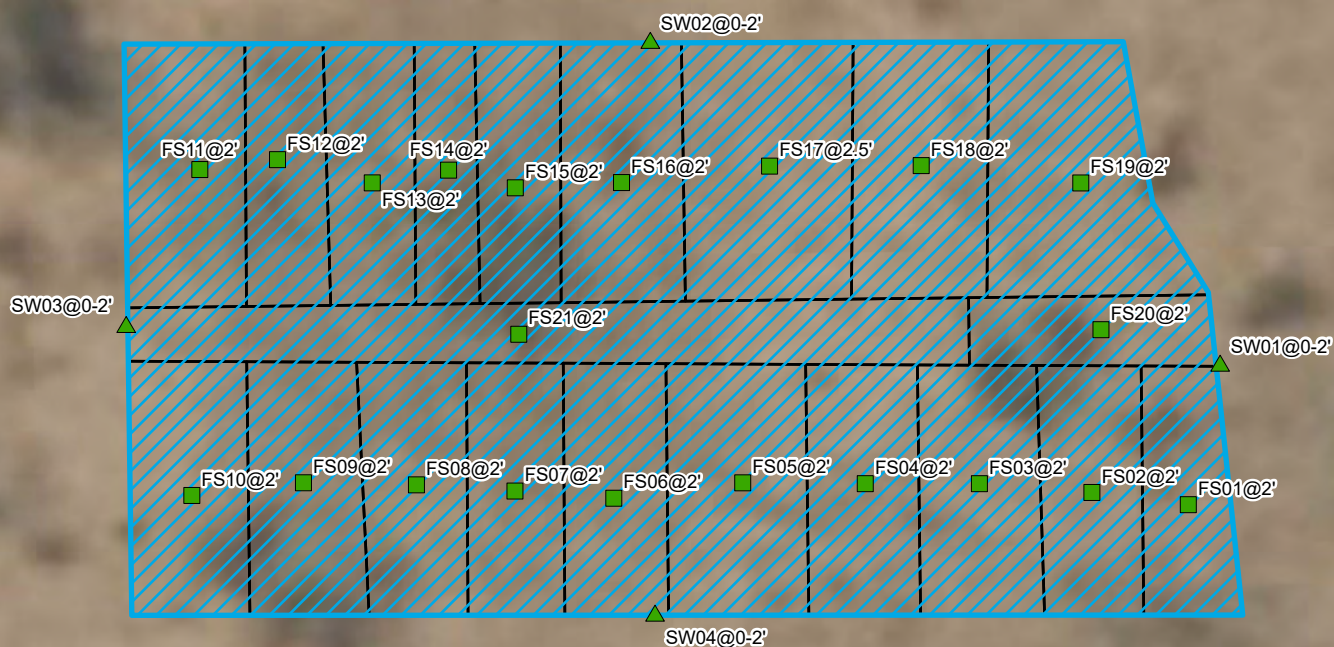
**Delineation Soil Sample Locations**

Matador Production Company  
 Margarita 13 Federal #005H  
 Incident Number: nAPP2306635043  
 Unit G, Section 13, T 21S, R 32E  
 Eddy County, New Mexico

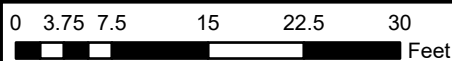
**FIGURE**  
**2**

**Legend**

- Confirmation Floor  
Sample in Compliance  
with Closure Criteria
- ▲ Confirmation Sidewall  
Sample in Compliance  
with Closure Criteria
- ▨ Excavation Extent
- Composite Sample  
Boundary



Notes:  
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



## Confirmation Soil Sample Locations

Matador Production Company  
Margarita 13 Federal #005H  
Incident Number: nAPP2306635043  
Unit G, Section 13, T 21S, R 32E  
Eddy County, New Mexico

**FIGURE**

**3**



TABLES

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**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
Margarita Federal 13 Com #005H  
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	20,000
Delineation Soil Samples										
SS01	08/04/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	175
SS02	08/04/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	42.3
SS03	08/04/2023	0	<0.025	<0.025	<20.0	26.0	<50.0	<20.0	26.0	463
SS04	08/04/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	176
BH01	08/04/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<b>9,990</b>
BH02	08/04/2023	0	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<b>11,400</b>
BH02	08/24/2023	1	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	<b>585</b>
BH02	08/24/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	20.5

**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

&lt;: 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





<b>TABLE 2</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> Margarita Federal 13 Com #005H 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)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
<b>Excavation Soil Samples</b>										
FS01	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	305
FS02	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	346
FS03	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	447
FS04	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	350
FS05	10/18/2023	3	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	545
FS06	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	185
FS07	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	26.0	255
FS08	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	170
FS09	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	313
FS10	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	336
FS11	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	357
FS12	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	225
FS13	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	237
FS14	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	225
FS15	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	225
FS16	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	344
FS17	10/18/2023	2.5	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	156
FS18	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	666
FS19	10/18/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	371
FS20	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	242
FS21	10/17/2023	2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	341

**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

&lt;: 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



**TABLE 3**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
 Margarita Federal 13 Com #005H  
 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)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
<b>Sidewall Soil Samples</b>										
SW01	10/17/2023	0-2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	169
SW02	10/17/2023	0-2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	144
SW03	10/17/2023	0-2	<0.025	<0.025	<20.0	26.0	<50.0	<20.0	26.0	189
SW04	10/18/2023	0-2	<0.025	<0.025	<20.0	<25.0	<50.0	<20.0	<20.0	46.9

**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

&lt;: 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

Form C-141

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District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	nAPP2306635043
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Advance Energy Partners Hat Mesa LLC	OGRID: 372417
Contact Name: Andrew Parker	Contact Telephone: 832-672-4700 (office)
Contact email: aparker@ameredev.com	Incident # nAPP2306635043
Contact mailing address: 11490 Westheimer Rd. Suite 950. Houston, TX 77077	

Location of Release Source

Latitude 32.4816612 \_\_\_\_\_ Longitude -103.6253408 \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Margarita 5H 20230301-1600-completions	Site Type Production Site
Date Release Discovered 03/01/2023	API# (if applicable) 30-025-47199

Unit Letter	Section	Township	Range	County
G	13	21S	32E	Lea

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 21	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

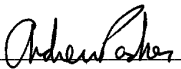
Cause of Release Pipe connection on temporary flowline along outlet from minion tank failed.

Incident ID	nAPP2306635043
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> 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:  Free liquids infiltrated into subsurface.	
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: <u>Andrew Parker</u>	Title: <u>Env. Scientist</u>
Signature: <u></u>	Date: <u>03/07/2023</u>
email: <u>aparker@ameredev.com</u>	Telephone: <u>970-570-9535</u>
<b><u>OCD Only</u></b>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>03/08/2023</u>

Incident ID	nAPP2306635043
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?	<u>&gt; 55</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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



Incident ID	nAPP2306635043
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: Clint Talley Title: EHS Supervisor

Signature: *Clint Talley* Date: 08/29/2023

email: Clinton.talley@matadorresources.com Telephone: 337-319-8398

**OCD Only**

Received by: Shelly Wells Date: 10/30/2023

Incident ID	nAPP2306635043
District RP	
Facility ID	
Application ID	

## Closure

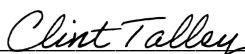
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Clint Talley Title: EHS Supervisor

Signature:  Date: 08/29/2023

email: Clinton.talley@matadorresources.com Telephone: 337-319-8398

### OCD Only

Received by: Shelly Wells Date: 10/30/2023

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



## APPENDIX B

### Referenced Well Records

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## WELL RECORD & LOG

# OFFICE OF THE STATE ENGINEER

**www.ose.state.nm.us**

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (TW-1)		WELL TAG ID NO. n/a		OSE FILE NO(S). <del>C-1877</del> CP-1877			
	WELL OWNER NAME(S) Advanced Energy Partners				PHONE (OPTIONAL) 832.672.4700			
	WELL OWNER MAILING ADDRESS 11490 Westheimer Rd. Stuit 950				CITY STATE ZIP Houston TX 77077			
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE		MINUTES 32	SECONDS 28	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84	
		LONGITUDE		103	37	47.48		W
	DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SE NE NW Sec. 13 T21S R32E							
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 09/21/2021		DRILLING ENDED 09/21/2021	DEPTH OF COMPLETED WELL (FT) temporary well material		BORE HOLE DEPTH (FT) 105	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD    ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		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)
	FROM	TO						
	0	105	±6.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

**FOR OSE INTERNAL USE**

WR-20 WELL RECORD &amp; LOG (Version 06/30/17)


FOR USE INTERNAL USE		WK-20 WELL RECORD & LOG (Version 06/30/17)	
FILE NO.	CP-1877	POD NO.	1
LOCATION	Men 215.32E. 13. 124	TRN NO.	699501
		WELL TAG ID NO.	—
			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	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				
	0	19	19	Caliche, consolidated with sand, White	Y    ✓ N	
	19	29	10	Sand, Fine-grained, poorly graded, Tan	Y    ✓ N	
	29	105	76	Sand, Fine-grained, poorly graded, Reddish Brown	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	
					Y    N	
					Y    N	
					Y    N	
					Y    N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm):    0.00	

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: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Carmelo Trevino, Cameron Pruitt	

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: <div style="text-align: right;">DSE DT OCT 22 2021 PM 2:45</div>	
	 <div style="text-align: center;">Jackie D. Atkins</div>	<div style="text-align: center;">10-22-2021</div>
SIGNATURE OF DRILLER / PRINT SIGNEE NAME		DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD &amp; LOG (Version 06/30/2017)

FILE NO. CP-1877	POD NO. 1	TRN NO. 699501
LOCATION Mon 215.32E.13.124	WELL TAG ID NO.	PAGE 2 OF 2



## APPENDIX C

### Photographic Log

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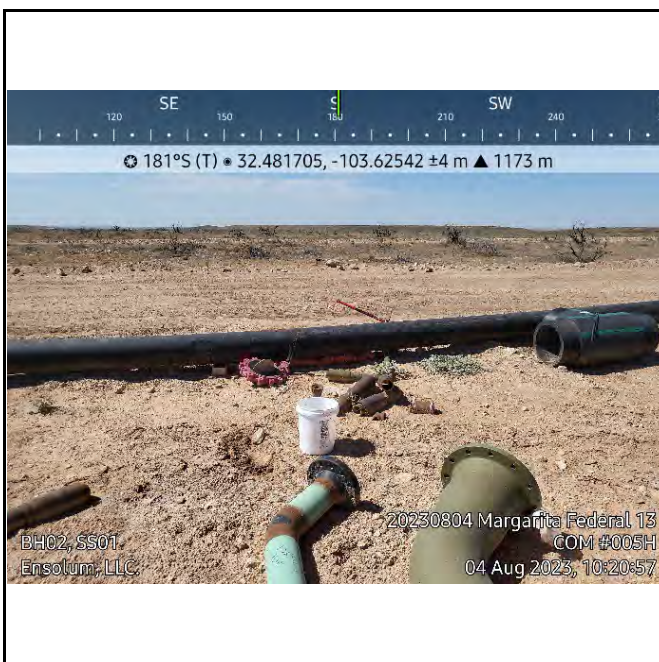


# Photographic Log

Matador Production Company  
Margarita 13 Federal Com #005H  
Incident Number: nAPP2306635043



Photograph 1 Date: 08/04/2023  
Description: Site Assessment / Delineation Sampling  
View: Southwest



Photograph 2 Date: 08/04/2023  
Description: Site Assessment / Delineation Sampling  
View: South



Photograph 3 Date: 08/04/2023  
Description: Site Assessment / Delineation Sampling  
View: West



Photograph 4 Date: 08/04/2023  
Description: Site Assessment / Delineation Sampling  
View: Northeast





# Photographic Log

Matador Production Company  
Margarita 13 Federal Com #005H  
Incident Number: nAPP2306635043



Photograph 5 Date: 08/24/2023  
Description: Vertical Delineation Sampling  
View: Southwest



Photograph 6 Date: 08/24/2023  
Description: Vertical Delineation Sampling  
View: East



Photograph 7 Date: 09/28/2023  
Description: Excavation  
View: West



Photograph 8 Date: 09/28/2023  
Description: Excavation  
View: East





### Photographic Log

Matador Production Company  
Margarita 13 Federal Com #005H  
Incident Number: nAPP2306635043



Photograph 9

Date: 09/29/2023

Description: Excavation

View: East



Photograph 10

Date: 10/17/2023

Description: Excavation

View: West



Photograph 11

Date: 10/17/2023

Description: Excavation

View: East



Photograph 12

Date: 10/18/2023

Description: Excavation


View: North




## APPENDIX D

### Lithologic Soil Sampling Logs

---

								Sample Name: BH01		Date: 8/24/23	
								Site Name: Margarita 13 Federal Com #015H			
								Incident Number: nAPP2306635043			
								Job Number: 03A2270007			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Cole Burton		Method: Hand Auger	
Coordinates: 32.48162, -103.62538								Hole Diameter: 3"		Total Depth: 0.5'	
Comments:											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D			Y	BH01	0	0	CCHE	Caliche: Medium brown sand, some caliche, staining			
						0.5	CCHE	Caliche Rock			
Total Depth 0.5' bgs.											

								Sample Name: BH02		Date: 8/24/23	
								Site Name: Margarita 13 Federal Com #015H			
								Incident Number: nAPP2306635043			
								Job Number: 03A2270007			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: Cole Burton		Method: Hand Auger	
Coordinates: 32.48168 , -103.62550								Hole Diameter: 3"		Total Depth: 2' 2"	
Comments: Field screening conducted with MOHR titration method for chloride, respectively. Chloride test performed with 1:1 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D			Y	BH02	0	0	CCHE	Caliche: Medium brown sand, some caliche, staining			
M	600			BH02	1	1	SP-SC	Sand & clay: Dark brown, High plasticity, highly cohesive			
M	400			BH02	2	2	SP-SC	Sand & clay: Medium brown, High plasticity, highly cohesive			
						2.2	CCHE	Caliche and rock			
Total Depth 2.2' bgs.											





## APPENDIX E

### 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: Margarita Federal 13 Com #005H

Work Order: E308046

Job Number: 23052-0001

Received: 8/8/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/11/23

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: 8/11/23

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



Project Name: Margarita Federal 13 Com #005H  
Workorder: E308046  
Date Received: 8/8/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/8/2023 8:15:00AM, under the Project Name: Margarita Federal 13 Com #005H.

The analytical test results summarized in this report with the Project Name: Margarita Federal 13 Com #005H 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Margarita Federal 13 Com #005H Project Number: 23052-0001 Project Manager: Ashley Giovengo	Reported: 08/11/23 09:48
---	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01-0'	E308046-01A	Soil	08/04/23	08/08/23	Glass Jar, 2 oz.
SS02-0'	E308046-02A	Soil	08/04/23	08/08/23	Glass Jar, 2 oz.
SS03-0'	E308046-03A	Soil	08/04/23	08/08/23	Glass Jar, 2 oz.
SS04-0'	E308046-04A	Soil	08/04/23	08/08/23	Glass Jar, 2 oz.
BH01-0'	E308046-05A	Soil	08/04/23	08/08/23	Glass Jar, 2 oz.
BH02-0'	E308046-06A	Soil	08/04/23	08/08/23	Glass Jar, 2 oz.



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
8/11/2023 9:48:44AM

SS01-0'

E308046-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2332023	
Benzene	ND	0.0250	1	08/08/23	08/09/23	
Ethylbenzene	ND	0.0250	1	08/08/23	08/09/23	
Toluene	ND	0.0250	1	08/08/23	08/09/23	
o-Xylene	ND	0.0250	1	08/08/23	08/09/23	
p,m-Xylene	ND	0.0500	1	08/08/23	08/09/23	
Total Xylenes	ND	0.0250	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene	101 %	70-130		08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4	96.4 %	70-130		08/08/23	08/09/23	
Surrogate: Toluene-d8	100 %	70-130		08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2332023	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene	101 %	70-130		08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4	96.4 %	70-130		08/08/23	08/09/23	
Surrogate: Toluene-d8	100 %	70-130		08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: KM		Batch: 2332031	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/23	08/08/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/23	08/08/23	
Surrogate: n-Nonane	96.5 %	50-200		08/08/23	08/08/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2332026	
Chloride	175	20.0	1	08/08/23	08/08/23	



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
8/11/2023 9:48:44AM

SS02-0'

E308046-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Benzene	ND	0.0250	1	08/08/23	08/09/23	
Ethylbenzene	ND	0.0250	1	08/08/23	08/09/23	
Toluene	ND	0.0250	1	08/08/23	08/09/23	
o-Xylene	ND	0.0250	1	08/08/23	08/09/23	
p,m-Xylene	ND	0.0500	1	08/08/23	08/09/23	
Total Xylenes	ND	0.0250	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene		100 %	70-130	08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4		97.0 %	70-130	08/08/23	08/09/23	
Surrogate: Toluene-d8		102 %	70-130	08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene		100 %	70-130	08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4		97.0 %	70-130	08/08/23	08/09/23	
Surrogate: Toluene-d8		102 %	70-130	08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2332031
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/23	08/08/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/23	08/08/23	
Surrogate: n-Nonane		102 %	50-200	08/08/23	08/08/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2332026
Chloride	42.3	20.0	1	08/08/23	08/08/23	



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
8/11/2023 9:48:44AM

SS03-0'

E308046-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Benzene	ND	0.0250	1	08/08/23	08/09/23	
Ethylbenzene	ND	0.0250	1	08/08/23	08/09/23	
Toluene	ND	0.0250	1	08/08/23	08/09/23	
o-Xylene	ND	0.0250	1	08/08/23	08/09/23	
p,m-Xylene	ND	0.0500	1	08/08/23	08/09/23	
Total Xylenes	ND	0.0250	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene		100 %	70-130	08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4		97.8 %	70-130	08/08/23	08/09/23	
Surrogate: Toluene-d8		101 %	70-130	08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene		100 %	70-130	08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4		97.8 %	70-130	08/08/23	08/09/23	
Surrogate: Toluene-d8		101 %	70-130	08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2332031
Diesel Range Organics (C10-C28)	26.0	25.0	1	08/08/23	08/08/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/23	08/08/23	
Surrogate: n-Nonane		106 %	50-200	08/08/23	08/08/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2332026
Chloride	463	20.0	1	08/08/23	08/08/23	





## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
8/11/2023 9:48:44AM

SS04-0'

E308046-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Benzene	ND	0.0250	1	08/08/23	08/09/23	
Ethylbenzene	ND	0.0250	1	08/08/23	08/09/23	
Toluene	ND	0.0250	1	08/08/23	08/09/23	
o-Xylene	ND	0.0250	1	08/08/23	08/09/23	
p,m-Xylene	ND	0.0500	1	08/08/23	08/09/23	
Total Xylenes	ND	0.0250	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene		100 %	70-130	08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4		96.8 %	70-130	08/08/23	08/09/23	
Surrogate: Toluene-d8		101 %	70-130	08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene		100 %	70-130	08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4		96.8 %	70-130	08/08/23	08/09/23	
Surrogate: Toluene-d8		101 %	70-130	08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2332031
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/23	08/08/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/23	08/08/23	
Surrogate: n-Nonane		110 %	50-200	08/08/23	08/08/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2332026
Chloride	176	20.0	1	08/08/23	08/08/23	



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
8/11/2023 9:48:44AM

BH01-0'

E308046-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Benzene	ND	0.0250	1	08/08/23	08/09/23	
Ethylbenzene	ND	0.0250	1	08/08/23	08/09/23	
Toluene	ND	0.0250	1	08/08/23	08/09/23	
o-Xylene	ND	0.0250	1	08/08/23	08/09/23	
p,m-Xylene	ND	0.0500	1	08/08/23	08/09/23	
Total Xylenes	ND	0.0250	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene		101 %	70-130	08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4		97.2 %	70-130	08/08/23	08/09/23	
Surrogate: Toluene-d8		99.6 %	70-130	08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene		101 %	70-130	08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4		97.2 %	70-130	08/08/23	08/09/23	
Surrogate: Toluene-d8		99.6 %	70-130	08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2332031
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/23	08/08/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/23	08/08/23	
Surrogate: n-Nonane		105 %	50-200	08/08/23	08/08/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2332026
Chloride	9990	400	20	08/08/23	08/09/23	



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
8/11/2023 9:48:44AM

BH02-0'

E308046-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Benzene	ND	0.0250	1	08/08/23	08/09/23	
Ethylbenzene	ND	0.0250	1	08/08/23	08/09/23	
Toluene	ND	0.0250	1	08/08/23	08/09/23	
o-Xylene	ND	0.0250	1	08/08/23	08/09/23	
p,m-Xylene	ND	0.0500	1	08/08/23	08/09/23	
Total Xylenes	ND	0.0250	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene	99.4 %	70-130		08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4	98.1 %	70-130		08/08/23	08/09/23	
Surrogate: Toluene-d8	101 %	70-130		08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2332023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/23	08/09/23	
Surrogate: Bromofluorobenzene	99.4 %	70-130		08/08/23	08/09/23	
Surrogate: 1,2-Dichloroethane-d4	98.1 %	70-130		08/08/23	08/09/23	
Surrogate: Toluene-d8	101 %	70-130		08/08/23	08/09/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2332031
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/23	08/08/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/23	08/08/23	
Surrogate: n-Nonane	111 %	50-200		08/08/23	08/08/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2332026
Chloride	11400	400	20	08/08/23	08/09/23	



## QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	8/11/2023 9:48:44AM

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

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

## Blank (2332023-BLK1)

Prepared: 08/08/23 Analyzed: 08/09/23

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: Bromofluorobenzene	0.506		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.483		0.500		96.6	70-130			
Surrogate: Toluene-d8	0.517		0.500		103	70-130			

## LCS (2332023-BS1)

Prepared: 08/08/23 Analyzed: 08/09/23

Benzene	2.51	0.0250	2.50		100	70-130			
Ethylbenzene	2.34	0.0250	2.50		93.5	70-130			
Toluene	2.41	0.0250	2.50		96.3	70-130			
o-Xylene	2.46	0.0250	2.50		98.4	70-130			
p,m-Xylene	4.85	0.0500	5.00		97.0	70-130			
Total Xylenes	7.31	0.0250	7.50		97.5	70-130			
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.5	70-130			
Surrogate: Toluene-d8	0.511		0.500		102	70-130			

## Matrix Spike (2332023-MS1)

Source: E308045-21

Prepared: 08/08/23 Analyzed: 08/09/23

Benzene	2.59	0.0250	2.50	ND	104	48-131			
Ethylbenzene	2.46	0.0250	2.50	ND	98.3	45-135			
Toluene	2.55	0.0250	2.50	ND	102	48-130			
o-Xylene	2.62	0.0250	2.50	ND	105	43-135			
p,m-Xylene	5.15	0.0500	5.00	ND	103	43-135			
Total Xylenes	7.77	0.0250	7.50	ND	104	43-135			
Surrogate: Bromofluorobenzene	0.512		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.491		0.500		98.2	70-130			
Surrogate: Toluene-d8	0.516		0.500		103	70-130			

## Matrix Spike Dup (2332023-MSD1)

Source: E308045-21

Prepared: 08/08/23 Analyzed: 08/09/23

Benzene	2.64	0.0250	2.50	ND	106	48-131	2.04	23	
Ethylbenzene	2.49	0.0250	2.50	ND	99.7	45-135	1.37	27	
Toluene	2.56	0.0250	2.50	ND	102	48-130	0.509	24	
o-Xylene	2.68	0.0250	2.50	ND	107	43-135	2.13	27	
p,m-Xylene	5.31	0.0500	5.00	ND	106	43-135	3.04	27	
Total Xylenes	7.98	0.0250	7.50	ND	106	43-135	2.74	27	
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.488		0.500		97.5	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			



## QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	8/11/2023 9:48:44AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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 (2332023-BLK1)

Prepared: 08/08/23 Analyzed: 08/09/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.506		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.483		0.500		96.6	70-130			
Surrogate: Toluene-d8	0.517		0.500		103	70-130			

## LCS (2332023-BS2)

Prepared: 08/08/23 Analyzed: 08/09/23

Gasoline Range Organics (C6-C10)	54.6	20.0	50.0		109	70-130			
Surrogate: Bromofluorobenzene	0.507		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			

## Matrix Spike (2332023-MS2)

Source: E308045-21

Prepared: 08/08/23 Analyzed: 08/09/23

Gasoline Range Organics (C6-C10)	58.8	20.0	50.0	ND	118	70-130			
Surrogate: Bromofluorobenzene	0.514		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.491		0.500		98.1	70-130			
Surrogate: Toluene-d8	0.517		0.500		103	70-130			

## Matrix Spike Dup (2332023-MSD2)

Source: E308045-21

Prepared: 08/08/23 Analyzed: 08/09/23

Gasoline Range Organics (C6-C10)	60.1	20.0	50.0	ND	120	70-130	2.17	20	
Surrogate: Bromofluorobenzene	0.515		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.469		0.500		93.7	70-130			
Surrogate: Toluene-d8	0.519		0.500		104	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	8/11/2023 9:48:44AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2332031-BLK1)					Prepared: 08/08/23 Analyzed: 08/08/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.3		50.0		109	50-200			

LCS (2332031-BS1)					Prepared: 08/08/23 Analyzed: 08/08/23				
Diesel Range Organics (C10-C28)	252	25.0	250		101	38-132			
Surrogate: n-Nonane	53.5		50.0		107	50-200			

Matrix Spike (2332031-MS1)					Source: E308041-01		Prepared: 08/08/23 Analyzed: 08/08/23		
Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132			
Surrogate: n-Nonane	50.3		50.0		101	50-200			

Matrix Spike Dup (2332031-MSD1)					Source: E308041-01		Prepared: 08/08/23 Analyzed: 08/08/23		
Diesel Range Organics (C10-C28)	272	25.0	250	ND	109	38-132	1.82	20	
Surrogate: n-Nonane	52.1		50.0		104	50-200			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Margarita Federal 13 Com #005H Project Number: 23052-0001 Project Manager: Ashley Giovengo	Reported:  8/11/2023 9:48:44AM
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Anions by EPA 300.0/9056A

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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<b>Blank (2332026-BLK1)</b>					Prepared: 08/08/23 Analyzed: 08/08/23				
Chloride	ND	20.0							
<b>LCS (2332026-BS1)</b>					Prepared: 08/08/23 Analyzed: 08/08/23				
Chloride	256	20.0	250		103	90-110			
<b>Matrix Spike (2332026-MS1)</b>					<b>Source: E308042-01</b>		Prepared: 08/08/23 Analyzed: 08/08/23		
Chloride	296	20.0	250	39.0	103	80-120			
<b>Matrix Spike Dup (2332026-MSD1)</b>					<b>Source: E308042-01</b>		Prepared: 08/08/23 Analyzed: 08/08/23		
Chloride	296	20.0	250	39.0	103	80-120	0.147	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:	Margarita Federal 13 Com #005H	
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	08/11/23 09:48

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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: Matador Production Company.		Bill To		Lab Use Only		TAT		EPA Program					
Project: Margarita Federal 13 Com #005H		Attention: Matador Production Company		Lab WO# E308046		Job Number 200460001		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Ashley Giovengo		Address: on file		Analysis and Method				x					
Address: 3122 National Parks Hwy		City, State, Zip:											RCRA
City, State, Zip: Carlsbad NM, 88220		Phone: (337)319-8398											
Phone: 575-988-0055		Email: clinton.talley@matadorresources.com											
Email: agiovengo@ensolum.com													
Report due by:													

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
9:25	8/4/2023	Soil	1 Jar	SS01 - 0'	1						x		
9:55	8/4/2023	Soil	1 Jar	SS02 - 0'	2						x		
9:27	8/4/2023	Soil	1 Jar	SS03 - 0'	3						x		
9:28	8/4/2023	Soil	1 Jar	SS04 - 0'	4						x		
10:17	8/4/2023	Soil	1 Jar	BH01 - 0'	5						x		
10:18	8/4/2023	Soil	1 Jar	BH02 - 0'	6						x		

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chadhmilton@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by:

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.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
<i>Michelle Cuyk</i>	8/7-23	11:11 am	<i>Michelle Cuyk</i>	8-7-23	1111	
<i>Michelle Cuyk</i>	8-7-23	1630	<i>Michelle Cuyk</i>	8-7-23	1730	
<i>Michelle Cuyk</i>	8-7-23	2345	<i>Michelle Cuyk</i>	8-8-23	8:15	

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 30 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: 8/8/2023 11:18:11AM

## 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:	08/08/23 08:15	Work Order ID:	E308046
Phone:	(972) 371-5200	Date Logged In:	08/07/23 17:38	Logged In By:	Alexa Michaels
Email:	agiovngo@ensolum.com	Due Date:	08/14/23 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? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

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

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

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? No

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: Margarita 13 Federal Com #015H

Work Order: E308201

Job Number: 23052-0001

Received: 8/28/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/1/23

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: 9/1/23

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



Project Name: Margarita 13 Federal Com #015H  
Workorder: E308201  
Date Received: 8/28/2023 10:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/28/2023 10:00:00AM, under the Project Name: Margarita 13 Federal Com #015H.

The analytical test results summarized in this report with the Project Name: Margarita 13 Federal Com #015H 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Margarita 13 Federal Com #015H Project Number: 23052-0001 Project Manager: Ashley Giovengo	Reported: 09/01/23 13:07
---	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH02-1'	E308201-01A	Soil	08/24/23	08/28/23	Glass Jar, 2 oz.
BH02-2'	E308201-02A	Soil	08/24/23	08/28/23	Glass Jar, 2 oz.





## Sample Data

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

Project Name: Margarita 13 Federal Com #015H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
9/1/2023 1:07:25PM

BH02-1'

E308201-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2335019	
Benzene	ND	0.0250	1	08/28/23	08/30/23	
Ethylbenzene	ND	0.0250	1	08/28/23	08/30/23	
Toluene	ND	0.0250	1	08/28/23	08/30/23	
o-Xylene	ND	0.0250	1	08/28/23	08/30/23	
p,m-Xylene	ND	0.0500	1	08/28/23	08/30/23	
Total Xylenes	ND	0.0250	1	08/28/23	08/30/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	93.9 %	70-130		08/28/23	08/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2335019	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/23	08/30/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	85.2 %	70-130		08/28/23	08/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: KM		Batch: 2335066	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/23	08/31/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/23	08/31/23	
<i>Surrogate: n-Nonane</i>						
	87.4 %	50-200		08/30/23	08/31/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2335037	
Chloride	585	20.0	1	08/29/23	08/31/23	



## Sample Data

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

Project Name: Margarita 13 Federal Com #015H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
9/1/2023 1:07:25PM

## BH02-2'

## E308201-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2335019
Benzene	ND	0.0250	1	08/28/23	08/30/23	
Ethylbenzene	ND	0.0250	1	08/28/23	08/30/23	
Toluene	ND	0.0250	1	08/28/23	08/30/23	
o-Xylene	ND	0.0250	1	08/28/23	08/30/23	
p,m-Xylene	ND	0.0500	1	08/28/23	08/30/23	
Total Xylenes	ND	0.0250	1	08/28/23	08/30/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	92.8 %	70-130		08/28/23	08/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2335019
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/28/23	08/30/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	85.0 %	70-130		08/28/23	08/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2335066
Diesel Range Organics (C10-C28)	ND	25.0	1	08/30/23	08/31/23	
Oil Range Organics (C28-C36)	ND	50.0	1	08/30/23	08/31/23	
<i>Surrogate: n-Nonane</i>						
	92.1 %	50-200		08/30/23	08/31/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2335037
Chloride	20.5	20.0	1	08/29/23	08/31/23	



## QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita 13 Federal Com #015H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	9/1/2023 1:07:25PM

## Volatile Organics by EPA 8021B

Analyst: IY

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 (2335019-BLK1)

Prepared: 08/28/23 Analyzed: 08/29/23

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	7.29		8.00		91.1	70-130			

## LCS (2335019-BS1)

Prepared: 08/28/23 Analyzed: 08/29/23

Benzene	4.20	0.0250	5.00		84.1	70-130			
Ethylbenzene	4.41	0.0250	5.00		88.2	70-130			
Toluene	4.45	0.0250	5.00		89.1	70-130			
o-Xylene	4.56	0.0250	5.00		91.2	70-130			
p,m-Xylene	9.15	0.0500	10.0		91.5	70-130			
Total Xylenes	13.7	0.0250	15.0		91.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.36		8.00		92.0	70-130			

## Matrix Spike (2335019-MS1)

Source: E308200-02

Prepared: 08/28/23 Analyzed: 08/29/23

Benzene	4.18	0.0250	5.00	ND	83.5	54-133			
Ethylbenzene	4.36	0.0250	5.00	ND	87.2	61-133			
Toluene	4.41	0.0250	5.00	ND	88.2	61-130			
o-Xylene	4.50	0.0250	5.00	ND	90.0	63-131			
p,m-Xylene	9.03	0.0500	10.0	ND	90.3	63-131			
Total Xylenes	13.5	0.0250	15.0	ND	90.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.32		8.00		91.5	70-130			

## Matrix Spike Dup (2335019-MSD1)

Source: E308200-02

Prepared: 08/28/23 Analyzed: 08/29/23

Benzene	4.52	0.0250	5.00	ND	90.4	54-133	7.91	20	
Ethylbenzene	4.75	0.0250	5.00	ND	95.0	61-133	8.54	20	
Toluene	4.79	0.0250	5.00	ND	95.8	61-130	8.28	20	
o-Xylene	4.89	0.0250	5.00	ND	97.8	63-131	8.33	20	
p,m-Xylene	9.83	0.0500	10.0	ND	98.3	63-131	8.50	20	
Total Xylenes	14.7	0.0250	15.0	ND	98.2	63-131	8.44	20	
Surrogate: 4-Bromochlorobenzene-PID	7.37		8.00		92.1	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita 13 Federal Com #015H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	9/1/2023 1:07:25PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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 (2335019-BLK1) Prepared: 08/28/23 Analyzed: 08/29/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.74		8.00		84.2	70-130			

LCS (2335019-BS2) Prepared: 08/28/23 Analyzed: 08/29/23

Gasoline Range Organics (C6-C10)	42.3	20.0	50.0		84.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.94		8.00		86.8	70-130			

Matrix Spike (2335019-MS2) Source: E308200-02 Prepared: 08/28/23 Analyzed: 08/29/23

Gasoline Range Organics (C6-C10)	43.7	20.0	50.0	ND	87.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.88		8.00		85.9	70-130			

Matrix Spike Dup (2335019-MSD2) Source: E308200-02 Prepared: 08/28/23 Analyzed: 08/29/23

Gasoline Range Organics (C6-C10)	44.9	20.0	50.0	ND	89.8	70-130	2.68	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.86		8.00		85.8	70-130			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Margarita 13 Federal Com #015H Project Number: 23052-0001 Project Manager: Ashley Giovengo	Reported:  9/1/2023 1:07:25PM
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Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2335066-BLK1)					Prepared: 08/30/23 Analyzed: 08/31/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.9		50.0		91.8	50-200			

LCS (2335066-BS1)					Prepared: 08/30/23 Analyzed: 08/31/23				
Diesel Range Organics (C10-C28)	234	25.0	250		93.5	38-132			
Surrogate: n-Nonane	44.7		50.0		89.4	50-200			

Matrix Spike (2335066-MS1)					Source: E308201-01		Prepared: 08/30/23 Analyzed: 08/31/23		
Diesel Range Organics (C10-C28)	215	25.0	250	ND	86.0	38-132			
Surrogate: n-Nonane	41.7		50.0		83.3	50-200			

Matrix Spike Dup (2335066-MSD1)					Source: E308201-01		Prepared: 08/30/23 Analyzed: 08/31/23		
Diesel Range Organics (C10-C28)	242	25.0	250	ND	96.9	38-132	12.0	20	
Surrogate: n-Nonane	44.5		50.0		88.9	50-200			



QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Margarita 13 Federal Com #015H Project Number: 23052-0001 Project Manager: Ashley Giovengo	Reported: 9/1/2023 1:07:25PM
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Anions by EPA 300.0/9056A

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 (2335037-BLK1)					Prepared: 08/29/23 Analyzed: 08/30/23				
Chloride	ND	20.0							
LCS (2335037-BS1)					Prepared: 08/29/23 Analyzed: 08/30/23				
Chloride	237	20.0	250		94.9	90-110			
Matrix Spike (2335037-MS1)					Source: E308201-01		Prepared: 08/29/23 Analyzed: 08/31/23		
Chloride	616	20.0	250	585	12.3	80-120			M2
Matrix Spike Dup (2335037-MSD1)					Source: E308201-01		Prepared: 08/29/23 Analyzed: 08/31/23		
Chloride	736	20.0	250	585	60.3	80-120	17.8	20	M2

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:	Margarita 13 Federal Com #015H	
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	09/01/23 13:07

- M2Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- NDAnalyte NOT DETECTED at or above the reporting limit
- NRNot Reported
- RPDRelative Percent Difference
- DNIDid Not Ignite

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: Matador Production Company.		<b>Bill To</b>		<b>Lab Use Only</b>		<b>TAT</b>		<b>EPA Program</b>	
Project: Margarita 13 Federal Com #015H		Attention: Matador Production Company		Lab WO#		1D 2D 3D		CWA SDWA	
Project Manager: Ashley Gioveno		Address: on file		Job Number		Standard			
Address: 3122 National Parks Hwy		City, State, Zip:		E308201 23052-0001		x			
City, State, Zip: Carlsbad NM, 88220		Phone: (337)319-8398		Analysis and Method				RCRA	
Phone: 575-988-0055		Email: clinton.talley@matadorresources.com						State	
Email: agioveno@ensolum.com								NM CO UT AZ TX	
Report due by:								x	

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
10:19	8/24/2023	Soil	1 Jar	BH02 - 1'	1						X		
10:23	8/24/2023	Soil	1 Jar	BH02 - 2'	2						X		

**Additional Instructions:** Please CC: cburton@ensolum.com, agioveno@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.						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.					
Sampled by:						Lab Use Only					
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N					
<i>Michelle Camp</i>	8-25-23	7:05	<i>Michelle Camp</i>	8-25-23	0705						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3					
<i>Michelle Camp</i>	8-25-23	1700	<i>Michelle Camp</i>	8-25-23	1700						
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	AVG Temp °C					
<i>Michelle Camp</i>	8-25-23	2345	<i>Michelle Camp</i>	8/28/23	10:00	4					
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 30 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: 8/28/2023 11:59:50AM

## 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:	08/28/23 10:00	Work Order ID:	E308201
Phone:	(972) 371-5200	Date Logged In:	08/28/23 08:59	Logged In By:	Alexa Michaels
Email:	agiovngo@ensolum.com	Due Date:	09/01/23 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? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

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

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

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: Margarita Federal 13 Com #005H

Work Order: E310009

Job Number: 23052-0001

Received: 10/3/2023

Revision: 2

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
10/9/23

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: 10/9/23

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



Project Name: Margarita Federal 13 Com #005H  
Workorder: E310009  
Date Received: 10/3/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/3/2023 8:15:00AM, under the Project Name: Margarita Federal 13 Com #005H.

The analytical test results summarized in this report with the Project Name: Margarita Federal 13 Com #005H 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Margarita Federal 13 Com #005H Project Number: 23052-0001 Project Manager: Ashley Giovengo	Reported: 10/09/23 11:53
---	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS08 - 1'	E310009-01A	Soil	09/29/23	10/03/23	Glass Jar, 4 oz.
FS13 - 1'	E310009-02A	Soil	09/29/23	10/03/23	Glass Jar, 4 oz.



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
10/9/2023 11:53:43AM

FS08 - 1'

E310009-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2340046	
Benzene	ND	0.0250	1	10/03/23	10/05/23	
Ethylbenzene	ND	0.0250	1	10/03/23	10/05/23	
Toluene	ND	0.0250	1	10/03/23	10/05/23	
o-Xylene	ND	0.0250	1	10/03/23	10/05/23	
p,m-Xylene	ND	0.0500	1	10/03/23	10/05/23	
Total Xylenes	ND	0.0250	1	10/03/23	10/05/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	98.6 %	70-130		10/03/23	10/05/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2340046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/03/23	10/05/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	94.3 %	70-130		10/03/23	10/05/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: KM		Batch: 2340060	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/04/23	10/06/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/04/23	10/06/23	
<i>Surrogate: n-Nonane</i>						
	105 %	50-200		10/04/23	10/06/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2340074	
Chloride	358	20.0	1	10/04/23	10/05/23	



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
10/9/2023 11:53:43AM

FS13 - 1'

E310009-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2340046
Benzene	ND	0.0250	1	10/03/23	10/05/23	
Ethylbenzene	ND	0.0250	1	10/03/23	10/05/23	
Toluene	ND	0.0250	1	10/03/23	10/05/23	
o-Xylene	ND	0.0250	1	10/03/23	10/05/23	
p,m-Xylene	ND	0.0500	1	10/03/23	10/05/23	
Total Xylenes	ND	0.0250	1	10/03/23	10/05/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.6 %	70-130		10/03/23	10/05/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2340046
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/03/23	10/05/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	92.9 %	70-130		10/03/23	10/05/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: KM		Batch: 2340060
Diesel Range Organics (C10-C28)	ND	25.0	1	10/04/23	10/05/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/04/23	10/05/23	
<i>Surrogate: n-Nonane</i>						
	100 %	50-200		10/04/23	10/05/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2340074
Chloride	369	20.0	1	10/04/23	10/05/23	



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/9/2023 11:53:43AM

Volatile Organics by EPA 8021B

Analyst: IY

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 (2340046-BLK1) Prepared: 10/03/23 Analyzed: 10/05/23

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	7.63		8.00		95.4	70-130			

LCS (2340046-BS1) Prepared: 10/03/23 Analyzed: 10/05/23

Benzene	5.16	0.0250	5.00		103	70-130			
Ethylbenzene	5.08	0.0250	5.00		102	70-130			
Toluene	5.15	0.0250	5.00		103	70-130			
o-Xylene	5.11	0.0250	5.00		102	70-130			
p,m-Xylene	10.3	0.0500	10.0		103	70-130			
Total Xylenes	15.5	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.74		8.00		96.7	70-130			

Matrix Spike (2340046-MS1) Source: E310011-21 Prepared: 10/03/23 Analyzed: 10/05/23

Benzene	5.12	0.0250	5.00	ND	102	54-133			
Ethylbenzene	5.06	0.0250	5.00	ND	101	61-133			
Toluene	5.11	0.0250	5.00	ND	102	61-130			
o-Xylene	5.07	0.0250	5.00	ND	101	63-131			
p,m-Xylene	10.3	0.0500	10.0	ND	103	63-131			
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.67		8.00		95.9	70-130			

Matrix Spike Dup (2340046-MSD1) Source: E310011-21 Prepared: 10/03/23 Analyzed: 10/05/23

Benzene	5.30	0.0250	5.00	ND	106	54-133	3.48	20	
Ethylbenzene	5.26	0.0250	5.00	ND	105	61-133	3.78	20	
Toluene	5.31	0.0250	5.00	ND	106	61-130	3.77	20	
o-Xylene	5.26	0.0250	5.00	ND	105	63-131	3.66	20	
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131	3.72	20	
Total Xylenes	16.0	0.0250	15.0	ND	106	63-131	3.70	20	
Surrogate: 4-Bromochlorobenzene-PID	7.70		8.00		96.3	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/9/2023 11:53:43AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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 (2340046-BLK1) Prepared: 10/03/23 Analyzed: 10/05/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.55		8.00		94.4	70-130			

LCS (2340046-BS2) Prepared: 10/03/23 Analyzed: 10/05/23

Gasoline Range Organics (C6-C10)	50.9	20.0	50.0		102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		8.00		94.3	70-130			

Matrix Spike (2340046-MS2) Source: E310011-21 Prepared: 10/03/23 Analyzed: 10/05/23

Gasoline Range Organics (C6-C10)	53.2	20.0	50.0	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		8.00		94.1	70-130			

Matrix Spike Dup (2340046-MSD2) Source: E310011-21 Prepared: 10/03/23 Analyzed: 10/05/23

Gasoline Range Organics (C6-C10)	52.9	20.0	50.0	ND	106	70-130	0.496	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.41		8.00		92.7	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/9/2023 11:53:43AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2340060-BLK1)					Prepared: 10/04/23 Analyzed: 10/05/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.6		50.0		103	50-200			

LCS (2340060-BS1)					Prepared: 10/04/23 Analyzed: 10/05/23				
Diesel Range Organics (C10-C28)	241	25.0	250		96.5	38-132			
Surrogate: n-Nonane	52.4		50.0		105	50-200			

Matrix Spike (2340060-MS1)					Source: E310013-01		Prepared: 10/04/23 Analyzed: 10/05/23		
Diesel Range Organics (C10-C28)	372	50.0	250	95.1	111	38-132			
Surrogate: n-Nonane	50.9		50.0		102	50-200			

Matrix Spike Dup (2340060-MSD1)					Source: E310013-01		Prepared: 10/04/23 Analyzed: 10/05/23		
Diesel Range Organics (C10-C28)	352	50.0	250	95.1	103	38-132	5.38	20	
Surrogate: n-Nonane	51.4		50.0		103	50-200			





QC Summary Data

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Margarita Federal 13 Com #005H Project Number: 23052-0001 Project Manager: Ashley Giovengo	Reported:  10/9/2023 11:53:43AM
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Anions by EPA 300.0/9056A

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 (2340074-BLK1)					Prepared: 10/04/23 Analyzed: 10/05/23				
Chloride	ND	20.0							
LCS (2340074-BS1)					Prepared: 10/04/23 Analyzed: 10/05/23				
Chloride	249	20.0	250		99.6	90-110			
Matrix Spike (2340074-MS1)					Source: E309250-01		Prepared: 10/04/23 Analyzed: 10/05/23		
Chloride	1010	20.0	250	780	91.2	80-120			
Matrix Spike Dup (2340074-MSD1)					Source: E309250-01		Prepared: 10/04/23 Analyzed: 10/05/23		
Chloride	1040	20.0	250	780	104	80-120	3.11	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:	Margarita Federal 13 Com #005H	
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/09/23 11:53

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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

## Envirotech Analytical Laboratory

Printed: 10/3/2023 10:52:11AM

## 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:	10/03/23 08:15	Work Order ID:	E310009
Phone:	(972) 371-5200	Date Logged In:	10/03/23 09:38	Logged In By:	Caitlin Mars
Email:	agiovngo@ensolum.com	Due Date:	10/09/23 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? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

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

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

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: Margarita Federal 13 Com #005H

Work Order: E310010

Job Number: 23052-0001

Received: 10/3/2023

Revision: 2

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
10/10/23

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: 10/10/23

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



Project Name: Margarita Federal 13 Com #005H  
Workorder: E310010  
Date Received: 10/3/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/3/2023 8:15:00AM, under the Project Name: Margarita Federal 13 Com #005H.

The analytical test results summarized in this report with the Project Name: Margarita Federal 13 Com #005H 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/10/23 13:07

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS07 - 18"	E310010-01A	Soil	09/29/23	10/03/23	Glass Jar, 4 oz.



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
10/10/2023 1:07:45PM

FS07 - 18"

E310010-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2340046	
Benzene	ND	0.0250	1	10/03/23	10/05/23	
Ethylbenzene	ND	0.0250	1	10/03/23	10/05/23	
Toluene	ND	0.0250	1	10/03/23	10/05/23	
o-Xylene	ND	0.0250	1	10/03/23	10/05/23	
p,m-Xylene	ND	0.0500	1	10/03/23	10/05/23	
Total Xylenes	ND	0.0250	1	10/03/23	10/05/23	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.2 %	70-130		10/03/23	10/05/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2340046	
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/03/23	10/05/23	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	93.2 %	70-130		10/03/23	10/05/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: KM		Batch: 2340061	
Diesel Range Organics (C10-C28)	ND	25.0	1	10/04/23	10/07/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/04/23	10/07/23	
<i>Surrogate: n-Nonane</i>						
	92.0 %	50-200		10/04/23	10/07/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2340074	
Chloride	126	20.0	1	10/04/23	10/05/23	



## QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	<b>Reported:</b>
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/10/2023 1:07:45PM

## Volatile Organics by EPA 8021B

Analyst: IY

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 (2340046-BLK1)

Prepared: 10/03/23 Analyzed: 10/05/23

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	7.63		8.00		95.4	70-130			

## LCS (2340046-BS1)

Prepared: 10/03/23 Analyzed: 10/05/23

Benzene	5.16	0.0250	5.00		103	70-130			
Ethylbenzene	5.08	0.0250	5.00		102	70-130			
Toluene	5.15	0.0250	5.00		103	70-130			
o-Xylene	5.11	0.0250	5.00		102	70-130			
p,m-Xylene	10.3	0.0500	10.0		103	70-130			
Total Xylenes	15.5	0.0250	15.0		103	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.74		8.00		96.7	70-130			

## Matrix Spike (2340046-MS1)

Source: E310011-21

Prepared: 10/03/23 Analyzed: 10/05/23

Benzene	5.12	0.0250	5.00	ND	102	54-133			
Ethylbenzene	5.06	0.0250	5.00	ND	101	61-133			
Toluene	5.11	0.0250	5.00	ND	102	61-130			
o-Xylene	5.07	0.0250	5.00	ND	101	63-131			
p,m-Xylene	10.3	0.0500	10.0	ND	103	63-131			
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.67		8.00		95.9	70-130			

## Matrix Spike Dup (2340046-MSD1)

Source: E310011-21

Prepared: 10/03/23 Analyzed: 10/05/23

Benzene	5.30	0.0250	5.00	ND	106	54-133	3.48	20	
Ethylbenzene	5.26	0.0250	5.00	ND	105	61-133	3.78	20	
Toluene	5.31	0.0250	5.00	ND	106	61-130	3.77	20	
o-Xylene	5.26	0.0250	5.00	ND	105	63-131	3.66	20	
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131	3.72	20	
Total Xylenes	16.0	0.0250	15.0	ND	106	63-131	3.70	20	
Surrogate: 4-Bromochlorobenzene-PID	7.70		8.00		96.3	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/10/2023 1:07:45PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

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 (2340046-BLK1) Prepared: 10/03/23 Analyzed: 10/05/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.55		8.00		94.4	70-130			

LCS (2340046-BS2) Prepared: 10/03/23 Analyzed: 10/05/23

Gasoline Range Organics (C6-C10)	50.9	20.0	50.0		102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		8.00		94.3	70-130			

Matrix Spike (2340046-MS2) Source: E310011-21 Prepared: 10/03/23 Analyzed: 10/05/23

Gasoline Range Organics (C6-C10)	53.2	20.0	50.0	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.53		8.00		94.1	70-130			

Matrix Spike Dup (2340046-MSD2) Source: E310011-21 Prepared: 10/03/23 Analyzed: 10/05/23

Gasoline Range Organics (C6-C10)	52.9	20.0	50.0	ND	106	70-130	0.496	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.41		8.00		92.7	70-130			





QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/10/2023 1:07:45PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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 (2340061-BLK1)					Prepared: 10/04/23 Analyzed: 10/07/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	47.7		50.0		95.4	50-200			

LCS (2340061-BS1)					Prepared: 10/04/23 Analyzed: 10/07/23				
Diesel Range Organics (C10-C28)	259	25.0	250		104	38-132			
Surrogate: n-Nonane	58.2		50.0		116	50-200			

Matrix Spike (2340061-MS1)					Source: E310012-04		Prepared: 10/04/23 Analyzed: 10/07/23		
Diesel Range Organics (C10-C28)	328	25.0	250	55.2	109	38-132			
Surrogate: n-Nonane	61.0		50.0		122	50-200			

Matrix Spike Dup (2340061-MSD1)					Source: E310012-04		Prepared: 10/04/23 Analyzed: 10/07/23		
Diesel Range Organics (C10-C28)	314	25.0	250	55.2	104	38-132	4.26	20	
Surrogate: n-Nonane	48.4		50.0		96.8	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/10/2023 1:07:45PM

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 (2340074-BLK1)					Prepared: 10/04/23 Analyzed: 10/05/23				
Chloride	ND	20.0							
LCS (2340074-BS1)					Prepared: 10/04/23 Analyzed: 10/05/23				
Chloride	249	20.0	250		99.6	90-110			
Matrix Spike (2340074-MS1)					Source: E309250-01		Prepared: 10/04/23 Analyzed: 10/05/23		
Chloride	1010	20.0	250	780	91.2	80-120			
Matrix Spike Dup (2340074-MSD1)					Source: E309250-01		Prepared: 10/04/23 Analyzed: 10/05/23		
Chloride	1040	20.0	250	780	104	80-120	3.11	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:	Margarita Federal 13 Com #005H	
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/10/23 13:07

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

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: Matador Production Company.		<b>Bill To</b>		<b>Lab Use Only</b>		<b>TAT</b>				<b>EPA Program</b>			
Project: Matador 13 Federal Com #005H		Attention: Matador Production Company		Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA
Project Manager: Ashley Giovengo		Address: on file		E310010		23052-0001					X		
Address: 3122 National Parks Hwy		City, State, Zip:		Analysis and Method								RCRA	
City, State, Zip: Carlsbad NM, 88220		Phone: (337)319-8398											
Phone: 575-988-0055		Email: clinton.talley@matadorresources.com											
Email: agiovengo@ensolum.com													
Report due by:													

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
11:47	9/29/2023	Soil	1	FS07 - 18"	1						X		

Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, chadhamilton@ensolum.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Chad Hamilton

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.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	<b>Lab Use Only</b> Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4
<i>Michelle Gayle</i>	10/2/23	1030	<i>Michelle Gayle</i>	10-2-23	1030	
<i>Michelle Gayle</i>	10-2-23	1815	<i>Andrew Russo</i>	10-2-23	1815	
<i>Andrew Russo</i>	10-2-23	2400	<i>Carla Mar</i>	9/10/23	8:15	

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 30 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: 10/3/2023 10:54:15AM

## 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:	10/03/23 08:15	Work Order ID:	E310010
Phone:	(972) 371-5200	Date Logged In:	10/03/23 09:39	Logged In By:	Caitlin Mars
Email:	agiovngo@ensolum.com	Due Date:	10/09/23 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? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

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

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

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.



Changed project name per C. Bunton 10/9/23 cm

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 30 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.



Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Matador Resources, LLC.

Project Name: Margarita Federal 13 Com #005H

Work Order: E310274

Job Number: 23052-0001

Received: 10/27/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
10/27/23

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: 10/27/23

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



Project Name: Margarita Federal 13 Com #005H  
Workorder: E310274  
Date Received: 10/27/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 10/27/2023 8:15:00AM, under the Project Name: Margarita Federal 13 Com #005H.

The analytical test results summarized in this report with the Project Name: Margarita Federal 13 Com #005H 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](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**

**Lynn Jarboe**  
Laboratory Technical Representative  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**Michelle Golzaes**  
Client Representative  
Office: 505-421-LABS(5227)  
Cell: 505-947-8222  
[mgonzales@envirotech-inc.com](mailto:mgonzales@envirotech-inc.com)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Matador Resources, LLC. 5400 LBJ Freeway, Suite 1500 Dallas TX, 75240	Project Name: Margarita Federal 13 Com #005H Project Number: 23052-0001 Project Manager: Ashley Giovengo	Reported: 10/27/23 14:21
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS18 - 2'	E310274-01A	Soil	10/26/23	10/27/23	Glass Jar, 2 oz.



## Sample Data

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

Project Name: Margarita Federal 13 Com #005H  
Project Number: 23052-0001  
Project Manager: Ashley Giovengo

**Reported:**  
10/27/2023 2:21:46PM

## FS18 - 2'

## E310274-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2343094
Benzene	ND	0.0250	1	10/26/23	10/27/23	
Ethylbenzene	ND	0.0250	1	10/26/23	10/27/23	
Toluene	ND	0.0250	1	10/26/23	10/27/23	
o-Xylene	ND	0.0250	1	10/26/23	10/27/23	
p,m-Xylene	ND	0.0500	1	10/26/23	10/27/23	
Total Xylenes	ND	0.0250	1	10/26/23	10/27/23	
Surrogate: 4-Bromochlorobenzene-PID	95.5 %	70-130		10/26/23	10/27/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2343094
Gasoline Range Organics (C6-C10)	ND	20.0	1	10/26/23	10/27/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.0 %	70-130		10/26/23	10/27/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2343116
Diesel Range Organics (C10-C28)	ND	25.0	1	10/27/23	10/27/23	
Oil Range Organics (C28-C36)	ND	50.0	1	10/27/23	10/27/23	
Surrogate: n-Nonane	84.3 %	50-200		10/27/23	10/27/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2343079
Chloride	666	20.0	1	10/27/23	10/27/23	



## QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/27/2023 2:21:46PM

## Volatile Organics by EPA 8021B

Analyst: RKS

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 (2343094-BLK1)

Prepared: 10/26/23 Analyzed: 10/27/23

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	7.82		8.00		97.8	70-130			

## LCS (2343094-BS1)

Prepared: 10/26/23 Analyzed: 10/27/23

Benzene	5.39	0.0250	5.00		108	70-130			
Ethylbenzene	5.32	0.0250	5.00		106	70-130			
Toluene	5.36	0.0250	5.00		107	70-130			
o-Xylene	5.33	0.0250	5.00		107	70-130			
p,m-Xylene	10.8	0.0500	10.0		108	70-130			
Total Xylenes	16.2	0.0250	15.0		108	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.81		8.00		97.6	70-130			

## Matrix Spike (2343094-MS1)

Source: E310261-05

Prepared: 10/26/23 Analyzed: 10/27/23

Benzene	5.59	0.0250	5.00	ND	112	54-133			
Ethylbenzene	5.51	0.0250	5.00	ND	110	61-133			
Toluene	5.57	0.0250	5.00	ND	111	61-130			
o-Xylene	5.52	0.0250	5.00	ND	110	63-131			
p,m-Xylene	11.2	0.0500	10.0	ND	112	63-131			
Total Xylenes	16.7	0.0250	15.0	ND	112	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.70		8.00		96.2	70-130			

## Matrix Spike Dup (2343094-MSD1)

Source: E310261-05

Prepared: 10/26/23 Analyzed: 10/27/23

Benzene	5.33	0.0250	5.00	ND	107	54-133	4.91	20	
Ethylbenzene	5.28	0.0250	5.00	ND	106	61-133	4.34	20	
Toluene	5.31	0.0250	5.00	ND	106	61-130	4.80	20	
o-Xylene	5.27	0.0250	5.00	ND	105	63-131	4.56	20	
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131	4.39	20	
Total Xylenes	16.0	0.0250	15.0	ND	107	63-131	4.44	20	
Surrogate: 4-Bromochlorobenzene-PID	7.75		8.00		96.9	70-130			





QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/27/2023 2:21:46PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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 (2343094-BLK1) Prepared: 10/26/23 Analyzed: 10/27/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.09		8.00		88.7	70-130			

LCS (2343094-BS2) Prepared: 10/26/23 Analyzed: 10/27/23

Gasoline Range Organics (C6-C10)	52.8	20.0	50.0		106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.23		8.00		90.4	70-130			

Matrix Spike (2343094-MS2) Source: E310261-05 Prepared: 10/26/23 Analyzed: 10/27/23

Gasoline Range Organics (C6-C10)	52.0	20.0	50.0	ND	104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.33		8.00		91.7	70-130			

Matrix Spike Dup (2343094-MSD2) Source: E310261-05 Prepared: 10/26/23 Analyzed: 10/27/23

Gasoline Range Organics (C6-C10)	55.5	20.0	50.0	ND	111	70-130	6.39	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.22		8.00		90.2	70-130			



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/27/2023 2:21:46PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

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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<b>Blank (2343116-BLK1)</b>					Prepared: 10/27/23 Analyzed: 10/27/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	43.6		50.0		87.2	50-200			

<b>LCS (2343116-BS1)</b>					Prepared: 10/27/23 Analyzed: 10/27/23				
Diesel Range Organics (C10-C28)	255	25.0	250		102	38-132			
Surrogate: n-Nonane	44.6		50.0		89.3	50-200			

<b>Matrix Spike (2343116-MS1)</b>					<b>Source: E310274-01</b>		Prepared: 10/27/23 Analyzed: 10/27/23		
Diesel Range Organics (C10-C28)	252	25.0	250	ND	101	38-132			
Surrogate: n-Nonane	41.6		50.0		83.2	50-200			

<b>Matrix Spike Dup (2343116-MSD1)</b>					<b>Source: E310274-01</b>		Prepared: 10/27/23 Analyzed: 10/27/23		
Diesel Range Organics (C10-C28)	254	25.0	250	ND	102	38-132	0.943	20	
Surrogate: n-Nonane	44.9		50.0		89.8	50-200			



QC Summary Data

Matador Resources, LLC.	Project Name:	Margarita Federal 13 Com #005H	Reported:
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/27/2023 2:21:46PM

Anions by EPA 300.0/9056A

Analyst: RAS

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

Blank (2343079-BLK1)					Prepared: 10/26/23 Analyzed: 10/27/23				
Chloride	ND	20.0							
LCS (2343079-BS1)					Prepared: 10/26/23 Analyzed: 10/27/23				
Chloride	245	20.0	250		97.8	90-110			
Matrix Spike (2343079-MS1)					Source: E310229-01		Prepared: 10/26/23 Analyzed: 10/27/23		
Chloride	248	20.0	250	ND	99.1	80-120			
Matrix Spike Dup (2343079-MSD1)					Source: E310229-01		Prepared: 10/26/23 Analyzed: 10/27/23		
Chloride	253	20.0	250	ND	101	80-120	2.12	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:	Margarita Federal 13 Com #005H	
5400 LBJ Freeway, Suite 1500	Project Number:	23052-0001	Reported:
Dallas TX, 75240	Project Manager:	Ashley Giovengo	10/27/23 14:21

- 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]



## Envirotech Analytical Laboratory

Printed: 10/27/2023 10:58:19AM

## 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:	10/27/23 08:15	Work Order ID:	E310274
Phone:	(972) 371-5200	Date Logged In:	10/26/23 17:58	Logged In By:	Caitlin Mars
Email:	agiovngo@ensolum.com	Due Date:	10/27/23 17:00 (0 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? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

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

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

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 F

### Email Correspondence

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**From:** [Velez, Nelson, EMNRD](#)  
**To:** [Ashley Giovengo](#)  
**Cc:** [clinton.talley@matadorresources.com](mailto:clinton.talley@matadorresources.com); [Cole Burton](#); [Bratcher, Michael, EMNRD](#)  
**Subject:** Re: [EXTERNAL] Matador Production - Extension Request - Margarita 5H 20230301-1600 Completions - Incident Number nAPP2306635043  
**Date:** Monday, June 26, 2023 7:53:42 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[Outlook-ftpwoffim.png](#)

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[ \*\*EXTERNAL EMAIL\*\* ]

Good morning Ashley,

Your request for a time extension is approved to 08/28/2023. Remediation Due date has been updated in the incident page.

Please include a copy of this and all correspondence in your appropriate report(s). Thank you.

Regards,

**Nelson Velez** • Environmental Specialist - Adv  
Environmental Bureau | EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87410  
(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>



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**From:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Sent:** Friday, June 23, 2023 3:48 PM  
**To:** Velez, Nelson, EMNRD <[Nelson.Velez@emnrd.nm.gov](mailto:Nelson.Velez@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] Matador Production - Extension Request - Margarita 5H 20230301-1600 Completions - Incident Number nAPP2306635043

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



**From:** Ashley Giovengo <agiovengo@ensolum.com>  
**Sent:** Friday, June 23, 2023 3:32 PM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** clinton.talley@matadorresources.com; Cole Burton <cburton@ensolum.com>  
**Subject:** [EXTERNAL] Matador Production - Extension Request - Margarita 5H 20230301-1600 Completions - Incident Number nAPP2306635043

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

Matador Production is requesting an extension of the current deadline of May 30, 2023, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the Margarita 5H 20230301-1600 Completions site (Incident Number nAPP2306635043). The release occurred on March 01, 2023, and as a result, approximately 21 barrels of produced water was released. The previous operator of this site, Advance Energy Partners Holdings, LLC (Advance), submitted the C-141 Form to the New Mexico Oil Conservation Division (NMOCD) on March 08, 2023. Matador Resources has since assumed responsibility for this release due to the recent acquisition of oil and gas well properties previously owned by Advance. Matador would like to request a 90-day extension of this deadline until August 28, 2023, to complete delineation sampling and excavation activities and to submit a remediation work plan or closure report.

Thanks,



**Ashley Giovengo**

Senior Engineer

575-988-0055

Ensolum, LLC

in f

**From:** [Velez, Nelson, EMNRD](#)  
**To:** [Ashley Giovengo](#)  
**Cc:** [Cole Burton](#); [Chad Hamilton](#); [clinton.talley@matadorresources.com](mailto:clinton.talley@matadorresources.com); [Bratcher, Michael, EMNRD](#)  
**Subject:** Matador Production - Extension Request - Margarita 5H 20230301 - 1600 Completions - Incident Number nAPP2306635043  
**Date:** Wednesday, August 23, 2023 9:51:47 AM  
**Attachments:** [image.png](#)  
[image.png](#)  
[image.png](#)  
[Outlook-fivunxfs.png](#)

Some people who received this message don't often get email from [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov). [Learn why this is important](#)

[\*\*EXTERNAL EMAIL\*\*]

Good morning Ashley,

Your 60-day time extension request is approved. This is the second extension requested. Remediation Due date has been updated to October 27, 2023 within the incident page.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Regards,

**Nelson Velez** • Environmental Specialist - Adv  
Environmental Bureau | EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87410  
(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>



**previous email submittal;**

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**From:** Ashley Giovengo <[agiovengo@ensolum.com](mailto:agiovengo@ensolum.com)>  
**Sent:** Tuesday, August 22, 2023 3:04 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Cole Burton <[cburton@ensolum.com](mailto:cburton@ensolum.com)>; Chad Hamilton <[chamilton@ensolum.com](mailto:chamilton@ensolum.com)>; [clinton.talley@matadorresources.com](mailto:clinton.talley@matadorresources.com)  
**Subject:** [EXTERNAL] Matador Production - Extension Request - Margarita 5H 20230301 - 1600 Completions - Incident Number nAPP2306635043

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello,

Matador Production is requesting an extension of the current deadline of August 28, 2023, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the Margarita 5H 20230301-1600 Completions site (Incident Number nAPP2306635043). The release occurred on March 01, 2023, and as a result, approximately 21 barrels of produced water was released. The previous operator of this site, Advance Energy Partners Holdings, LLC (Advance), submitted the C-141 Form to the New Mexico Oil Conservation Division (NMOCD) on March 08, 2023. Matador Resources has since assumed responsibility for this release due to the recent acquisition of oil and gas well properties previously owned by Advance. An extension request was submitted to the Division on June 23, 2023, and approved on June 26, 2023, however due to the presence of frac operations at the site, there has been limited access to the spill area. As of August 04, 2023, frac operations have ceased and equipment has been mobilized from the immediate spill area. Delineation sampling will be completed by August 25, 2023, and laboratory analytical results will be ready for review in 5-7 business days.

Matador would like to request a 60-day extension of this deadline until October 27, 2023, to complete excavation activities, collect confirmation samples and to submit a remediation work plan or closure report.

Thanks,



**Ashley Giovengo**

Senior Engineer

575-988-0055

**Ensolum, LLC**

in f 

**From:** [Cole Burton](#)  
**To:** [Enviro, OCD, EMNRD](#)  
**Cc:** [Ashley Giovengo](#); [Chad Hamilton](#)  
**Subject:** 48-hour Confirmation Sampling Notification Email - Margarita Federal Com #005H  
**Date:** Friday, September 22, 2023 7:49:00 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---

Hello,

We intend collect confirmation samples at Margarita Federal Com #005H site (nAPP2306635043) on Wednesday, September 27, 2023 and Thursday, September 28, 2023.

Please let us know if you plan to be onsite to oversee this sampling event.

Thanks,



**Cole Burton**  
Project Manager  
575-706-5056  
**Ensolum, LLC**  
in f 

**From:** [Chad Hamilton](#)  
**To:** [ocd.enviro@emnrd.nm.gov](mailto:ocd.enviro@emnrd.nm.gov)  
**Cc:** [Cole Burton](#); [Ashley Giovengo](#); [clinton.talley@matadorresources.com](mailto:clinton.talley@matadorresources.com); [Ethan Haft](#)  
**Subject:** 48-hour Confirmation Sampling Notification Email - Margarita 13 Federal Com #005H - Incident Number nAPP2306635043  
**Date:** Friday, October 13, 2023 7:14:00 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

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Hello,

We intend to collect confirmation samples at Matador Production Company's Margarita 13 Federal Com #005H site (Incident Number nAPP2306635043) beginning on Tuesday, October 17, 2023, at 08:00 am MST through Friday, October 20, 2023.

Please let us know if you plan to be onsite to oversee the sampling.

Thanks,



**Chad Hamilton**

Staff Geologist

940-923-0072

**Ensolum, LLC**

in f 



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 280506

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 280506
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	2/14/2024