Porosity	0.37	Fluid in pore space	0.1
Carbon Vall	ey 26-2		
Disposal (Yds)	52		
Bbls Release	9.25		

**Assumptions:** 

Porosity of pea gravel-37%

Pore space filled with fluid- 10%



3900 W. Mahan Hobbs, NM 88240 Office: (575) 393-6204

#### September 3, 2024

Attn. Cindy Cottrell Regulatory Coordinator & Corporate Secretary Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024

RE: Liner Inspection Report
Murchison Oil and Gas, LLC
Carbon Valley 26 Federal Com #002H
Incident Id: nAPP2415757342
UL/ P Sec. 26, T16S, R27E
Eddy County, NM
GPS: 32.88861, -104.24184

Mrs. Cottrell,

J & H Services, Inc. (J & H), on behalf of Murchison Oil and Gas, LLC (Murchison), has prepared this *Liner Inspection Report* for the release at the Carbon Valley 26 Federal Com #002H location. The site is located approximately 9.6 miles northeast of Artesia, New Mexico in Unit Letter P Section 26, Township 16 South, Range 27 East. The GPS coordinates of the site are: 32.88861, -104.24184. A "Topographic Map" is provided as Attachment 1.

On June 25, 2024, J & H conducted a site assessment. During the site assessment, a liner inspection was performed to determine if the integrity of the lined secondary containment was satisfactory. J & H personnel performed a walk-down of the entire liner and photographed the liner to demonstrate its integrity. A "Site Diagram" is provided as Attachment #2. A "Photographic Log" is provided as Attachment 3. Groundwater information is provided as Attachment #4. Notifications and correspondence are provided as Attachment #5.

Based on the assessment/observations made by J & H personnel, it was determined that the integrity of the liner is adequate and performing as intended.

Please contact me if you have any questions or wish to discuss the site.

Sincerely,

Zach Conder Environmental Manager J & H Services, Inc. (575) 640-6786

zach@jhservicesinc.com

Attachments:

Attachment 1 - Topographic Map

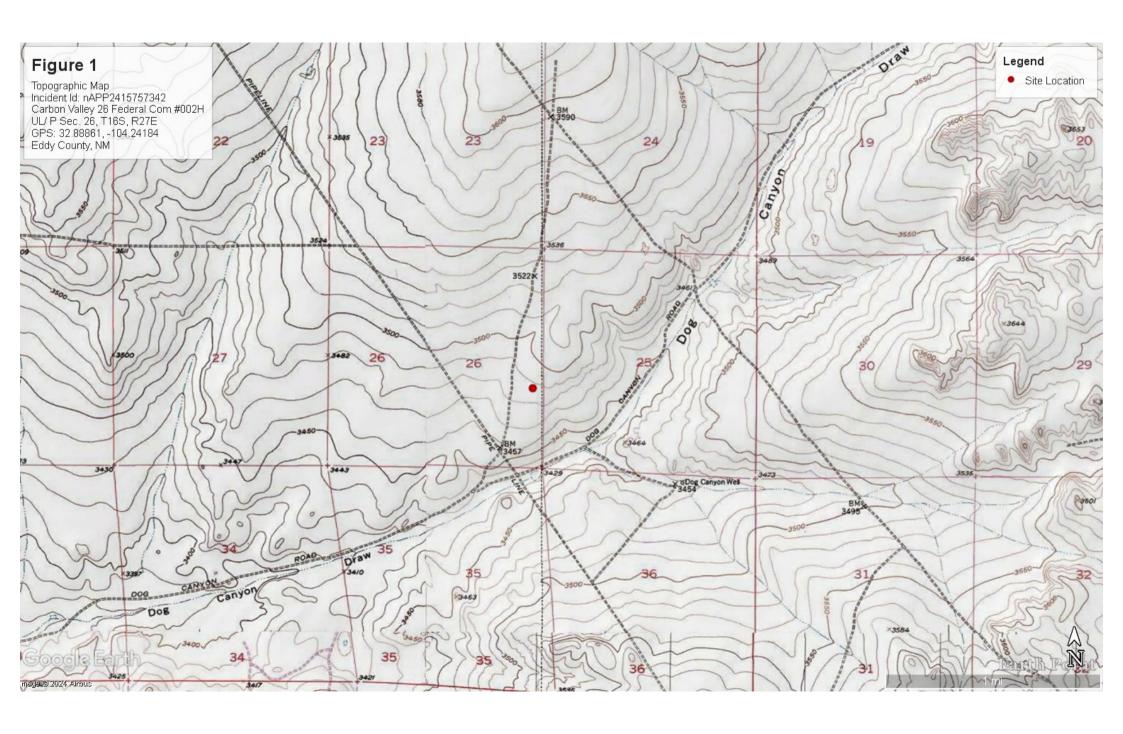
Attachment 2 - Site Diagram

Attachment 3 - Photographic Log

Attachment 4 - Groundwater Information

Attachment 5 - Notification(s) and Correspondence

Received by OCD: 9/3/2024 3:39:42 PM



Received by OCD: 9/3/2024 3:39:42 PM



## Photographic Log

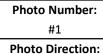
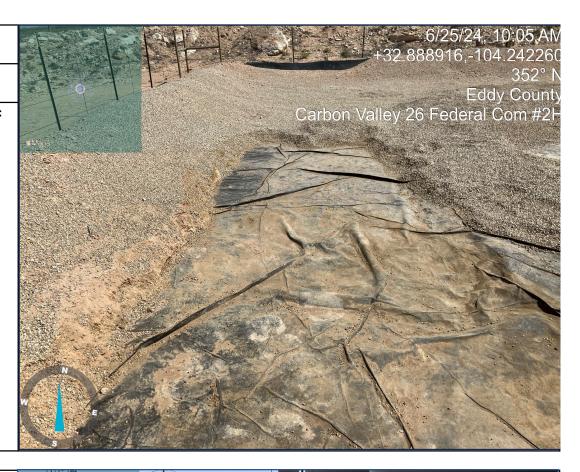


Photo Description: Exposed liner underneath release area.

North





## Photographic Log

**Photo Number:** 

#3

**Photo Direction:** 

East

**Photo Description:** 

Exposed liner underneath release area.



**Photo Number:** 

#4

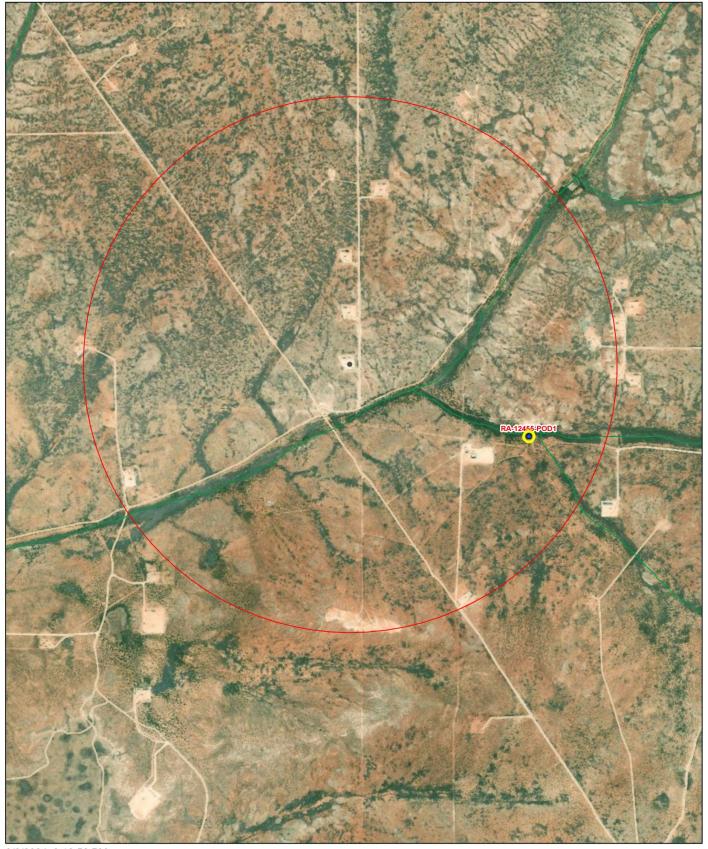
**Photo Direction:** 

East

**Photo Description:** 

Exposed liner underneath release area.



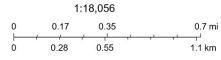


9/3/2024, 3:18:56 PM GIS WATERS PODs

ActiveNHD Flowlines

Artificial Path

Stream River



Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

# Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE

quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Υ	Мар
	RA 12455 POD1	NE	NW	NE	36	16S	27E	571998.5	3638766.3	•

\* UTM location was derived from PLSS - see Help

Driller License:	1058	Driller Company:	KEY'S DRILLING & PUMP SERVICE		
Driller Name:	KUEHN III, DO	ONALD			
Drill Start Date:	2016-09-12	Drill Finish Date:	2016-09-13	Plug Date:	
Log File Date:	2016-09-29	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	17
Casing Size:	4.50	Depth Well:	200	Depth Water:	55

### Water Bearing Stratifications:

Тор	Bottom	Description
55	65	Sandstone/Gravel/Conglomerate
80	90	Other/Unknown
160	200	Other/Unknown

## **Casing Perforations:**

Тор	Bottom
160	200

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

9/3/24 2:25 PM MST **Point of Diversion Summary** 

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District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 356696

#### **QUESTIONS**

Operator:	OGRID:
Murchison Oil and Gas, LLC	15363
7250 Dallas Parkway	Action Number:
Plano, TX 75024	356696
	Action Type:
	[NOTIFY] Notification Of Liner Inspection (C-141L)

#### QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2415757342
Incident Name	NAPP2415757342 CARBON VALLEY 26 FEDERAL COM #002H @ 30-015-37684
Incident Type	Other
Incident Status	Initial C-141 Approved
Incident Well	[30-015-37684] CARBON VALLEY 26 FEDERAL COM #002H

Location of Release Source		
Site Name	Carbon Valley 26 Federal Com #002H	
Date Release Discovered	06/10/2011	
Surface Owner	Federal	

Liner Inspection Event Information	
Please answer all the questions in this group.	
What is the liner inspection surface area in square feet	4,800
Have all the impacted materials been removed from the liner	Yes
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	06/25/2024
Time liner inspection will commence	09:00 AM
Please provide any information necessary for observers to liner inspection	Zach Conder 575-640-6786
Please provide any information necessary for navigation to liner inspection site	32.8886108,-104.2418442

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

CONDITIONS

Action 356696

#### **CONDITIONS**

Operator:	OGRID:
Murchison Oil and Gas, LLC	15363
7250 Dallas Parkway	Action Number:
Plano, TX 75024	356696
	Action Type:
	[NOTIFY] Notification Of Liner Inspection (C-141L)

#### CONDITIONS

Created By	Condition	Condition Date
ccottrell	Failure to notify the OCD of liner inspections including any changes in date/time per the requirements of 19.15.29.11.A(5)(a)(ii) NMAC, may result in the inspection not being accepted.	6/21/2024

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

QUESTIONS

Action 380094

#### **QUESTIONS**

Operator:	OGRID:
Murchison Oil and Gas, LLC	15363
7250 Dallas Parkway	Action Number:
Plano, TX 75024	380094
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2415757342
Incident Name	NAPP2415757342 CARBON VALLEY 26 FEDERAL COM #002H @ 30-015-37684
Incident Type	Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-37684] CARBON VALLEY 26 FEDERAL COM #002H

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Carbon Valley 26 Federal Com #002H
Date Release Discovered	06/10/2011
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Normal Operations   Unknown   Crude Oil   Released: 0 BBL (Unknown Released Amount)   Recovered: 0 BBL   Lost: 0 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	C-141 requested by OCD for area of impact identified in Google Earth aerial photo. Date of photo used in lieu of unknown release date. Environmental consultant obtained to investigate indicated area of approximately 1,630 sq. ft. located inside lined tank battery containment. Stained caliche being removed and disposed of at OCD approved facility. Preparing for liner inspection.

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<u>District IV</u> 1220 S. St Francis Dr., Santa Fe, NM 87505

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

QUESTIONS, Page 2

Action 380094

Phone:(505) 476-3470 Fax:(505) 476-3462		
QUESTIONS (continued)		
Operator:  Murchison Oil and Gas, LLC 7250 Dallas Parkway	OGRID: 15363 Action Number:	
Plano, TX 75024	380094	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	
QUESTIONS		
Nature and Volume of Release (continued)		
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.	
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes	
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.	
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e.	e. gas only) are to be submitted on the C-129 form.	
Initial Response		
The responsible party must undertake the following actions immediately unless they could create a s	rafety hazard that would result in injury.	
The source of the release has been stopped	True	
The impacted area has been secured to protect human health and the environment	True	
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True	
All free liquids and recoverable materials have been removed and managed appropriately	True	
If all the actions described above have not been undertaken, explain why	Not answered.	
	ation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of valuation in the follow-up C-141 submission.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are require 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 to deep 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.		
	Name: Cindy Cottrell	

Title: Regulatory Coordinator

Email: ccottrell@jdmii.com Date: 09/03/2024

I hereby agree and sign off to the above statement

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

QUESTIONS, Page 3

Action 380094

#### **QUESTIONS** (continued)

Operator:	OGRID:
Murchison Oil and Gas, LLC	15363
7250 Dallas Parkway	Action Number:
Plano, TX 75024	380094
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Site Characterization		
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)	
What method was used to determine the depth to ground water	NM OSE iWaters Database Search	
Did this release impact groundwater or surface water	No	
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:		
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)	
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)	
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)	
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)	
Any other fresh water well or spring	Between 1 and 5 (mi.)	
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)	
A wetland	Between ½ and 1 (mi.)	
A subsurface mine	Between ½ and 1 (mi.)	
An (non-karst) unstable area	Greater than 5 (mi.)	
Categorize the risk of this well / site being in a karst geology	High	
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)	
Did the release impact areas not on an exploration, development, production, or storage site	No	

Remediation Plan		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
Requesting a remediation plan approval with this submission	Yes	
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.		
Have the lateral and vertical extents of contamination been fully delineated	Yes	
Was this release entirely contained within a lined containment area	Yes	
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.		
On what estimated date will the remediation commence	06/25/2024	
On what date will (or did) the final sampling or liner inspection occur	06/25/2024	
On what date will (or was) the remediation complete(d)	09/20/2024	
What is the estimated surface area (in square feet) that will be remediated	1630	
What is the estimated volume (in cubic yards) that will be remediated	52	
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.		

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

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

QUESTIONS, Page 4

Action 380094

#### **QUESTIONS** (continued)

Operator:	OGRID:
Murchison Oil and Gas, LLC	15363
7250 Dallas Parkway	Action Number:
Plano, TX 75024	380094
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Remediation Plan (continued)		
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.		
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:		
(Select all answers below that apply.)		
Is (or was) there affected material present needing to be removed	Yes	
Is (or was) there a power wash of the lined containment area (to be) performed	No	
OTHER (Non-listed remedial process)	Yes	
Other Non-listed Remedial Process. Please specify	Upon approval place clean gravel on liner.	
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required		
······································		

to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by

the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement

Name: Cindy Cottrell Title: Regulatory Coordinator Email: ccottrell@jdmii.com Date: 09/03/2024

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

District I

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

QUESTIONS, Page 6

Action 380094

QUESTIONS (con	tinuea)
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Operator:	OGRID:
Murchison Oil and Gas, LLC	15363
7250 Dallas Parkway	Action Number:
Plano, TX 75024	380094
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### QUESTIONS

Liner Inspection Information		
Last liner inspection notification (C-141L) recorded	356696	
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	06/25/2024	
Was all the impacted materials removed from the liner	Yes	
What was the liner inspection surface area in square feet	4800	

Remediation Closure Request			
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.			
Requesting a remediation closure approval with this submission	Yes		
Have the lateral and vertical extents of contamination been fully delineated	Yes		
Was this release entirely contained within a lined containment area	Yes		
What was the total surface area (in square feet) remediated	1630		
What was the total volume (cubic yards) remediated	52		
Summarize any additional remediation activities not included by answers (above)	52 yards of stained gravel hauled to Halfway/CRI Facility fEEM0112334510.		

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

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

I hereby agree and sign off to the above statement

Name: Cindy Cottrell Title: Regulatory Coordinator Email: ccottrell@jdmii.com Date: 09/03/2024

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

CONDITIONS

Action 380094

#### **CONDITIONS**

Operator:	OGRID:
Murchison Oil and Gas, LLC	15363
7250 Dallas Parkway	Action Number:
Plano, TX 75024	380094
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

#### CONDITIONS

Created By	Condition	Condition Date
bhall	Closure approved.	9/4/2024