December 28, 2022

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

Re: Closure Request Addendum
SEMU 37
Incident Number nAPP2228376108
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Natural Resources, LLC (Maverick), has prepared this *Closure Request Addendum* to provide an update to the depth to groundwater determination activities performed at the SEMU 37 (Site). The purpose of groundwater determination activities was to address a denial of the *Closure Request,* dated October 31, 2022, by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD expressed concern that the depth to groundwater assessment was inadequate. Based on additional investigation of depth to groundwater, Maverick is requesting closure for Incident Number nAPP2228376108.

All of the release details regarding the incidents, site characterization, and remediation conducted can be referenced in the original *Closure Request*. NMOCD denied the *Closure Request* on November 28, 2022, for the following reason:

> *Closure Report Denied. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater.*

Ensolum acknowledges there is no water well data within ½ mile of the Site that is less than 25 years old. However, according to the NMOCD's *Procedures for Implementation of the Spill Rule (19.15.29 NMAC)* (Guidance Document), 19.15.11(A)(2) of the New Mexico Administrative Code (NMAC) allows for various means of determining depth the groundwater. While the criteria stated in the denial are preferred, the Guidance Document indicates if the operator has applicable information which does not meet the preference, the NMOCD will review alternative information on a case-by-case basis. As such, Ensolum requests NMOCD review more recent data obtained just outside of ½ mile and in multiple directions from the Site. Ensolum proposes that these newer data, combined with the depth to water data submitted in the original *Closure Request* from a water well within a ½ mile of the Site, but older than 25 years old, provides a robust argument for the depth to water estimate.

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ADDITIONAL DATA

On November 10, 2022, a borehole (L-15414- POD1) was advanced to a depth of 103 feet bgs via air rotary drill rig. The borehole was located approximately 0.8 miles southeast of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Appendix A. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 100 feet bgs. The borehole was properly abandoned using hydrated bentonite chips.

In addition, on September 27, 2022, a second borehole (L-15389 POD 1) was advanced to a depth of 120 feet bgs via air rotary drill rig. The borehole is located approximately 1.6 miles west of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Appendix A. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 100 feet bgs. The borehole was properly abandoned using hydrated bentonite chips.

There are now five data points around the Site indicating depth to groundwater is greater than 51 feet bgs. The new data does not contradict the older data point at 0.4 miles away from the Site and provides supplemental evidence to confirm the previous depth to groundwater estimate.

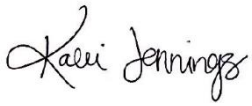
CLOSURE REQUEST

Excavation of impacted soil supported efforts to remediate impacted soil at this Site following the release event. While data used to estimate depth to groundwater may not meet preferred criteria, Ensolum respectfully request NMOCD consider addition of supplemental data to verify the older data point located within the preferred ½ mile. Ensolum and Maverick believe the additional data confirm the correct application of Table I Closure Criteria in the original *Closure Report*. As such, Maverick respectfully requests closure for Incident Number nAPP2228376108. The Final C-141 is included in Appendix B.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely,
Ensolum, LLC

Hadlie Green
Staff Geologist



Kalei Jennings
Senior Scientist

cc: Bryce Wagoner, Maverick Natural Resources
Bureau of Land Management

Appendices:

Figure 1	Site Location Map
Appendix A	Lithologic/Soil Sampling Logs
Appendix B	Final C-141

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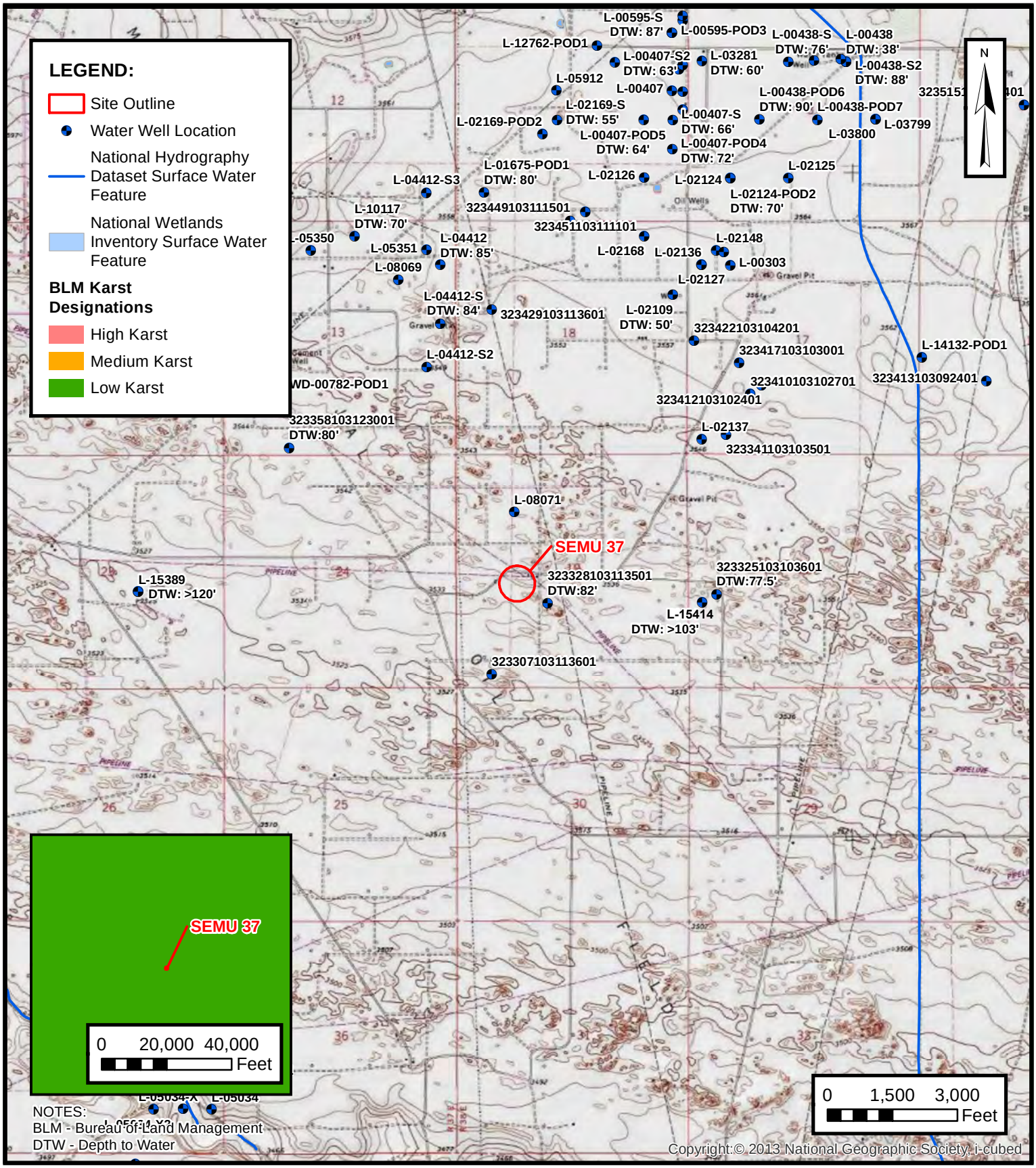
FIGURES



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

MAVERICK NATURAL RESOURCES, LLC
SEMU 37
NAPP2228376108
Unit K, Sec 19, T20S, R38E
Lea County, New Mexico

FIGURE
1

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APPENDIX A

Lithologic Soil Sampling Logs

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Sample Name: L-15414-POD1	Date: 11/10/2022	
Site Name: SEMU Burger B 108		
Incident Number: nAPP2228376108		
Job Number: 03D2057013		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS / PV	Method: Air Rotary
Coordinates: 32.556516, -103.178207	Hole Diameter: 6"	Total Depth: 103'

Comments: Soil boring was advanced to a total depth of 103' bgs. No water was observed within the soil boring after at least 72 hours. On 11/14/2022 the soil boring was plugged and abandoned using hydrated bentonite chips.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SM	(0-30'), SAND, dry, tan to brown, medium to fine grain, poorly graded with silt, no stain, no odor.
Dry	-	-	N	-	-	10		
Dry	-	-	N	-	-	20		@20' color change to tan.
Dry	-	-	N	-	-	30	SP-SC	(30-50'), SAND, dry, tan, medium to fine grain, poorly graded with clay, non-plastic, noncohesive, some subround small gravel, no stain, no odor.
Dry	-	-	N	-	-	40		
Dry	-	-	N	-	-	50	SP-SM	(50-103'), SAND, dry, reddish brown, medium to fine grain, poorly graded with silt, no stain, no odor.
Dry	-	-	N	-	-	60		@60' color change to light green to brown, some reddish brown quartzite clasts.
Dry	-	-	N	-	-	70		@70' color change to reddish brown, few caliche nodules,
Dry	-	-	N	-	-	80		@80' no caliche nodules.
Dry	-	-	N	-	-	90		
Dry	-	-	N	-	-	100		
Dry	-	-	N	-	-	103		NOTE: refusal @ 103' using air rotary drill rig due to abundant sand.

Total Depth @ 103 feet bgs

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Sample Name: BH01 (L-15389)	Date: 9/27/2022	
Site Name: SEMU Eumont #068		
Incident Number: nAPP2228376108		
Job Number: 03D2057017		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CS / JF	Method: Air Rotary
Coordinates: 32.557188, -103.219966	Hole Diameter: 6"	Total Depth: 120'

Comments: Soil boring was advanced to a total depth of 120' bgs. No water was observed within the soil boring after at least 72 hours. On 10/3/2022 the soil boring was plugged and abandoned using hydrated bentonite chips.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	SP-SC	(0-30'), SAND, dry, grayish-tan, medium to fine grain, poorly graded with moderate amounts of clay.
Dry	-	-	N	-	-	10		
Dry	-	-	N	-	-	20		@20' grayish-tan calcite, medium grain
Dry	-	-	N	-	-	30	SP-SC	(30-120'), SAND, dry, tannish brown, medium to fine grain, poorly graded with clay, non-plastic, noncohesive, no stain, no odor.
Dry	-	-	N	-	-	40		
Dry	-	-	N	-	-	50		
Dry	-	-	N	-	-	60		@60' trace amounts of chert nodules.
Dry	-	-	N	-	-	70		
Dry	-	-	N	-	-	80		@80' trace amounts of clay.
Dry	-	-	N	-	-	90		
Dry	-	-	N	-	-	100		
Dry	-	-	N	-	-	110		
Dry	-	-	N	-	-	120		NOTE: Total Depth @ 120 feet bgs

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APPENDIX B

Final C-141

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	nAPP2228376108
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Maverick Permian, LLC	OGRID: 331199
Contact Name: Bryce Wagoner	Contact Telephone: 928-241-1862
Contact email: Bryce.Wagoner@mavresources.com	Incident # *(assigned by OCD)* nAPP2228376108
Contact mailing address: 1410 NW County Road Hobbs, NM 88240	

Location of Release Source

Latitude 32.557631 Longitude -103.191824

(NAD 83 in decimal degrees to 5 decimal places)

Site Name SEMU 37	Site Type
Date Release Discovered September 23, 2022	API# *(if applicable)* *30-025-26333*

Unit Letter	Section	Township	Range	County
K	19	20S	38E	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)

☒ Crude Oil	Volume Released (bbls) 0.92 bbls	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 2.45 bbls	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☒ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
The release was caused by a hole in the flowline resulting in a minor release. The release was located off pad. The source of the release has been stopped and the impacted area has been secured. An evaluation will be conducted at the Site to determine if we may commence remediation immediately or delineate any possible impact from the release.

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2228376108
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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: ____Bryce Wagoner _____ Title: ___Permian HSE Specialist II_____

Signature: _____ Date: __10/10/2022_____

email: _____Bryce.Wagoner@mavresources.com____ Telephone: ___928-241-1862_____

OCD Only

Received by: ____Jocelyn Harimon_____ Date: __10/10/2022__

nAPP2228376108

Pooled Fluids on the Surface										
	Length (ft.)	Width (ft.)	Depth (in)	# of Boundaries *edges of pool where depth is 0 . don't count shared boundaries*	Oil-Water Ratio (%)	Pooled Area (ft^2)	Estimated Average Depth (ft.)	Pooled Volume (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle B					0.01	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E						0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
							Total Volume (bbls):	**0.00**	**0.00**	**0.00**

Subsurface Fluids										
	Length (ft.)	Width (ft.)	Depth (in.)	Saturation (%) **10% in consolidated sediments after rain to 50% in sand with no precipitation*	Oil-Water Ratio (%)	Area (ft^2)	Volume (bbl.)	Estimated Volume in Subsurface (bbl.)	Volume of Oil in Subsurface (bbl.)	Volume of Water in Subsurface (bbl.)
Rectangle A	26.0	9.0	8.0	0.1	0.15	234.0	27.8	2.8	0.42	2.4
Rectangle B	10.0	10.0	4.0	0.1	0.85	100.0	5.9	0.6	0.50	0.1
Rectangle C						0.0	0.0	0.0	0.00	0.0
Rectangle D						0.0	0.0	0.0	0.00	0.0
Rectangle E						0.0	0.0	0.0	0.00	0.0
Rectangle F						0.0	0.0	0.0	0.00	0.0
Rectangle G						0.0	0.0	0.0	0.00	0.0
Rectangle H						0.0	0.0	0.0	0.00	0.0
Rectangle I						0.0	0.0	0.0	0.00	0.0
Rectangle J						0.0	0.0	0.0	0.00	0.0
							Total Volume (bbls):	**3.37**	**0.92**	**2.45**

TOTAL RELEASE VOLUME (bbls):	**3.4**

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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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

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 150010
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	10/12/2022

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2228376108
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?	50-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2228376108
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: ___Bryce Wagoner_____ Title: __Permian HSE Specialist II_____

Signature:_____ Date: __12/28/2022_____

email: __Bryce.Wagoner@mavresources.com_____ Telephone: ___928-241-1862_____

OCD Only

Received by: ___Jocelyn Harimon_____ Date: ___12/29/2022___

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2228376108
District RP	
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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: Bryce Wagoner Title: Permian HSE Specialist II

Signature: Date: 12/28/2022

email: Bryce.Wagoner@mavresources.com Telephone: 928-241-1862

OCD Only

Received by: Jocelyn Harimon Date: 12/29/2022

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

Closure Approved by: Jennifer Nobui Date: 01/24/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

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1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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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 170835

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 170835
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Approved.	1/24/2023