ENSOLUM

June 14, 2023

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

Re: Remediation Work Plan
MCA 301
Incident Number NAPP2307558601
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Maverick Permian, LLC (Maverick), has prepared the following *Remediation Work Plan* (*Work Plan*) to address impacted soil resulting from a casing leak on an injection well at the MCA 301 (Site). The following *Work Plan* proposes lateral and vertical delineation of the release and excavation of the impacted soil.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit J, Section 28, Township 17 South, Range 32 East, in Lea County, New Mexico (32.80370°, -103.76860°) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM).

On February 23, 2023, internal corrosion caused a casing leak on a shut-in injection well, resulting in the release of approximately 6.9 barrels (bbls) of produced water onto the surface of the well pad and into the pasture south of the pad. No released fluids were recovered. Maverick reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on March 16, 2023. The release was assigned Incident Number NAPP2307558601.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (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.

Depth to groundwater at the Site is estimated to be between 51 and 100 feet below ground surface (bgs) based on the nearest available groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well RA-12721-POD2, located 0.2 miles northwest of the Site. The well is a temporary monitoring well installed to monitor for migration of off-site groundwater impacts associated with a release at the Maljamar Gas Plant, located approximately 0.75 miles north-northwest of the Site. The groundwater well was drilled during April 2019 to a total depth of 124 feet bgs. The well has a reported depth to groundwater of 75 feet bgs. All wells

used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

While NMOSE wells RA-12574-POD1, RA-12204-POD1, RA-12574-POD2, and RA-12721-POD3 are within 1,000 feet of the Site, they are temporary monitoring wells used to monitor groundwater impacts from the release at the Maljamar Gas Plant. Groundwater flow direction from the release has been documented to generally flow to the east-southeast, which is cross/upgradient of the Site. The temporary monitoring wells are not used for domestic or livestock purposes, but solely to monitor groundwater impacts originating from the Maljamar Gas Plant release location. Based on the use of the water wells, the distance between the wells and the release extent, and the documented groundwater flow direction, the monitoring wells are not considered a sensitive receptor for the Site. As such, Maverick is requesting a variance to 19.15.29.12C.(4)(c)(ii) in application to the temporary monitoring wells.

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 2,640 feet west 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 from a 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: 10,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

PROPOSED REMEDIATION WORKPLAN

Maverick requests approval to complete the following remediation activities:

- Complete Site assessment activities within and around the release extent to delineate the lateral and vertical extent of impacted soil resulting from the produce water release.
    - Soil samples will be collected outside of the release extent from a depth of 0.5 feet bgs to confirm the lateral extent of the release.
    - Boreholes will be advanced via hand auger within the release extent to assess the vertical extent of impacted soil. Soil from the boreholes will be field screened at 1-foot intervals for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. Field screening results and observations will be logged on lithologic/soil sampling logs. Two delineation samples from each borehole will be submitted for laboratory analysis; the sample with the highest field screening result and the sample from the final borehole depth.

        - Final depth of the boreholes will be determined by field screening results indicating compliance with the Site Closure Criteria or the reclamation requirements for the top four feet of the pasture area impacted by the release.
    - The soil samples will be placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples will be transported under strict chain-of-custody procedures to Cardinal Laboratories (Cardinal) in Hobbs, New Mexico, for analysis of 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.
- Impacted soil will be excavated from the release area based on delineation soil sample analytical results.
    - Excavation will proceed laterally until sidewall samples are compliant with the Site Closure Criteria in the on-pad release area and the reclamation requirements in the top four feet of the pasture release area.
    - Excavation will proceed vertically until floor samples are compliant with the Site Closure Criteria in the on-pad release area and the reclamation requirements in the top four feet of the pasture release area.
    - Following removal of the impacted soil, 5-point composite confirmation samples will be collected at least every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation samples will be submitted for laboratory analysis of BTEX, TPH, and chloride as described above.
- The excavation will be backfilled and recontoured to match pre-existing conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture.
- The impacted soil will be disposed of at a licensed disposal facility.

Maverick will complete the delineation and excavation activities within 90 days of the date of approval of this *Work Plan* by the NMOCD. A final report requesting closure will be submitted within 30 days of receipt of final laboratory analytical results. Maverick believes the scope of work described above meets the requirements set forth in 19.15.29.13 NMAC and is protective of human health, the environment, and groundwater. As such, Maverick respectfully requests approval of this *Work Plan* for Incident Number NAPP2307558601. The Form 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

Kalei Jennings
Senior Project Manager

Aimee Cole
Senior Managing Scientist

cc: Bryce Wagoner, Maverick Permian, LLC
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Appendix A	Referenced Well Records
Appendix B	Form C-141

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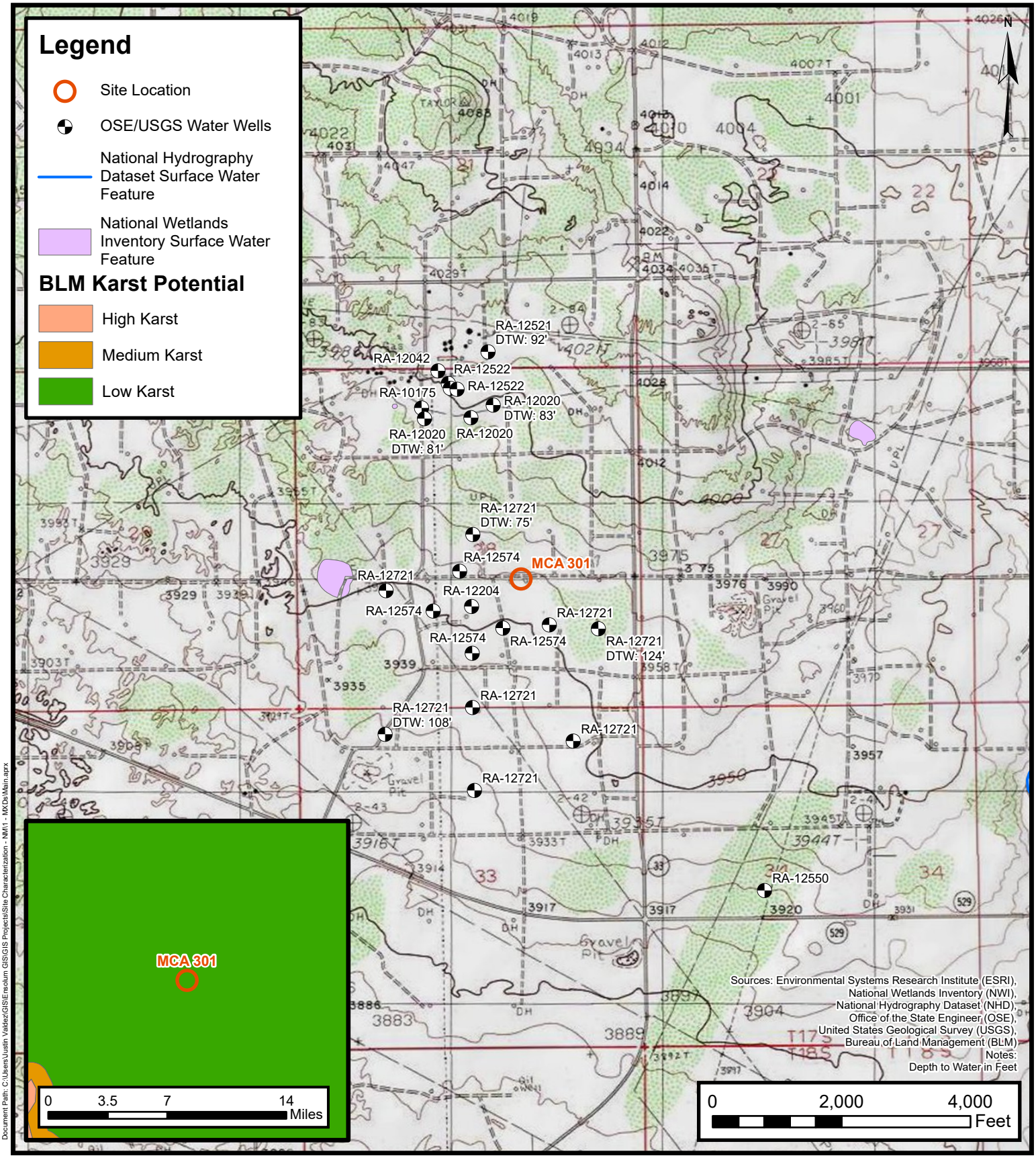
FIGURES



Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\GIS Projects\Site Characterization - NM\1 - MXDs\Main.aprx

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Location Map

Maverick Permian, LLC
MCA 301
Unit J, Sec 28, T17S, R32E
Lea County, New Mexico
Incident Number: NAPP2307558601

FIGURE
1

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APPENDIX A

Referenced Well Records

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	RA 12721 POD2	1	1	4	28	17S	32E	615055	3630407

Driller License:	1456	**Driller Company:**	WHITE DRILLING COMPANY		
Driller Name:	JOHN W WHITE				
Drill Start Date:	04/18/2019	**Drill Finish Date:**	04/19/2019	**Plug Date:**	
Log File Date:	05/15/2019	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	0 GPM
Casing Size:	2.00	**Depth Well:**	124 feet	**Depth Water:**	75 feet

Water Bearing Stratifications:	Top	Bottom	Description
	56	99	Sandstone/Gravel/Conglomerate
	99	102	Sandstone/Gravel/Conglomerate
	102	103	Shale/Mudstone/Siltstone
	103	105	Shale/Mudstone/Siltstone
	105	117	Shale/Mudstone/Siltstone
	117	118	Other/Unknown
	118	120	Shale/Mudstone/Siltstone
	120	121	Sandstone/Gravel/Conglomerate
	121	124	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	84	124

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	RA 12721 POD3	2	3	4	28	17S	32E	615417	3629979

Driller License:	1456	**Driller Company:**	WHITE DRILLING COMPANY		
Driller Name:	JOHN W WHITE				
Drill Start Date:	04/18/2019	**Drill Finish Date:**	04/19/2019	**Plug Date:**	
Log File Date:	05/15/2019	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	0 GPM
Casing Size:	2.00	**Depth Well:**	115 feet	**Depth Water:**	

Water Bearing Stratifications:	Top	Bottom	Description
	88	111	Sandstone/Gravel/Conglomerate
	111	112	Shale/Mudstone/Siltstone
	112	114	Shale/Mudstone/Siltstone
	114	115	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	85	115

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	RA 12020 POD3	2	1	2	28	17S	32E	615152	3631019

Driller License:	1456	**Driller Company:**	WHITE DRILLING COMPANY		
Driller Name:	WHITE, JOHN W				
Drill Start Date:	07/13/2015	**Drill Finish Date:**	07/15/2015	**Plug Date:**	
Log File Date:	08/10/2015	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	2.00	**Depth Well:**	112 feet	**Depth Water:**	83 feet

Water Bearing Stratifications:	Top	Bottom	Description
	70	96	Sandstone/Gravel/Conglomerate
	96	97	Sandstone/Gravel/Conglomerate
	97	101	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	73	108

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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STATE ENGINEER OFFICE

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): MW-23 POD3	OSE FILE NUMBER(S): RA 12020
WELL OWNER NAME(S): Phillips 66 Company	PHONE (OPTIONAL): 918-977-4094
WELL OWNER MAILING ADDRESS: 420 S Keeler (1708-02 Phillips Bldg)	CITY: Bartlesville STATE: OK ZIP: 74004

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	48	40.09	N
LONGITUDE	103	46	11.90	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE: Maljamar Gas Plant

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7/13/2015	7/15/2015	112.0	112.0	83.0

COMPLETED WELL IS: ○ ARTESIAN ○ DRY HOLE ◉ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): 84.35

DRILLING FLUID: ◉ AIR ○ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ○ ROTARY ○ HAMMER ○ CABLE TOOL ○ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0.0	73.0	6 1/8	Sch. 40 PVC Riser	Threads	2.0	1/4"	
73.0	108.0	6 1/8	Sch. 40 PVC Screen	Threads	2.0	1/4"	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
112.0	70.0	6 1/8	8/16 Sand	16 Sacks	Hand Mix
70.0	10.0	6 1/8	Bentonite Pellets	20 Sacks	Hand Mix
10.0	0.0	6 1/8	Cement	1.63	Hand Mix

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	RA-12020	POD NUMBER	3	TRN NUMBER	534328
LOCATION	17S.32E.28.212				PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	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)
0.0	4.0	4.0	Brown sand	○ Y ◉ N	
4.0	6.0	2.0	Redish brown clayey sand/sandy clay	○ Y ◉ N	
6.0	11.0	5.0	Brown sandstone	○ Y ◉ N	
11.0	15.0	4.0	Reddish brown sandstone/sand	○ Y ◉ N	
15.0	32.0	17.0	Reddish brown sand	○ Y ◉ N	
32.0	40.0	8.0	Reddish brown sandy shale	○ Y ◉ N	
40.0	48.0	8.0	Light brown sand/sandstone	○ Y ◉ N	
48.0	54.0	6.0	"Firm" brown sandstone	○ Y ◉ N	
54.0	56.0	2.0	Reddish brown sandstone	○ Y ◉ N	
56.0	58.0	2.0	Green sansy shale	○ Y ◉ N	
58.0	70.0	12.0	Layers of reddish, brown and green sandstone	○ Y ◉ N	
70.0	96.0	26.0	Yellowish green sandstone	◉ Y ○ N	
96.0	96.5	0.5	Light brown sandstone "firm"	◉ Y ○ N	
96.5	101.0	4.5	Gray silty shale	◉ Y ○ N	
101.0	104.0	3.0	Light brown w/gray sandstone mix	○ Y ○ N	
104.0	112.0	8.0	Yellow brown sandstone	○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

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:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

William B. Atkins

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 20 DAYS AFTER COMPLETION OF WELL DRILLING:

John White — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

7-29-15 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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2019 MAY 13 AM 8:25

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
MW-7 POD 2		RA-12721

WELL OWNER NAME(S)	PHONE (OPTIONAL)
ConocoPhillips Company	432-258-3451

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
901 W Wall St, Suite 100	Midland	TX	79701

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	48	20.25	N
	LONGITUDE	103	46	15.89	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

MCA 357

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
04/18/2019	04/19/2019	124.0		75.0

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 86.85

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
-2.7	84.0	6.0	Sch. 40 PVC	Threads	2.0	1/4"	
84.0	124.0	6.0	Sch. 40 PVC	Threads	2.0	1/4"	.010

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0.0	10.0	6.0	Type 2 Portland Cement w/5% Bentonite	1.963	Pump Mix w/Tremie Pipe
10.0	77.0	6.0	Bentonite Chips	20 Bags	Hand Mix
77.0	124.0	6.0	20/40 Sand	16 Bags	Hand Mix

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO.	RA-12721	POD NO.	2	TRN NO.	645505
LOCATION	141 T17S R32E Sec 28			WELL TAG ID NO.	NA

PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	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)
0.0	3.0	3.0	Brown sand	Y ✓ N	
3.0	5.0	2.0	Brown clayey sand	Y ✓ N	
5.0	7.0	2.0	Tan brown sand	Y ✓ N	
7.0	22.0	15.0	Light brown sand	Y ✓ N	
22.0	26.0	4.0	Brown sand/sandstone w/gravel	Y ✓ N	
26.0	52.0	26.0	Brown sand/sandstone	Y ✓ N	
52.0	56.0	4.0	Gray/brown sand/sandstone	Y ✓ N	
56.0	99.0	43.0	Green, gray, and brown sand/sandstone layers	✓ Y N	
99.0	102.0	3.0	Brown sandstone	✓ Y N	
102.0	103.0	1.0	Gray silty shale	✓ Y N	
103.0	105.0	2.0	Reddish brown silty shale	✓ Y N	
105.0	117.0	12.0	Dark brown/reddish brown silty shale	✓ Y N	
117.0	118.0	1.0	Gray slitstone	✓ Y N	
118.0	120.0	2.0	Dark red silty shale	✓ Y N	
120.0	121.0	1.0	Brown sand	✓ Y N	
121.0	124.0	3.0	Dark red silty shale	✓ Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ 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:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

William B. Atkins

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

SIGNATURE OF DRILLER / PRINT SIGNEE NAME

5/7/2019

DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO. RA-12721	POD NO. 2	TRN NO. 645505	
LOCATION 141 T17S R32E Sec 18		WELL TAG ID NO. NA	PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
MW-8 POD3		RA-12721

WELL OWNER NAME(S)	PHONE (OPTIONAL)
ConocoPhillips Company	432-258-3451

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
901 W Wall St, Suite 100	Midland	TX	79701

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	48	6.23	N
	LONGITUDE	103	46	2.18	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

MCA 357

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
04/18/2019	04/19/2019	115.0		

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 92.8

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
-2.7	85.0	6.0	Sch. 40 PVC	Threads	2.0	1/4"	
85.0	115.0	6.0	Sch. 40 PVC	Threads	2.0	1/4"	.010

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0.0	10.0	6.0	Type 2 Portland Cement w/5% Bentonite	1.963	Pump Mix w/Tremie Pipe
10.0	82.0	6.0	Bentonite Chips	21 Bags	Hand Mix
82.0	115.0	6.0	20/40 Sand	16 Bags	Hand Mix

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. RA-12721	POD NO. 3	TRN NO. 695505	
LOCATION 34 2 T17S R32E Sec 28		WELL TAG ID NO. NA	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	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)
0.0	0.5	0.5	Caliche base	Y ✓ N	
0.5	5.5	5.0	Brown sand/clayey sand	Y ✓ N	
5.5	22.0	16.5	Caliche	Y ✓ N	
22.0	34.0	12.0	Tan brown sand/sandstone	Y ✓ N	
34.0	35.0	1.0	Tan brown sand/sandstone gravel	Y ✓ N	
35.0	44.0	9.0	Brown sand/sandstone	Y ✓ N	
44.0	47.0	3.0	Light brown sand w/gravel	Y ✓ N	
47.0	66.0	19.0	Light tan/brown sand/sandstone	Y ✓ N	
66.0	67.0	1.0	Brown sand/sandstone	Y ✓ N	
67.0	72.0	5.0	Light brown sand/sandstone	Y ✓ N	
72.0	83.0	11.0	Green/tan sandstone	Y ✓ N	
83.0	86.0	3.0	Yellow/brown and green/brown sandstone	Y ✓ N	
86.0	88.0	2.0	Conglomerated green/gray sandstone and gravel	Y ✓ N	
88.0	111.0	23.0	Green/gray sandstone	✓ Y N	
111.0	112.0	1.0	Gray silty shale	✓ Y N	
112.0	114.0	2.0	Dark reddish brown silty shale	✓ Y N	
114.0	115.0	1.0	Reddish brown sandstone	✓ Y N	
115.0	116.0	1.0	Dark reddish brown silty shale	✓ Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ 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:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

William B. Atkins

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

SIGNATURE OF DRILLER / PRINT SIGNEE NAME

5/7/2019

DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO. RA-12721	POD NO. 3	TRN NO. 645505	
LOCATION 34 2 Sec 28 T17S R32E		WELL TAG ID NO.	PAGE 2 OF 2

ENSOLUM

APPENDIX B

FORM 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	NAPP2307558601
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)* NAPP2307558601
Contact mailing address 1410 NW County Road, Hobbs, NM 88240	

Location of Release Source

Latitude 32.80370 Longitude -103.76860
(NAD 83 in decimal degrees to 5 decimal places)

Site Name MCA 301	Site Type
Date Release Discovered 2/23/2023	API# *(if applicable)* 30-025-24226

Unit Letter	Section	Township	Range	County
J	28	17S	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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 6.9	Volume Recovered (bbls) 0 bbls
	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: Internal corrosion caused a casing leak to develop on a shut-in injection well. The release migrated south from the well head (POR) into the southern pasture. The released occurred on and off pad. The source of the release has been stopped and the impacted area has been secured.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2307558601
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: [signature] Date: 3/16/2023

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

OCD Only

Received by: Jocelyn Harimon Date: 03/20/2023

NAPP2307558601

Pooled Fluids on the Surface								
	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			0.00	0.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle B				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								
	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	0.3	0.30	0.00	355.0	1.3	0.4	0.00	0.4
Rectangle B	0.5	0.30	0.00	175.0	1.3	0.4	0.00	0.4
Rectangle C	1.0	0.30	0.00	480.0	7.1	2.1	0.00	2.1
Rectangle D	0.5	0.30	0.00	745.0	5.5	1.7	0.00	1.7
Rectangle E	0.3	0.30	0.00	655.0	2.4	0.7	0.00	0.7
Rectangle F	0.3	0.30	0.00	1205.0	4.5	1.3	0.00	1.3
Rectangle G	0.1	0.30	0.00	315.0	0.3	0.1	0.00	0.1
Rectangle H	0.0	0.30	0.00	1000.0	0.5	0.1	0.00	0.1
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):	**6.87**	**0.00**	**6.87**

ASE VOLUME (bbls):	**6.9**

District I
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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

Action 198120

CONDITIONS

Operator: Maverick Permian LLC 1111 Bagby Street Suite 1600 Houston, TX 77002	OGRID: 331199
	Action Number: 198120
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	3/20/2023

Incident ID	NAPP2307558601
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?	51-100 (feet 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	NAPP2307558601
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: _____06/14/2023_____

email: _bryce.wagoner@mavresources.com _____ Telephone: ___928-241-1862_____

OCD Only

Received by: ____Jocelyn Harimon_____ Date: 06/15/2023

Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2307558601
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☐ Extents of contamination must be fully delineated.

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

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

Printed Name: _Bryce Wagoner_____ Title: _Permian HSE Specialist II_____

Signature: _____ Date: ___06/14/2023_____

email: _Bryce.Wagoner@mavresources.com_____ Telephone: __928-241-1862_____

OCD Only

Received by: Jocelyn Harimon Date: 06/15/2023

☐ Approved ☐ Approved with Attached Conditions of Approval see text box below - NV ☐ Denied ☐ Deferral Approved

Signature: Nelson Velez Date: 09/15/2023

Remediation plan is approved under the following conditions;

1. Variance request per 19.15.29.12C (4)(c)(ii) is denied due to it not meeting the 1000 feet of any "fresh water" well or spring.
   a. Fresh water is defined per 19.15.2.7F (3) NMAC: "Fresh water" to be protected includes the water in lakes and playas (regardless of quality, unless the water exceeds 10,000 mg/l TDS and it can be shown that degradation of the particular water body will not adversely affect hydrologically connected fresh ground water), the surface waters of streams regardless of the water quality within a given reach, and underground waters containing 10,000 mg/l or less of TDS except for which, after notice and hearing, it is found there is no present or reasonably foreseeable beneficial use that contamination of such waters would impair.
2. Soil samples must be collected outside of the release to confirm the lateral extent of the release.
3. All other proposal within this plan have been accepted.
4. Operator must include site characterization supporting documentation in its final closure report.
5. Maverick Permian has 60-days to submit its appropriate or final closure report.

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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 228040

CONDITIONS

Operator: Maverick Permian LLC 1000 Main Street, Suite 2900 Houston, TX 77002	OGRID: 331199
	Action Number: 228040
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Remediation plan is approved under the following conditions; 1. Variance request per 19.15.29.12C (4)(c)(ii) is denied due to it not meeting the 1000 feet of any “fresh water” well or spring. a. Fresh water is defined per 19.15.2.7F (3) NMAC: “Fresh water” to be protected includes the water in lakes and playas (regardless of quality, unless the water exceeds 10,000 mg/l TDS and it can be shown that degradation of the particular water body will not adversely affect hydrologically connected fresh ground water), the surface waters of streams regardless of the water quality within a given reach, and underground waters containing 10,000 mg/l or less of TDS except for which, after notice and hearing, it is found there is no present or reasonably foreseeable beneficial use that contamination of such waters would impair. 2. Soil samples must be collected outside of the release to confirm the lateral extent of the release. 3. All other proposal within this plan have been accepted.	9/15/2023
nvelez	4. Operator must include site characterization supporting documentation in its final closure report. 5. Maverick Permian has 90-days (December 14, 2023) to submit its appropriate or final closure report.	9/15/2023