
October 1, 2025

EMNRD – Oil Conservation Division
506 W. Texas
Artesia, New Mexico 88210

SUBJECT: Liner Inspection and Closure Report for Green Wave 20 CTB 3 – September 12, 2025 Site Visit

Incident ID: nAPP2519538516
Facility ID (Name): fAPP2130250168 (GREEN WAVE 20 CTB 3)
Facility Location: Unit F of Section 20, Township 26 South, Range 34 East, New Mexico
Facility GPS Coordinates: 32.032151, -103.493706
Lea County, New Mexico

Introduction

KLJ Engineering (KLJ) has prepared this report on behalf of Devon Energy Production Company, LP (Devon) to detail the recent liner inspection conducted at the Green Wave 20 CTB 3 (Site) on September 12, 2025, following the release of produced water that occurred on July 13, 2025.

Site Information and Background

The Site is located approximately 17.58 miles southwest of Jal, New Mexico, on Bureau of Land Management (BLM) federal property. The Site lies within Unit F of Section 20, Township 26 South, Range 34 East, in Lea County. KLJ conducted a liner inspection and associated site characterization in accordance with 19.15.29.11 and 19.15.29.12 of the New Mexico Administrative Code (NMAC) to assess the integrity of the containment system and evaluate any potential environmental impacts resulting from a release.

Release Description and Immediate Response

On July 13, 2025, a Devon lease operator discovered a water transfer pump seal leaking inside the secondary containment, resulting in the release of approximately 215 barrels (bbls) of produced water. Initial response actions were conducted by the operator and included source elimination, photographic documentation of the affected area, volume estimation, and an attempt to recover released fluids. Photographic documentation of the secondary containment, liner, tanks, and equipment where the release occurred is included in the Liner Inspection Field Notes & Photolog Report (**Appendix A**).

The July 13, 2025 release exceeded 25 bbls and was classified as a *major release* under 19.15.29.7(A)(1) NMAC, requiring enhanced notification procedures. In compliance with 19.15.29.10(A) NMAC, Devon provided verbal and email notification to the New Mexico Oil and Gas Division (NMOGD) Environmental Bureau Chief and the appropriate Division District Office within 24 hours of discovery. A Form C-141 for the incident was submitted on July 14, 2025, in accordance with 19.15.29.10(A)(2) and 19.15.29.10(B) NMAC. The Form C-141 confirmed prior notifications and provided updated release details, fulfilling major release reporting requirements.

Site Characterization Summary

The Site lies within Qe/Qp – Holocene to late Pleistocene, with a physiographic setting characteristic of southern High Plains Margin, reflecting alternating episodes of fluvial and aeolian deposition. Terrain for the Site and immediate surrounding area includes fan piedmonts, alluvial fans, and dunes at elevations ranging from 2,800 to 5,000 feet above mean sea level (amsl). Parent material consists of mixed alluvium and/or eolian sands derived from sedimentary rock. Soil within the Site tends to be well-drained, with negligible runoff and low water-holding capacity, with an average annual precipitation of 8 to 13 inches.

The USDA – Web Soil Survey (WSS) identifies the predominant soil type at the Site as the Pyote and Maljamar fine sands that is moderately deep or very deep, with surface textures ranging from loamy fine sand, fine sandy loam, loamy very fine sand, or gravelly sandy loam. Subsurface is a loamy fine sand, coarse sandy loam, fine sandy loam, or loam that averages less than 18 percent clay and less than 15 percent carbonates. Substratum includes a fine sandy loam or gravelly fine sandy loam with less than 15 percent gravel and with less than 40 percent calcium carbonate. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches.

Vegetation reflects a grassland community, consisting of black grama, dropseeds, and bluestems with scattered broom snakeweed, sand sage, shinnery oak, and mesquite. The vegetation reflects a drought-tolerant, arid-adapted community, with grass cover varying based on grazing intensity and precipitation patterns. The Site supports a mix of warm-season perennials adapted to sandy soils and shallow rooting depths, forming a stable plant community under proper grazing management.

No surface water features were identified within 300 feet of the Site. The nearest significant watercourse is 1.59 miles northeast; the closest playa lake and wetland is 1.73 miles northeast (USFWS NWI, 2025). These distances comply with the requirements of 19.15.29.12(C)(4) NMAC.

Per the New Mexico Office of the State Engineer (NMOSE) Points of Diversion (POD) Map, the nearest POD is C-04583, located 1.72 miles northeast of the Site. The POD is identified as a temporary borehole used to determine depth to groundwater. Well records indicate that the temporary borehole was drilled to a depth of 55 ft below ground surface (bgs), and no groundwater was encountered. The nearest freshwater well used for stock watering purposes, POD C-02295, is located 2.21 miles northwest of the Site.

The Site is not located within a designated karst potential zone. The nearest potential karst zone, identified as a medium karst zone, is located 1.93 miles to the northwest. The Site is in a FEMA flood hazard area identified as FEMA Zone D (undetermined hazard); the nearest identified FEMA flood hazard area, classified as Zone A, is 13.7 miles to the west.

Additional information detailing the results of the Site characterization findings can be found in **Appendix B**.

Closure Criteria

Table 1 summarizes key Site and Incident information relevant to closure evaluation, as required under 19.15.29.12 NMAC. This includes details such as release source, location, containment status, and site-

specific features that may influence closure requirements. While contamination thresholds, sampling depths, and applicable concentration limits are not listed in this table, the information provided supports regulatory assessment of whether the release meets criteria for closure. In accordance with NMAC 19.15.29.11(A)(5)(b), if the release occurred within lined, impermeable secondary containment with no evidence of escape, it may qualify for reduced remediation requirements or a No Further Action (NFA) determination.

Table 1: Release Information and Closure Criteria Limits			
Depth to Ground Water Determination: < 50 feet bgs			
Site Name	Green Wave 20 CTB 3	Company	Devon Energy Production Company, LP
Facility ID/API Number	fAPP2130250168	PLSS GPS	F-20-26S-34E 32.032151, -103.493706
Lease ID	NMNM138037	Land Status	Federal
Incident ID	nAPP2519538516	Date Of Release	7/13/2025
Source of Release	Seal on WTP Failure	Volume Released/Recovered	215 bbls/215 bbls pw
Specific Features	DTGW Temporary Borehole: depth > 55 ft bgs; > 0.5-mile radius from facility; no karst potential; no surface water in proximity; FEMA Zone D		

Liner Inspection Activities

KLJ Environmental Specialists attempted to conduct a Site visit on August 21, 2025, to perform a liner inspection. Prior to the inspection, notification was provided to Devon via email on August 18, 2025, with official notification submitted through the Operator's Electronic Permitting and Payment Portal on the same day, in accordance with NMAC 19.15.29.11(A)(5)(a)(iii). On arrival, however, the liner was observed to have a presence of surface salt crystallization residue, making the liner unsuitable for inspection.

On August 22, 2025, an official notification was submitted to the NMOCD via email, stating that the August 21 inspection was not conducted due to the unsuitable condition of the liner. The notification also indicated that the inspection would be rescheduled once the liner had been cleaned. A copy of this correspondence is provided in Appendix C.

A second official notification was submitted to the portal on September 9, 2025, for the successful inspection conducted on September 12, 2025. A copy of this notification is also provided in **Appendix C**. On September 12, 2025, KLJ successfully completed the inspection following the liner being cleaned. The inspection included assessments for perforations, rips, tears, or signs of weathering that could impact containment integrity. No issues were noted that would warrant repair or replacement. Photographic documentation is provided in the Liner Inspection Field Notes & Photolog Report (**Appendix A**).


Conclusion

Based on the findings of the liner inspection, KLJ concludes that liner integrity is adequate to contain fluids and there are no further actions required in relation to incident nAPP2519538516.


Based on the site assessment and activities conducted, Devon respectfully requests closure of incident nAPP2519538516 with a No Further Action (NFA) determination.

Submitted and prepared by:
KLJ Engineering

Written By
Name: Monica Peppin
Title: Environmental Specialist II

Signature:  _____

Reviewed By
Name: Will Harmon, P.G.
Title: Environmental Project Manager

Signature:  _____

Included Appendices

Appendix A – LINER INSPECTION FIELD NOTES & PHOTOLOG REPORT
Appendix B – CLOSURE CRITERIA RESEARCH
Appendix C – CORRESPONDENCE


APPENDIX A

LINER INSPECTION FIELD NOTES & PHOTOLOG REPORT

Environmental Liner Inspection Field Notes & Photolog Report



Site & Incident Information

Client:	Devon Energy	Date:	9.12.2025
Site:	Green Wave 20 CTB 3	Arrival Time:	10:20 AM
Incident ID:	nAPP2519538516		
Client Contact:	Jim Raley		
Land Status:	BLM		
County:	Lea		
Lease ID:	NMNM114991		
Facility ID:	fAPP2130250168		
32.032151, -103.493706		Photo of Lease Sign	

Observations and Field Notes

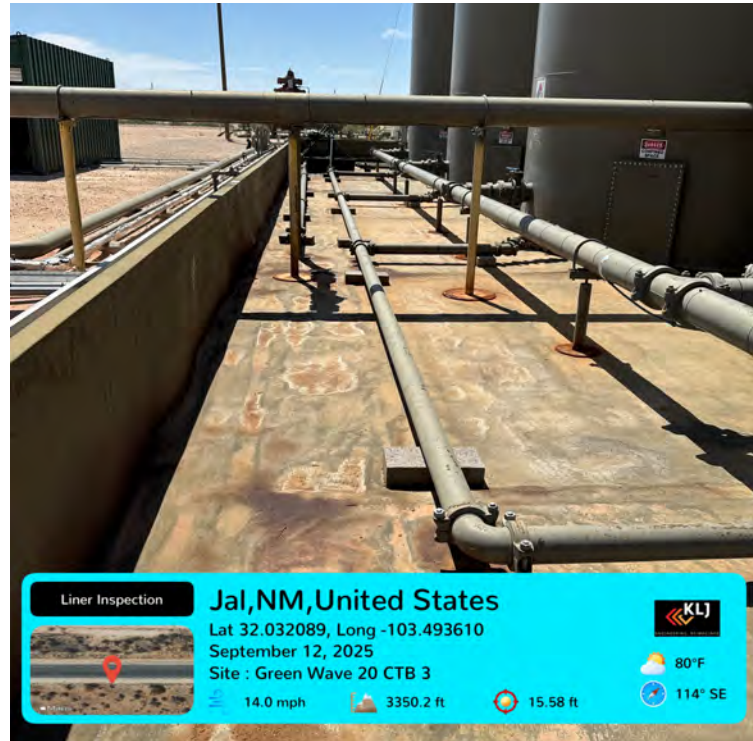
- 10:20 AM - Arrived on site and completed JHA; checked surroundings for immediate hazards, check in with supervisor of arrival on site.
- 10:30 AM - Begin inspection by walking perimeter of containment.
- 10:34 AM - Checked for punctures, rips, abrasions, and stress indicators for signs of any liner degradation.
- 10:42 AM - Inspected liner for weathering, brittleness, and indications of separating.
- 10:45 AM - Liner surface appears structurally sound. No visible perforations, tears, or areas of concern.
- 10:51 AM - Photographs collected from all cardinal directions, between tanks, and equipment at multiple angles.



Photolog



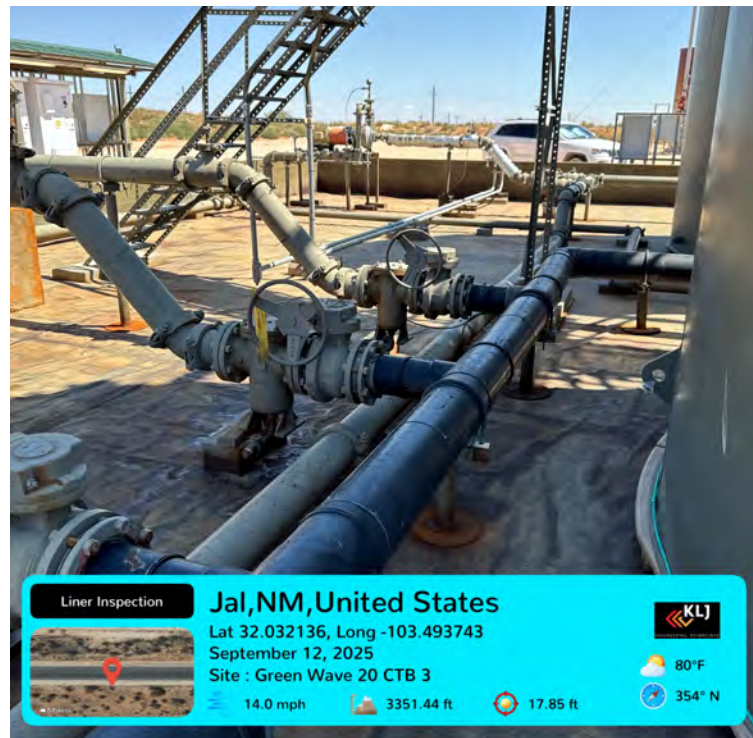
Facing northwest from east wall viewing liner near equipment and piping.



Facing south from the northeast corner viewing liner on east wall.



Liner between tanks from north end facing south under catwalk.



Northeast view of liner near transfer pumps and piping from west side.



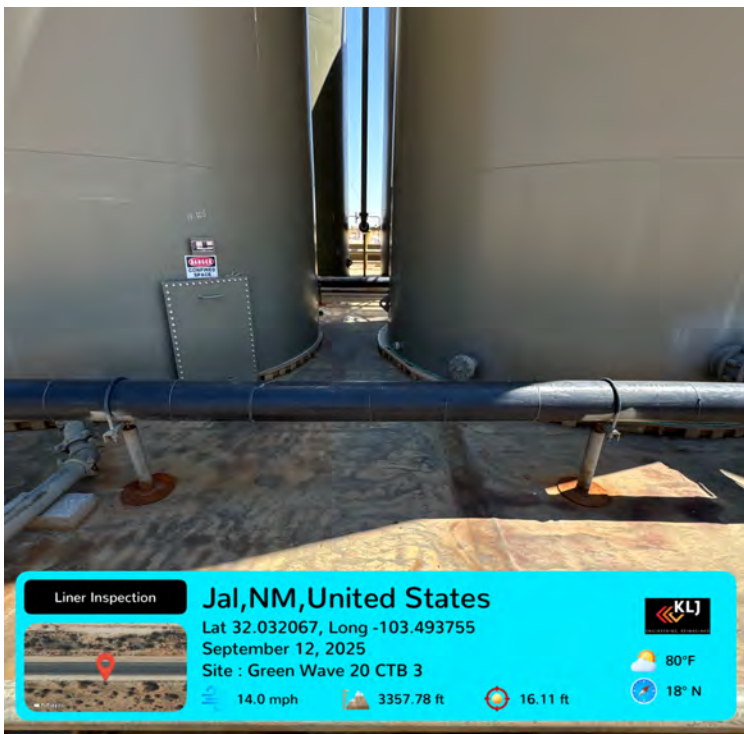
Photolog



Facing south from northwest corner viewing west wall and liner under equipment and piping.



Liner under equipment on north side of containment.



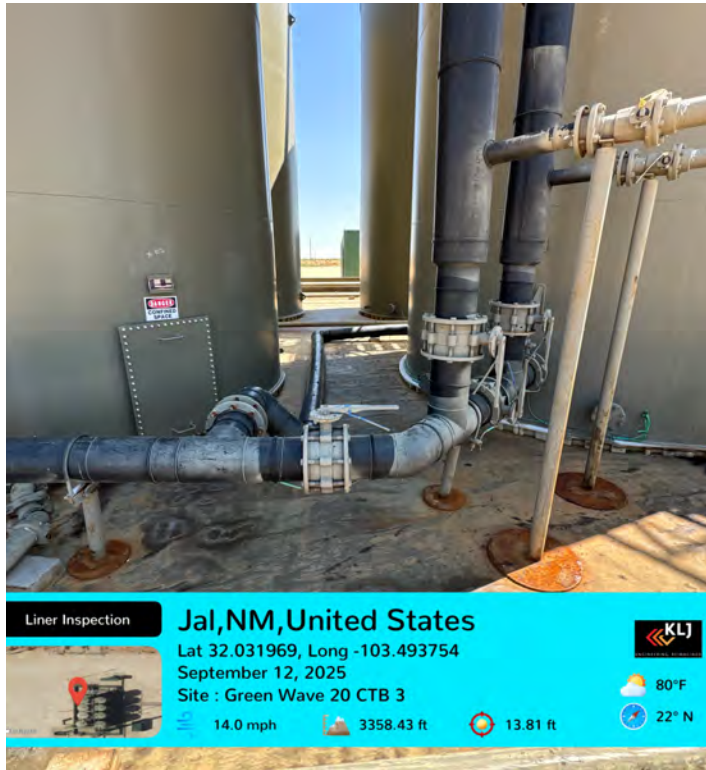
Between tanks facing east from west side.



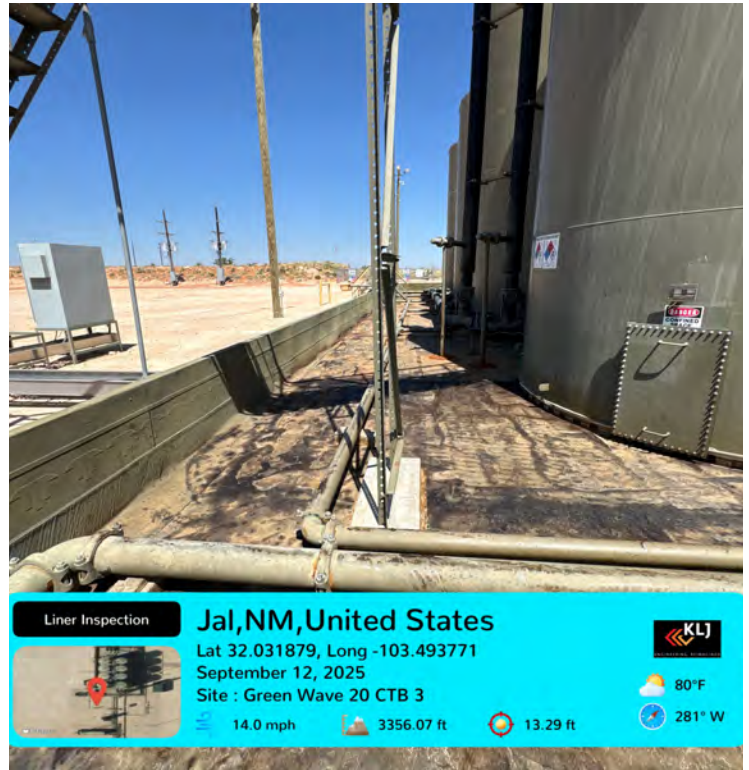
South end of containment between facing east.



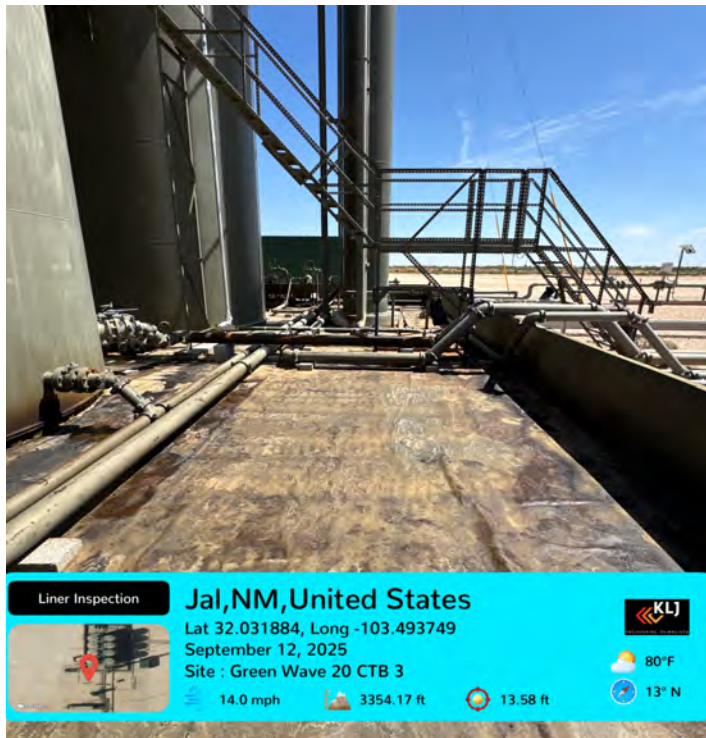
Photolog



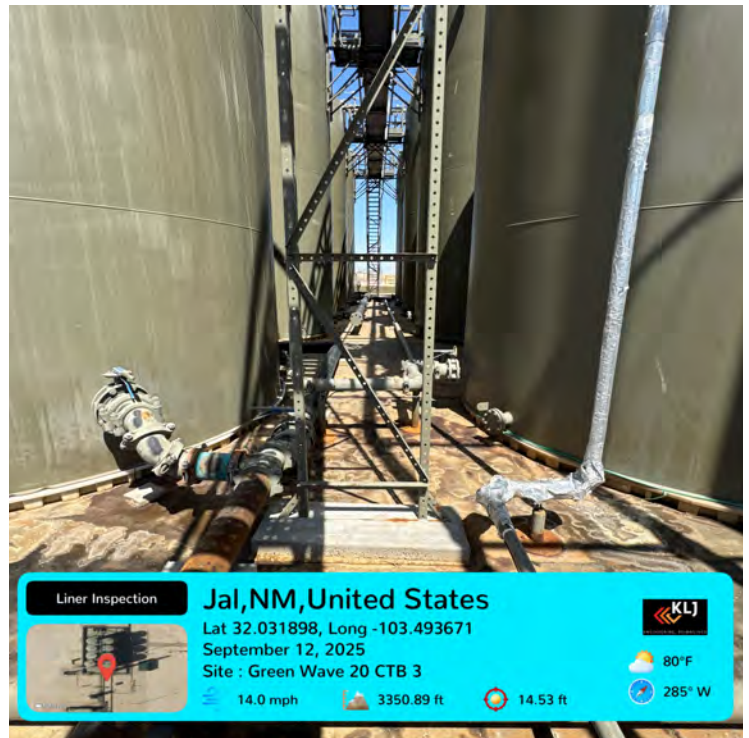
Liner between tanks facing east from west side.



Liner on south wall facing west from southeast corner.



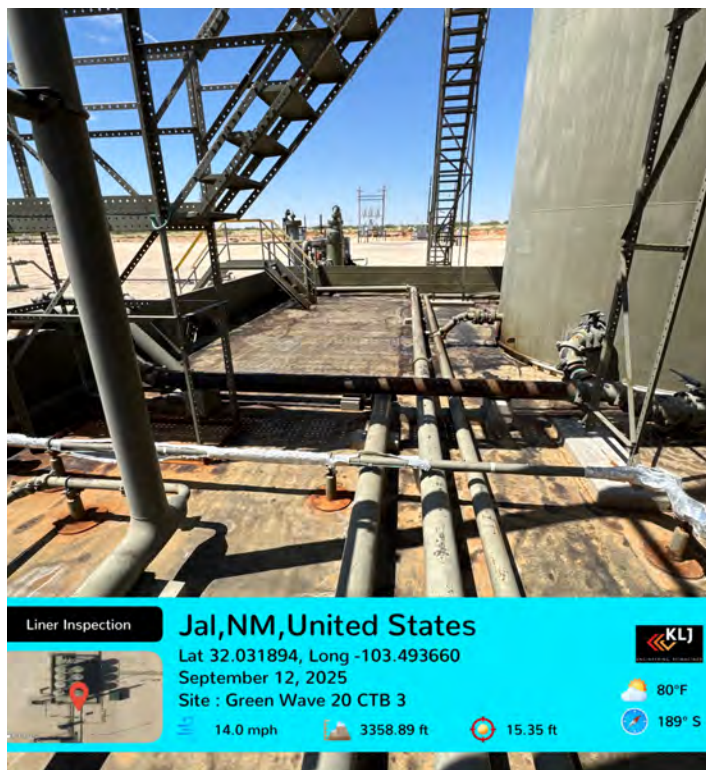
Liner on west wall facing south.



Liner between tanks facing south from north side under catwalk.



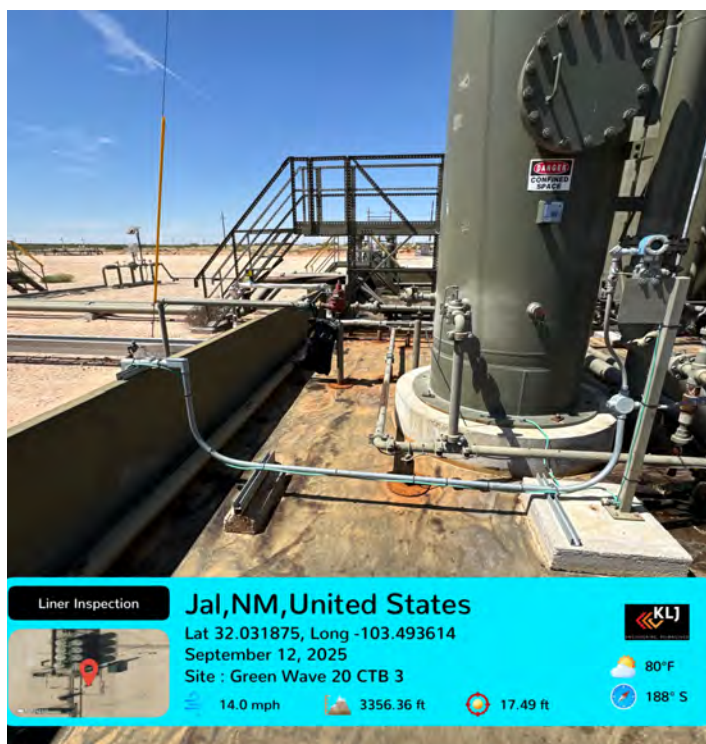
Photolog



Facing west viewing liner on north side of containment.



Liner on east wall facing north from south end.



Facing west on south wall viewing liner near equipment in containment.



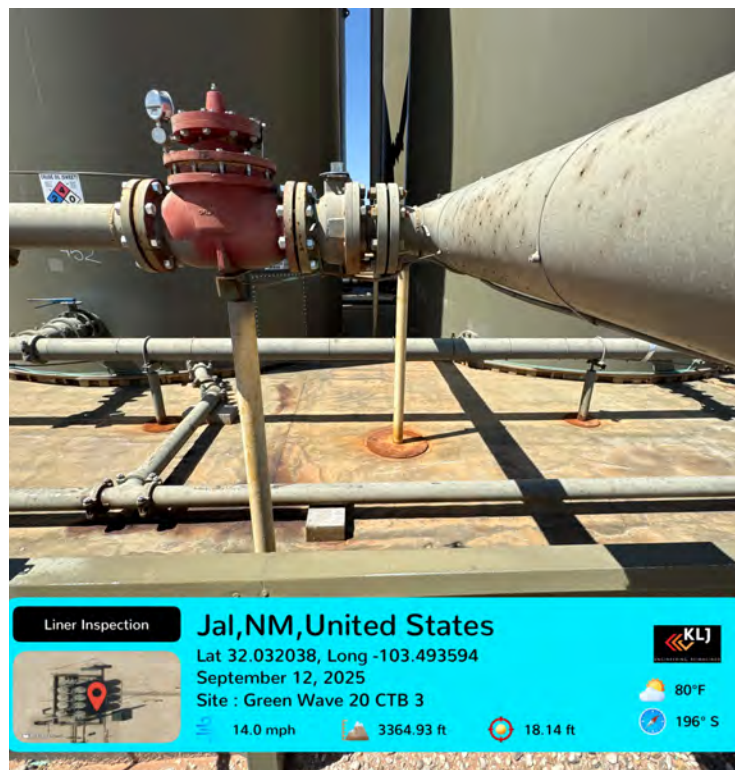
Liner near southeast corner facing west.



Photolog



Liner between tanks from east side facing west.



Liner between tanks near middle area on east side facing west.



Liner facing west near transfer pumps on north end of containment.

Additional Notes & Recommendations

- Visual observation supported with photo documentation.
- No issues identified; liner integrity confirmed and meets closure criteria.
- Upload photos and notes to project folder for final reporting.
- Submit final closure report for review to applicable regulatory agencies.

Acknowledgement & Signature

Technician: Monica Peppin

Date: September 12, 2025

Signature: 

Departure
Time: 11:54 AM

APPENDIX B

CLOSURE CRITERIA RESEARCH



Green Wave 20 CTB 3

Incident ID: nAPP2519538516

Coordinates: 32.032151, -103.493706

Containment Area: Approx. 6,400 sq ft

Legend

-  Containment Area
-  Green Wave 20 CTB 3

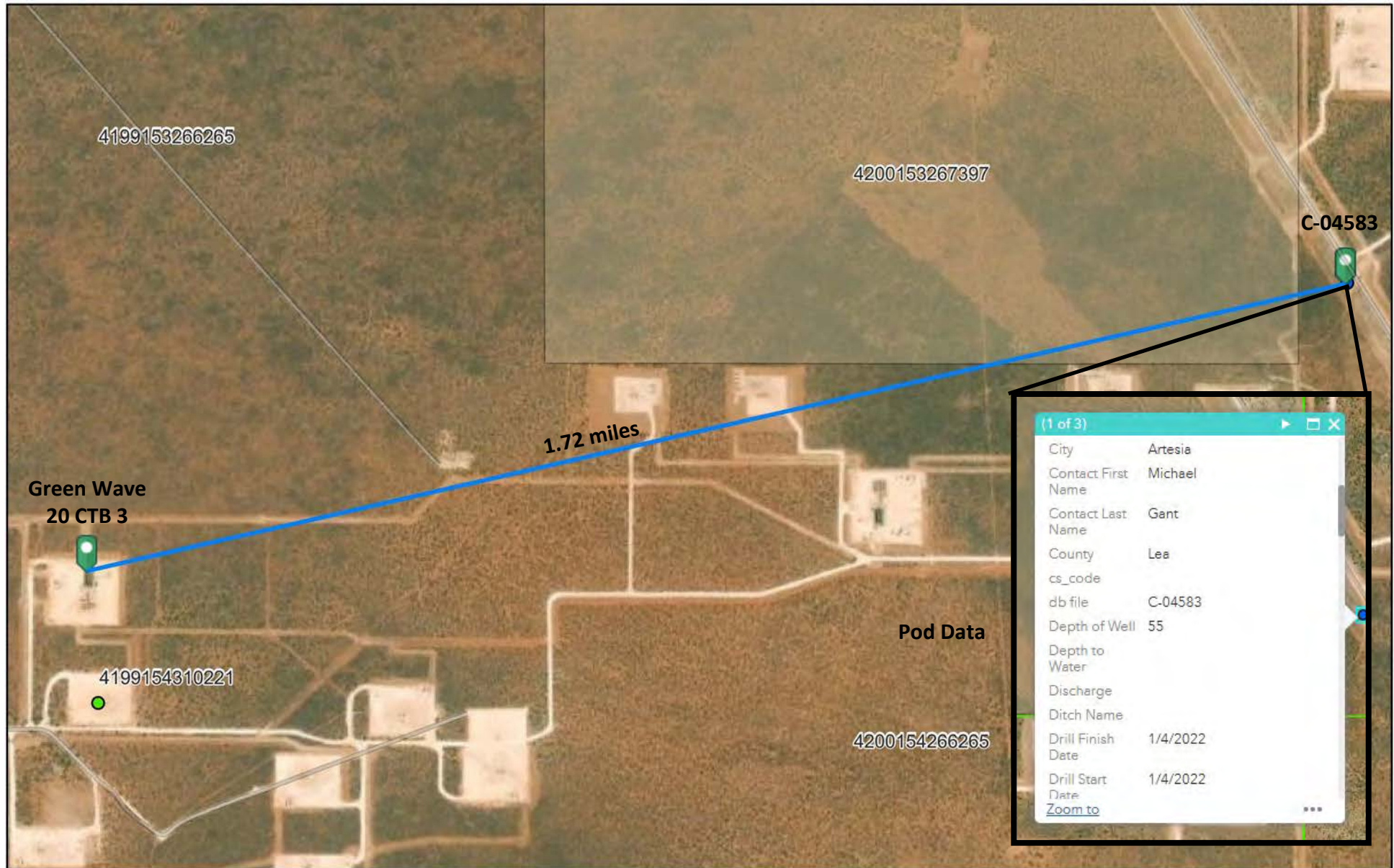
Google Earth

Image © 2025 Airbus



400 ft

Green Wave 20 CTB 3 Nearest DTGW Pod Map

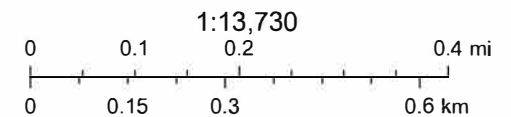


9/17/2025, 1:50:28 PM

— Override 1 ● Active New Mexico State Trust Lands

GIS WATERS PODs □ OSE District Boundary Subsurface Estate

● Pending



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Maxar

Online web user

This is an unofficial map from the OSE's online application.

File No. C-4583



NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well (Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input checked="" type="checkbox"/> Other(Describe): Groundwater Determination
<input type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

<input type="checkbox"/> Temporary Request - Requested Start Date:	Requested End Date:
--	---------------------

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

1. APPLICANT(S)

Name: Lucid Energy Group	Name:
Contact or Agent: <input type="checkbox"/> check here if Agent Michael Gant	Contact or Agent: <input type="checkbox"/> check here if Agent
Mailing Address: 201 S 4TH St.	Mailing Address:
City: Artesia	City:
State: NM Zip Code: 88210	State: Zip Code:
Phone: +1(575) 810 6144 <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work):	Phone: <input type="checkbox"/> Home <input type="checkbox"/> Cell Phone (Work):
E-mail (optional): mgant@lucid-energy.com	E-mail (optional):

FOR OSE INTERNAL USE

Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-4583	Trn. No.: 713387	Receipt No.: 2-44009
Trans Description (optional): MON		
Sub-Basin: C	PCW/LOG Due Date: 12/20/2022	

Page 1 of 3

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
 ☐ UTM (NAD83) (Meters)
 ☒ Lat/Long (WGS84) (to the nearest 1/10th of second)

☐ NM West Zone
 ☐ Zone 12N

☐ NM East Zone
 ☐ Zone 13N

☐ NM Central Zone

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves , Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
C- 4583 POD1(TW-1)	103°27'54.67"W	32° 2'15.69"N	SW SW SW Sec. 15T26S R34E, NMPM

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)

Additional well descriptions are attached: ☐ Yes ☒ No **If yes, how many** _____

Other description relating well to common landmarks, streets, or other:

Well is on land owned by: Bureau of Land Management

Well Information: **NOTE: If more than one (1) well needs to be described, provide attachment.** Attached? ☐ Yes ☒ No
 If yes, how many _____

Approximate depth of well (feet): 55	Outside diameter of well casing (inches): 2.375
Driller Name: Jackie D. Atkins	Driller License Number: 1249

A Soil Boring to determine depth up to 155 feet. Temporary PVC well material will be placed to total depth and secured at surface. Temporary well will be in place for minimum of 72 hours. If ground water is encountered the boring will be plugged immediately using augers as tremie to land a slurry of Portland TYPE I/II Neat cement less than 6.0 gallons of water per 94 lb. sack. If no water is encountered then drill cuttings will be used to (10) ten feet of land surface and plugged using hydrated bentonite.

Application for Permit, Form WR-07

Trn No.: 713385

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: <input type="checkbox"/> Include a description of any proposed pump test, if applicable.	Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> The method of measurement of water produced and discharged.	Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.	Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water. <input type="checkbox"/> The method of measurement of water diverted.
Monitoring: <input type="checkbox"/> Include the reason for the monitoring well, and, <input type="checkbox"/> The duration of the planned monitoring.	<input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	Ground Source Heat Pump: <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	<input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Michael Gant

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

M. Gant

Applicant Signature

Applicant Signature



ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 20 day of Dec 20 21, for the State Engineer,

John R. D'Antonio Jr., P.E., State Engineer

By: K. Parekh
Signature

Print

Title: Water Resources
Print

Kashyap Parekh
Manager I.

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: C-4583

Trn No.: 713387

Page 3 of 3

**NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE**

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Trn Desc: C 04583 POD1

File Number: C 04583

Trn Number: 713387

**NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE**

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion C 04583 POD1 must be completed and the Well Log filed on or before 12/20/2022.

IT IS THE PERMITTEES RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 11/17/2021	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 20 day of Dec A.D., 2021

John R. D Antonio, Jr., P.E., State Engineer

By: K. Parekh

KASHYAP PAREKH



Trn Desc: C 04583 POD1

File Number: C 04583

Trn Number: 713387

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**NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE**

SPECIFIC CONDITIONS OF APPROVAL

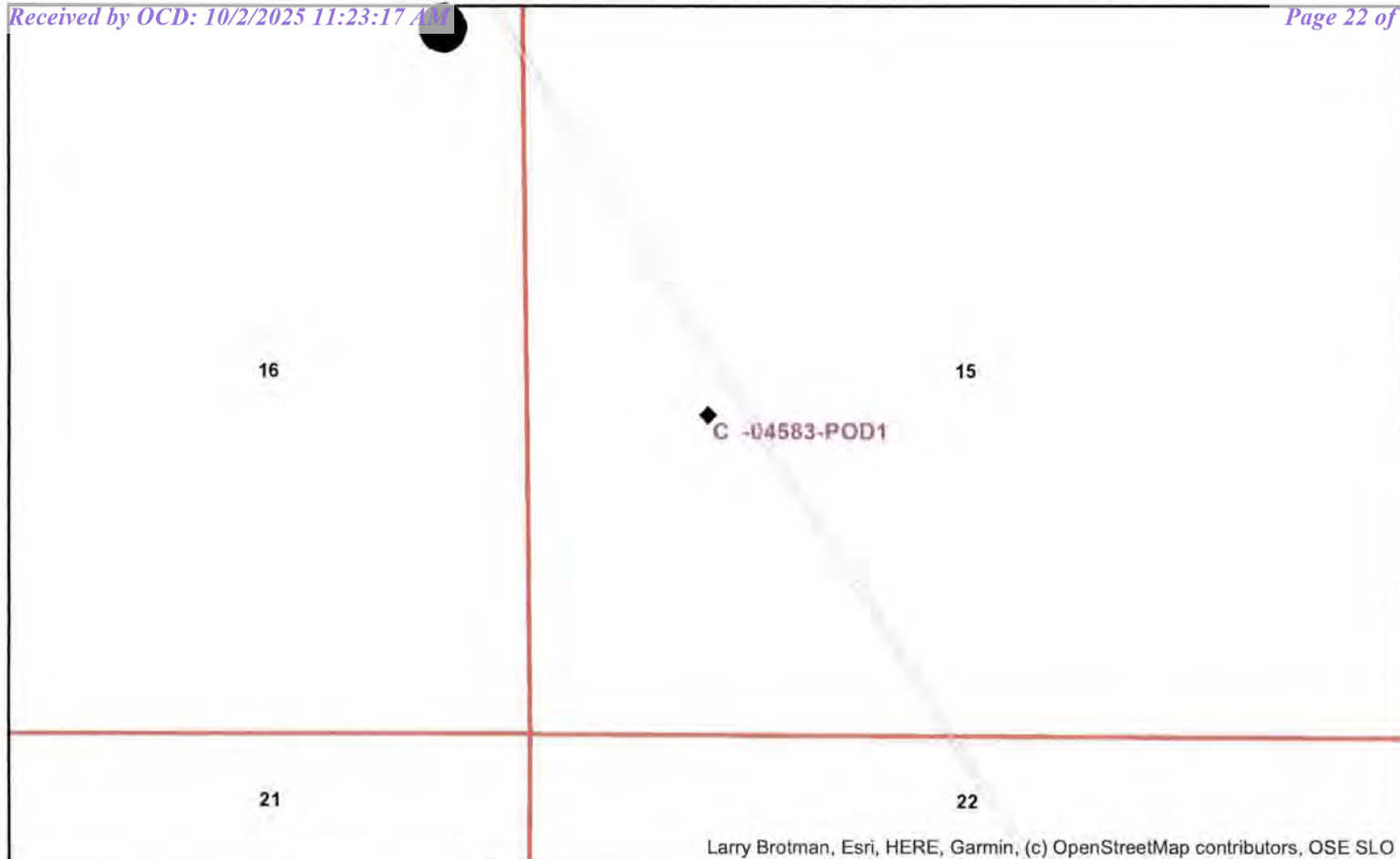
- 17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.
- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: C 04583 POD1

File Number: C 04583

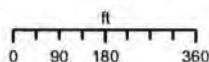
Trn Number: 713387

page: 1



NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514



N



GUILLEN

12/20/2021



Disclaimer: While the State Engineer's Office has made every effort to ensure the accuracy of the information presented in this report, it is not a guarantee of accuracy. The State Engineer's Office is not responsible for any errors or omissions in this report. The user assumes all responsibility for the use of the information presented in this report. The State Engineer's Office is not responsible for any damages or losses resulting from the use of the information presented in this report.

Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 644920.541

Northing 3545642.785

State Plane - NAD 83 (f) - Zone F

Easting 810349.998

Northing 378529.861

Degrees Minutes Seconds

Latitude 32 : 2 : 15.690000

Longitude -103 : 27 : 54.670000

Location pulled from Coordinate Search

Spatial Information

County: Lea

Groundwater Basin: Carlsbad

Abstract Area: Carlsbad 72-12-1

Carlsbad Underground Basin

Land Grant:
Not in Land Grant

Restrictions:

PLSS Description

NESWSWSW Qtr of Sec 15 of 026S 034E

Derived from CADNSDI- Qtr Sec. locations are
calculated and are only approximations

Parcel Information

UPC/DocNum:

Parcel Owner:

Address: null null null

Legal:

POD Information

Owner: LUCID

File Number: C-4583 POD1

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: MON

- ◆ Coord Search Location
- Recently Edited PODs
- Chaves County Parcels 2021
- Eddy County Parcels 2021
- Lea County Parcels 2021
- Sections



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM 88220-6292

In Reply Refer To:
3162.4 (NM-080)
NMNM094118

December 7, 2021

Lucid Energy Delaware
201 South 4th Street
Artesia, NM 88210

Re: Rattlesnake SWD
NRM1929839706
Section 16, T26S-R34E
32.037691,-103.465185
Lea County, New Mexico

To Whom It May Concern:

The above well location and the immediate area was impacted from a recent spill event. In order to fully delineate the impacted site, advanced soil boring will need to take place below ground surface via a truck-mounted rig with hollow stem auger equipment. The boring will be secured and left open for 72 hours at which time Lucid Energy Delaware will assess for the presence or absence of groundwater. The Bureau of Land Management (landowner) authorizes the access of the surface area to accomplish the determination of depth to groundwater and full delineation of this site.

If you have any questions contact Crisha Morgan, at 575-234-5987.

Sincerely,

Crisha Morgan

Crisha A. Morgan
Certified Environmental Protection Specialist



Rattlesnake SWD Pump Station boring
32.037691°, -103.465185°

Legend
Sundry Request Area

Mike A. Hamman, P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

**STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 713387
File Nbr: C 04583
Well File Nbr: C 04583 POD1

Feb. 14, 2022

MICHAEL GANT
LUCID ENERGY GROUP
201 S 4TH ST
ARTESIA, NM 88210

Greetings:

The above numbered permit was issued in your name on 12/20/2021.

The Well Record was received in this office on 02/04/2022, stating that it had been completed on 01/04/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 12/20/2022.

If you have any questions, please feel free to contact us.

Sincerely,

Azucena Ramirez
(575) 622-6521

drywell

John R. D Antonio, Jr., P.E.
State Engineer



Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

**STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 713387
File Nbr: C 04583

Dec. 20, 2021

MICHAEL GANT
LUCID ENERGY GROUP
201 S 4TH ST
ARTESIA, NM 88210

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- * If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- * If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
- * The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- * This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Claudia Guillen".

Claudia Guillen
(575) 622-6521

Enclosure

explore



PLUGGING RECORD



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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4583 POD1 (TW-1)

Well owner: Lucid Energy Group(Michael Gant)

Phone No.: 575-810-6144

Mailing address: 201 S 4th St.

City: Artesia

State: NM

Zip code: 88210

II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)
- 2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Lupe Leyba
- 4) Date well plugging began: 1/21/2022 Date well plugging concluded: 1/21/2022
- 5) GPS Well Location: Latitude: 32 deg, 2 min, 15.69 sec
Longitude: 103 deg, 27 min, 54.67 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 55.2 ft below ground level (bgl),
by the following manner: weighted tape
- 7) Static water level measured at initiation of plugging: n/a ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 12/20/2021
- 9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

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

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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 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4583			
	WELL OWNER NAME(S) Lucid Energy Group (Michael Gant)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 201 S 4th St.				CITY Artesia	STATE NM	ZIP 88210	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 12	SECONDS 38.03 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE 103	50	58.70 W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SW SW SW Sec.15 T26S R34E, NMPM								
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 1-4-2022	DRILLING ENDED 1-4-2022	DEPTH OF COMPLETED WELL (FT) temporary well material		BORE HOLE DEPTH (FT) 55	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) FROM TO		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0	55	±8.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL		AMOUNT (cubic feet)	METHOD OF PLACEMENT	

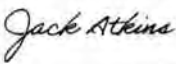
FOR OSE INTERNAL USE

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

FILE NO. C-4583	POD NO. 1	TRN NO. 713387
LOCATION 26S.34E.15 333	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	6	6	Sand, well graded, poorly sorted, subangular gravel, brown , dry	Y ✓ N	
	6	13.5	7.5	Caliche, poorly-cemented, fine-grained sandy matrix, gravel, light tan, dry	Y ✓ N	
	13.5	55	41.5	Sand, well graded, well sorted, subangular gravel, light brown , moist	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
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					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, Cameron Pruitt, Carmelo Trevino	

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:	
	 Jackie D. Atkins SIGNATURE OF DRILLER / PRINT SIGNEE NAME	OBE 011 FEB 4 2022 #10143 2/1/2022 DATE

FOR USE INTERNAL USE

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

FILE NO. <u>C-4583</u>	POD NO. <u>1</u>	TRN NO. <u>713387</u>
LOCATION <u>26S.34E.15 333</u>	WELL TAG ID NO.	PAGE 2 OF 2



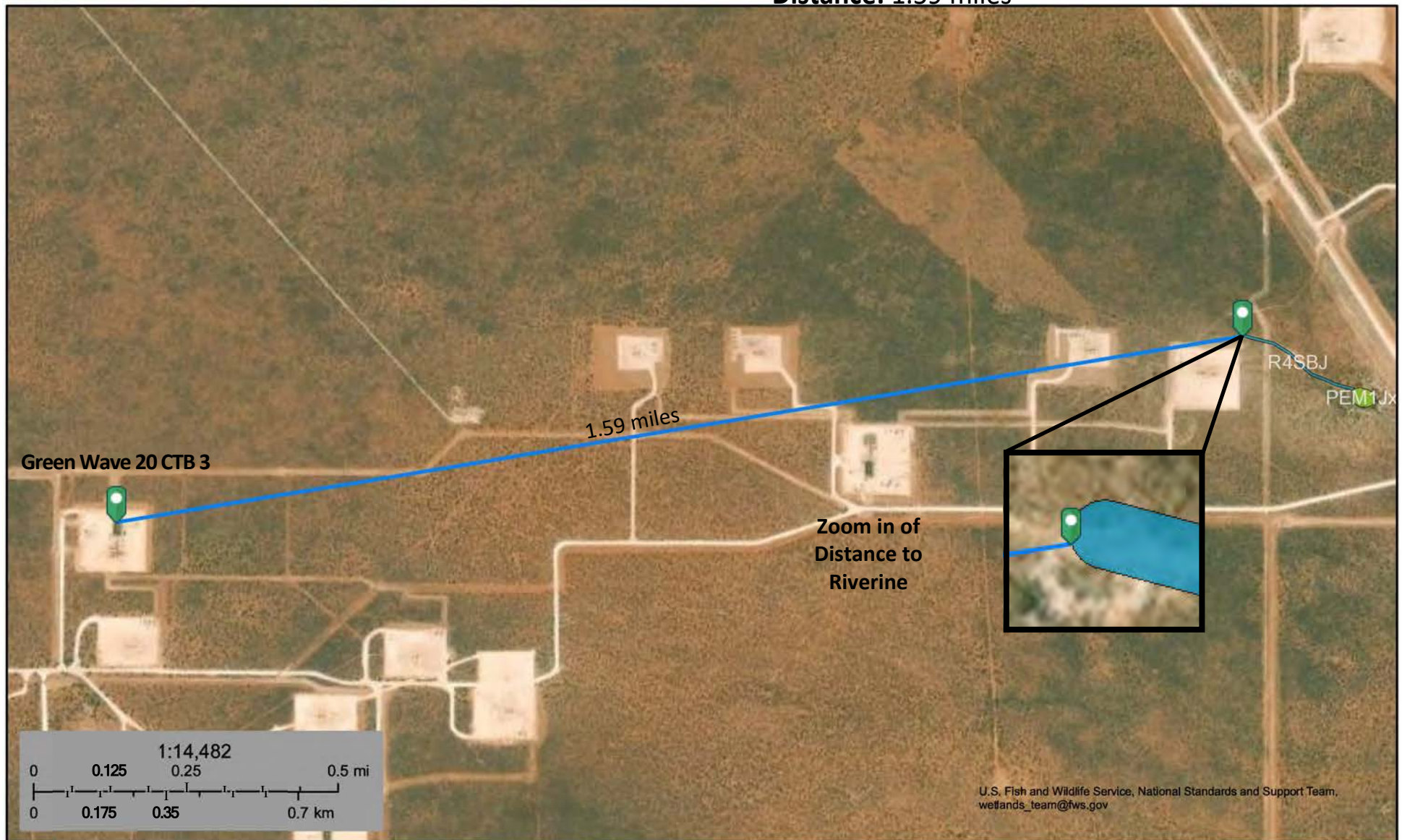
U.S. Fish and Wildlife Service

National Wetlands Inventory

Green Wave 20 CTB 3

Nearest Watercourse: Riverine

Distance: 1.59 miles



September 9, 2025

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

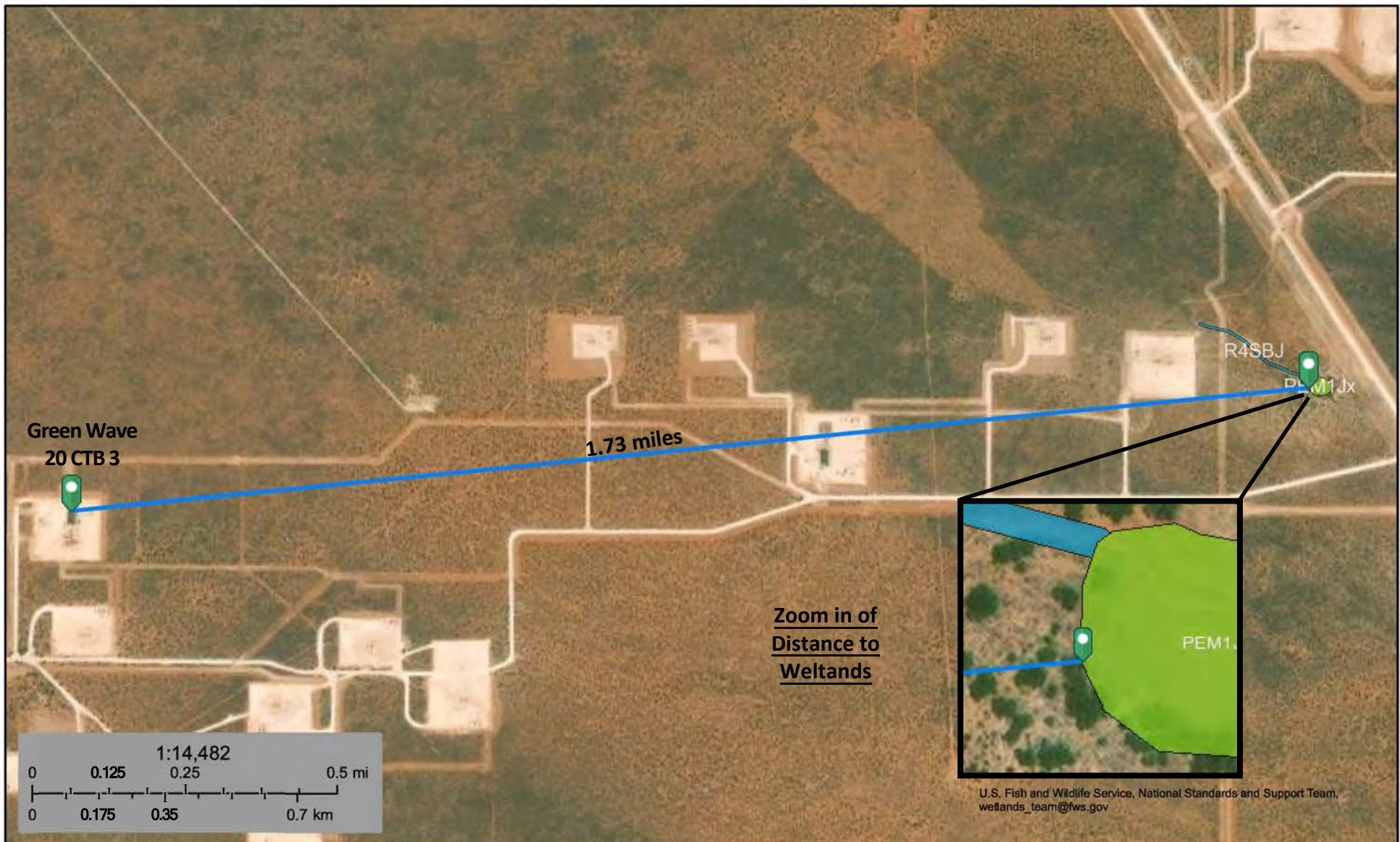
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



Green Wave 20 CTB 3

Wetlands Distance: 1.73 miles



September 9, 2025

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

Other



Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Green Wave 20 CTB 3

Distance to Nearest Residence: 3.22 miles

Legend

-  Distance to Residence
-  Green Wave 20 CTB 3

Residence

Green Wave 20 CTB 3

Google Earth

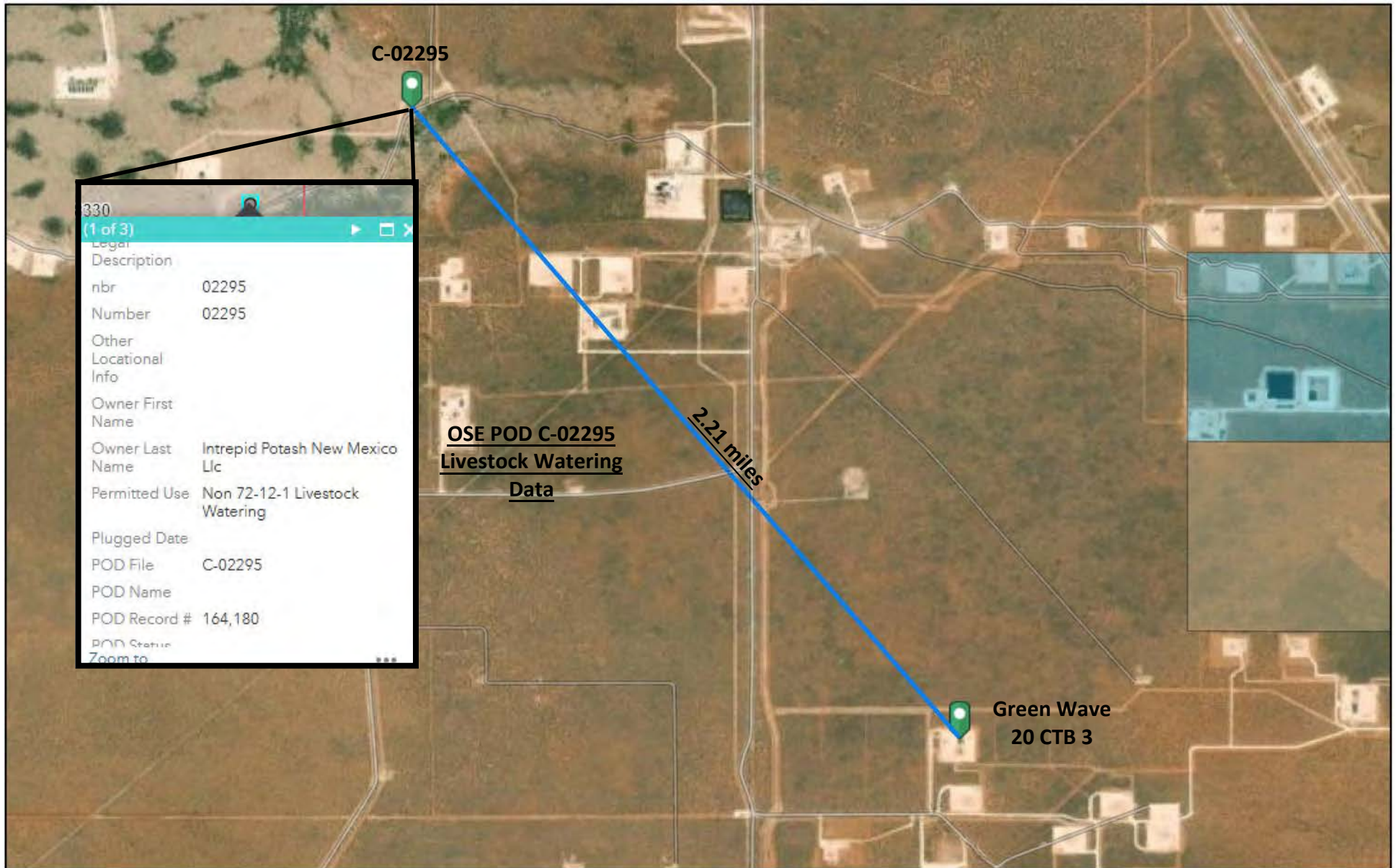
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Image © 2025 Airbus



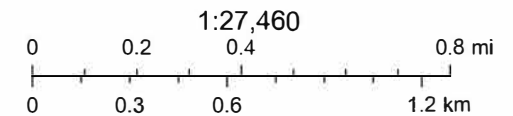
1 mi

Green Wave 20 CTB 3 - Nearest Domestic Well Map



9/17/2025, 5:28:34 PM

— Override 1
 — OSE District Boundary
 New Mexico State Trust Lands
 Both Estates
 Subsurface Estate



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Maxar




Online web user

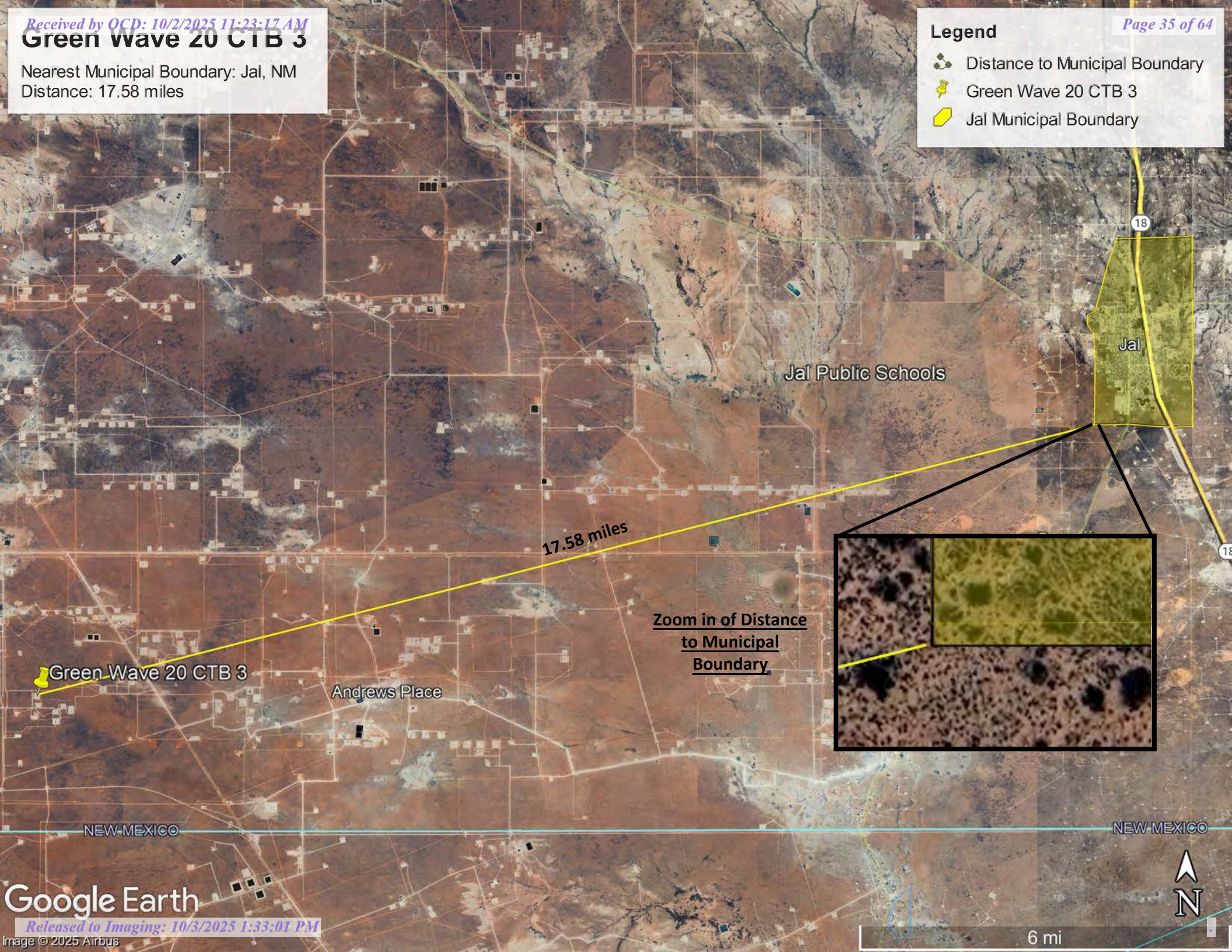
This is an unofficial map from the OSE's online application.

Green Wave 20 CTB 3

Nearest Municipal Boundary: Jal, NM
Distance: 17.58 miles

Legend

-  Distance to Municipal Boundary
-  Green Wave 20 CTB 3
-  Jal Municipal Boundary



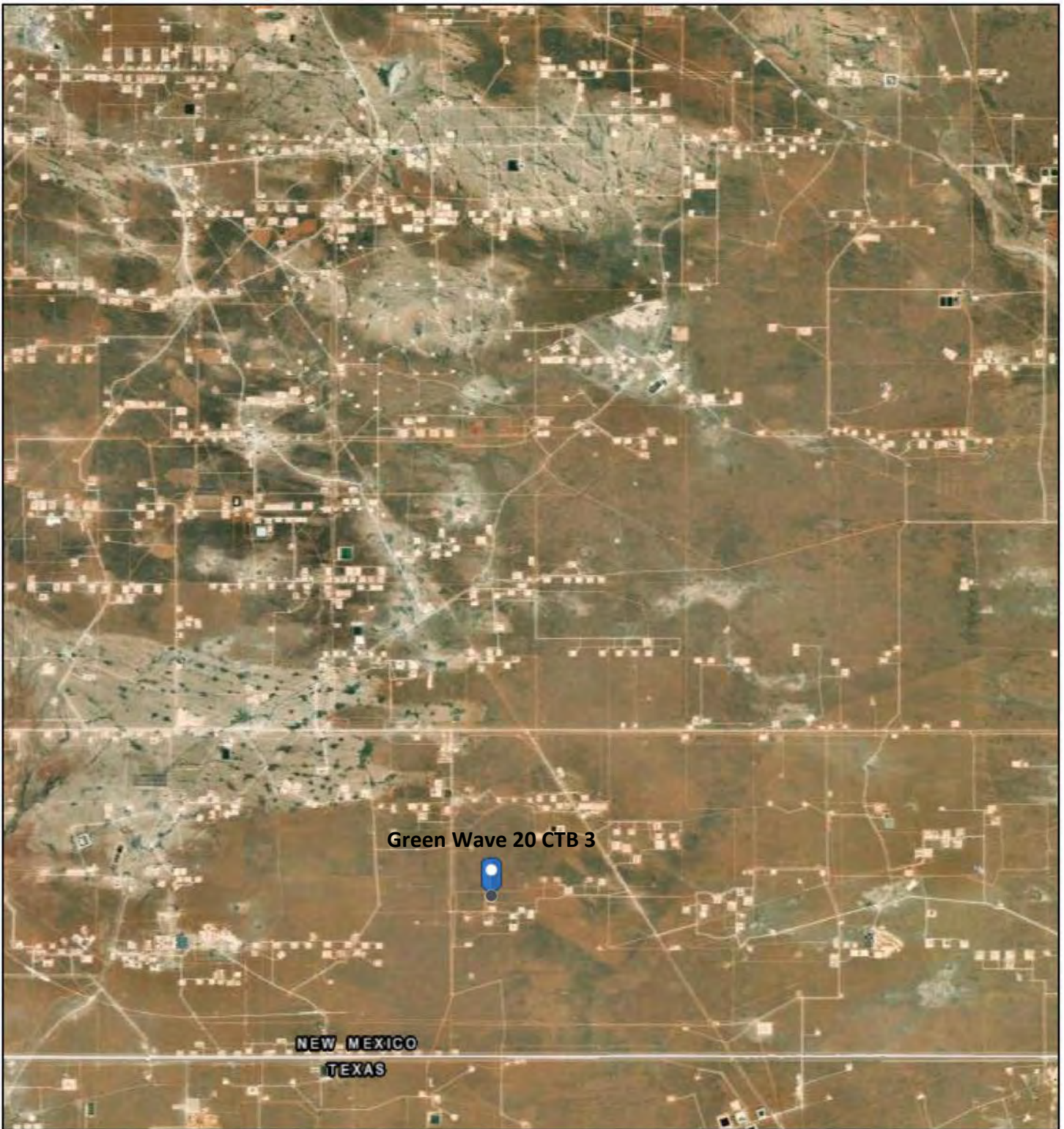
Zoom in of Distance
to Municipal
Boundary

NEW MEXICO

NEW MEXICO

Google Earth

Green Wave 20 CTB 3 - Mines Proximity Map

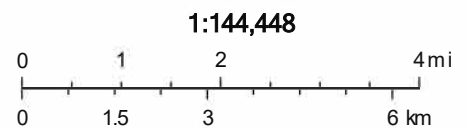


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Registered Mines

- ✕ Aggregate, Stone etc.
- ✕ Aggregate, Stone etc.

**No Active or
Registered Mines
within 5-mile Radius**



Esri. HERE. Garmin. Earthstar Geographies

Medium Karst Zone

1.93 miles

Green Wave
20 CTB 3

Green Wave 20 CTB 3 - Karst Potential Map

0 0.15 0.3 0.6
mi

New Mexico State Land Office

Disclaimer:

The New Mexico State Land Office assumes no responsibility or liability for, or in connection with the accuracy, reliability or use of the information provided herein with respect to State Land Office data or data from other sources.

Data pertaining to New Mexico State Trust Lands are provisional and subject to revision, and do not constitute an official record of title. Official records may be reviewed at the New Mexico State Land Office in Santa Fe, New Mexico.

Released to Imaging: 10/3/2025 1:33:01 PM

Map Created: 9/10/2025

User drawn lines

User drawn points

Karst_Potential_NM

Potential

Critical

High

Medium

Karst Potential

None

Nearest Karst Feature

Medium

Distance

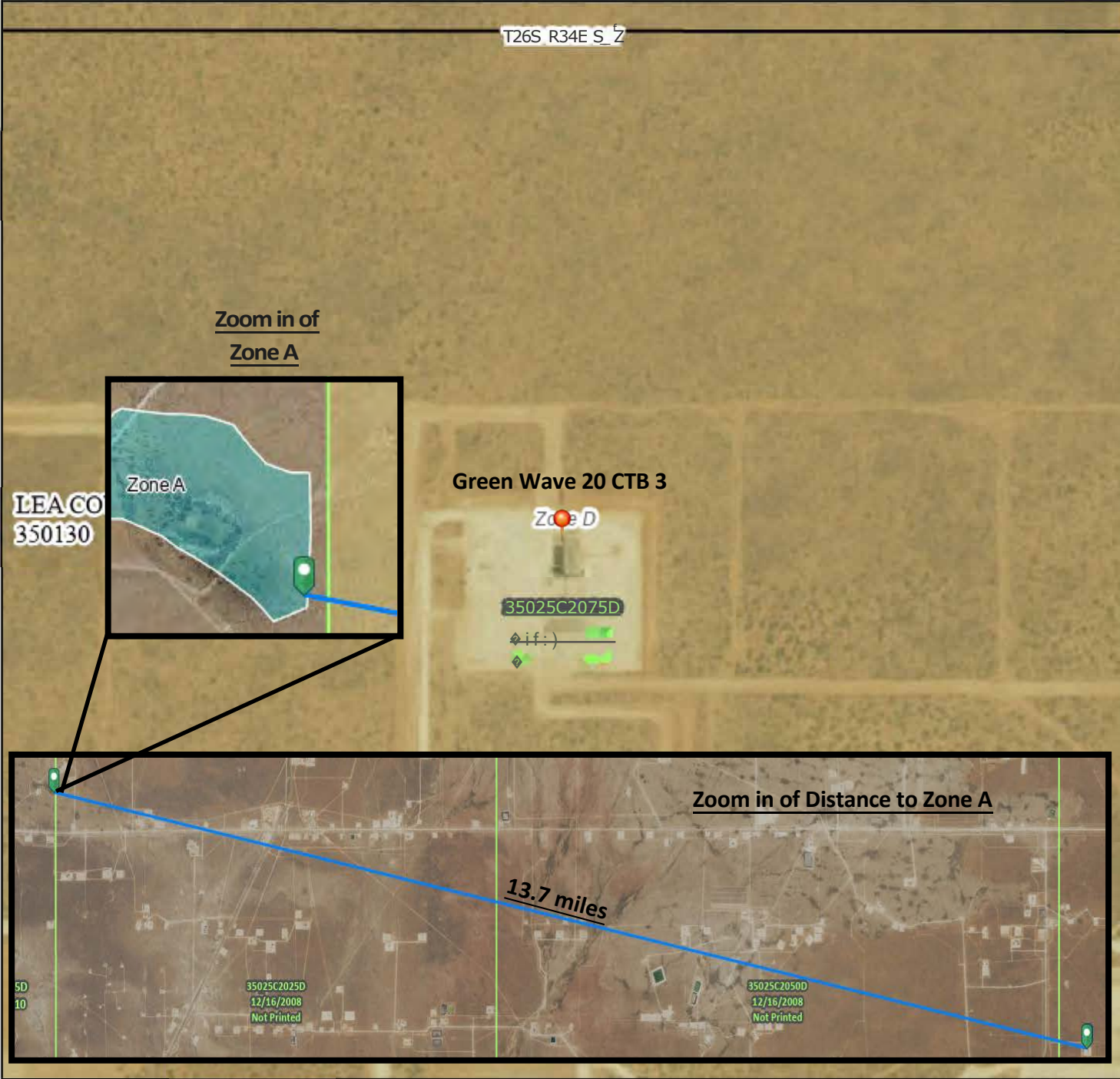
1.93 miles



National Flood Hazard Layer FIRMette



103° 29'56"W 32° 2'11"N



Zoom in of
Zone A

Green Wave 20 CTB 3

Zoom in of Distance to Zone A

13.7 miles

0 250 500 1,000 1,500 2,000 Feet

1:6,000

103° 29'19"W 32° 1'40"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile zone x
		Future Conditions 1% Annual Chance Flood Hazard zone x
		Area with Reduced Flood Risk due to Levee. See Notes. zone x
		Area with Flood Risk due to Levee zone O
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard zone x
		Effective LOMRs
		Area of Undetermined Flood Hazard zone O
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/9/2025 at 6:48 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Soil Map—Lea County, New Mexico



Map Scale: 1:1,540 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

Soil Map—Lea County, New Mexico

MAP LEGEND

- | Area of Interest (AOI) | |
|------------------------|------------------------|
| | Area of Interest (AOI) |
| Soils | |
| | Soil Map Unit Polygons |
| | Soil Map Unit Lines |
| | Soil Map Unit Points |
| Special Point Features | |
| | Blowout |
| | Borrow Pit |
| | Clay Spot |
| | Closed Depression |
| | Gravel Pit |
| | Gravelly Spot |
| | Landfill |
| | Lava Flow |
| | Marsh or swamp |
| | Mine or Quarry |
| | Miscellaneous Water |
| | Perennial Water |
| | Rock Outcrop |
| | Saline Spot |
| | Sandy Spot |
| | Severely Eroded Spot |
| | Sinkhole |
| | Slide or Slip |
| | Sodic Spot |
| | Spoil Area |
| | Stony Spot |
| | Very Stony Spot |
| | Wet Spot |
| | Other |
| | Special Line Features |
| Water Features | |
| | Streams and Canals |
| Transportation | |
| | Rails |
| | Interstate Highways |
| | US Routes |
| | Major Roads |
| | Local Roads |
| Background | |
| | Aerial Photography |

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 21, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PU	Pyote and Maljamar fine sands	9.8	100.0%
Totals for Area of Interest		9.8	100.0%

Map Unit Description: Pyote and Maljamar fine sands---Lea County, New Mexico

Lea County, New Mexico

PU—Pyote and Maljamar fine sands

Map Unit Setting

National map unit symbol: dmqq

Elevation: 3,000 to 3,900 feet

Mean annual precipitation: 10 to 12 inches

Mean annual air temperature: 60 to 62 degrees F

Frost-free period: 190 to 205 days

Farmland classification: Not prime farmland

Map Unit Composition

Pyote and similar soils: 46 percent

Maljamar and similar soils: 44 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pyote

Setting

Landform: Plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 30 inches: fine sand

Bt - 30 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High
(2.00 to 6.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Gypsum, maximum content: 1 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 2.0

Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e

Map Unit Description: Pyote and Maljamar fine sands---Lea County, New Mexico

Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Description of Maljamar

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand
Bt - 24 to 50 inches: sandy clay loam
Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 10 percent
Ecological site: R070BC022NM - Sandhills

Map Unit Description: Pyote and Maljamar fine sands---Lea County, New Mexico

Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico

Survey Area Data: Version 21, Sep 3, 2024

Ecological site R070BD003NM

Loamy Sand

Accessed: 09/10/2025

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Associated sites

R070BD004NM	Sandy Sandy
R070BD005NM	Deep Sand Deep Sand

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site is on uplands, plains, dunes, fan piedmonts and in inter dunal areas. The parent material consists of mixed alluvium and or eolian sands derived from sedimentary rock. Slope range on this site range from 0 to 9 percent with the average of 5 percent.

Low stabilized dunes may occur occasionally on this site. Elevations range from 2,800 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont (2) Alluvial fan (3) Dune
Elevation	2,800–5,000 ft
Slope	9%
Aspect	Aspect is not a significant factor

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity-short duration thunderstorms.

Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

The average frost-free season is 207 to 220 days. The last killing frost being late March or early April and the first killing frost being in later October or early November.

Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. Strong winds blow from the southwest from January through June, which accelerates soil drying during a critical period for cool season plant growth.

Climate data was obtained from <http://www.wrcc.sage.dri.edu/summary/climsmnm.html> web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

Table 3. Representative climatic features

Frost-free period (average)	221 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

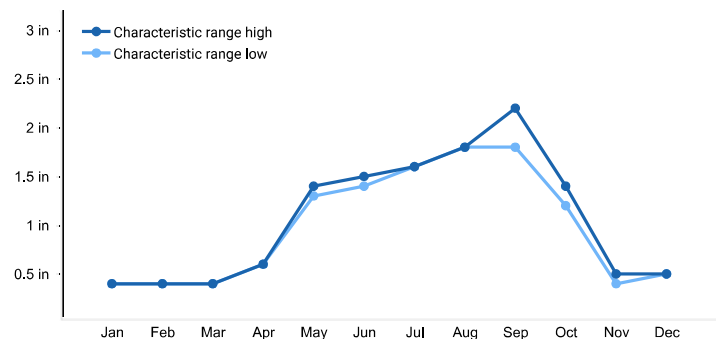


Figure 2. Monthly precipitation range

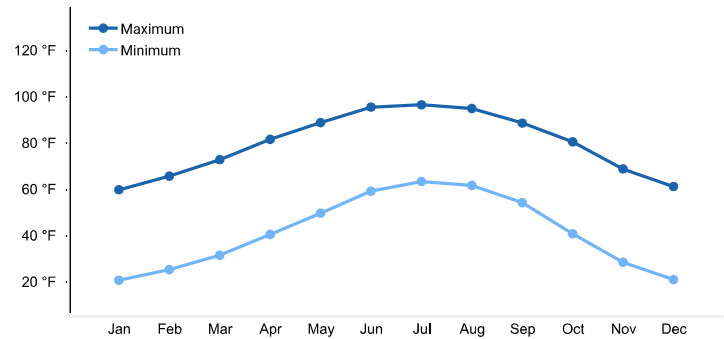


Figure 3. Monthly average minimum and maximum temperature

Influencing water features

This site is not influenced from water from wetlands or streams.

Soil features

Soils are moderately deep or very deep. Surface textures are loamy fine sand, fine sandy loam, loamy very fine sand or gravelly sandy loam.

Subsurface is a loamy fine sand, coarse sandy loam, fine sandy loam or loam that averages less than 18 percent clay and less than 15 percent carbonates.

Substratum is a fine sandy loam or gravelly fine sandy loam with less than 15 percent gravel and with less than 40 percent calcium carbonate. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches.

These soils, if unprotected by plant cover and organic residue, become wind blown and low hummocks are formed.

Minimum and maximum values listed below represent the characteristic soils for this site.

Characteristic soils are:

- Maljamar
- Berino
- Parjarito
- Palomas
- Wink
- Pyote

Table 4. Representative soil features

Surface texture	(1) Fine sand (2) Fine sandy loam (3) Loamy fine sand
Family particle size	(1) Sandy

Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderate to moderately rapid
Soil depth	40–72 in
Surface fragment cover <=3"	10%
Surface fragment cover >3"	Not specified
Available water capacity (0–40in)	5–7 in
Calcium carbonate equivalent (0–40in)	3–40%
Electrical conductivity (0–40in)	2–4 mmhos/cm
Sodium adsorption ratio (0–40in)	2
Soil reaction (1:1 water) (0–40in)	6.6–8.4
Subsurface fragment volume <=3" (Depth not specified)	4–12%
Subsurface fragment volume >3" (Depth not specified)	Not specified

Ecological dynamics

Overview

The Loamy Sand site intergrades with the Deep Sand and Sandy

sites (SD-3). These sites can be differentiated by surface soil texture and depth to a textural change. Loamy Sand and Deep Sand sites have coarse textured (sands and loamy sand) surface soils while Sandy sites have moderately coarse textured (sandy loam and fine sandy loam) surfaces. Although Loamy Sand and

Deep Sand sites have similar surface textures, the depth to a textural change is different—Loamy Sand sub-surface textures typically increase in clay at approximately 20 to 30 inches, and Deep Sand sites not until around 40 inches.

The historic plant community of Loamy Sand sites is dominated by black grama (*Bouteloua eriopoda*), dropseeds (*Sporobolus flexuosus*, *S. contractus*, *S. cryptandrus*), and bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), with scattered shinnery oak (*Quercus havardii*) and sand sage (*Artemisia filifolia*). Perennial and annual forb abundance and distribution are dependent on precipitation. Litter and to a lesser extent, bare ground, are a significant proportion of ground cover while grasses compose the remainder. Decreases in black grama indicate a transition to either a grass/shrub or shrub-dominated state. The grass/shrub state is composed of grasses/honey mesquite (*Prosopis glandulosa*), grasses/broom snakeweed (*Gutierrezia sarothrae*), or grasses/sand sage. The shrub-dominated state occurs after a severe loss of grass cover and a prevalence of sand sage with secondary shinnery oak and mesquite. Heavy grazing intensity and/or drought are influential drivers in decreasing black grama and bluestems and subsequently increasing shrub cover, erosion, and bare patches. Historical fire suppression also encourages shrub pervasiveness and a competitive advantage over grass species (McPherson 1995). Brush and grazing management, however, may reverse grass/shrub and shrub-dominated states toward the grassland-dominated historic plant community.

State and transition model

State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

Grassland: The historic plant community is a uniformly distributed grassland dominated by black grama, dropseeds, and bluestems. Sand sage and shinnery oak are evenly dispersed throughout the grassland due to the coarse soil surface texture. Perennial and annual forbs are common but their abundance and distribution are reflective of precipitation. Bluestems initially, followed by black grama, decrease with drought and heavy grazing intensity. Historical fire frequency is unknown but likely occurred enough to remove small shrubs to the competitive advantage of grass species. Fire suppression, drought conditions, and excessive grazing drive most grass species out of competition with shrub species. Diagnosis: Grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout the grassland. Forbs are present and populations fluctuate with precipitation variability.

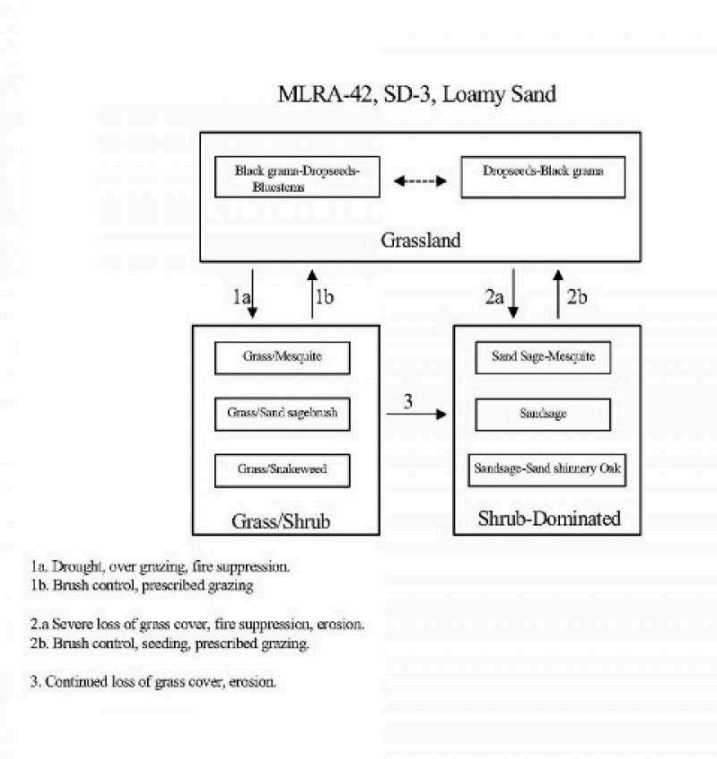
Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	442	833	1224
Forb	110	208	306
Shrub/Vine	98	184	270
Total	650	1225	1800

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	28%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	50%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	22%

Plant Communities and Transitional Pathways (diagram):



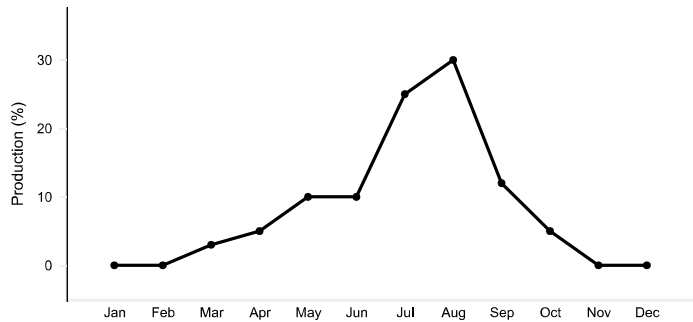


Figure 5. Plant community growth curve (percent production by month). NM2803, R042XC003NM-Loamy Sand-HCPC. SD-3 Loamy Sand - Warm season plant community.

State 2 Grass/Shrub

Community 2.1 Grass/Shrub



Grass/Shrub State: The grass/shrub state is dominated by communities of grasses/mesquite, grasses/snakeweed, or grasses/sand sage. Decreases in black grama and bluestem species lead to an increase in bare patches and mesquite which further competes with grass species. An increase of dropseeds and threeawns occurs. Grass distribution becomes more patchy with an absence or severe decrease in black grama and bluestems. Mesquite provides nitrogen and soil organic matter to co-dominant grasses (Ansley and Jacoby 1998, Ansley et al. 1998). Mesquite mortality when exposed to fire is low due to aggressive resprouting abilities. Herbicide application combined with subsequent prescribed fire may be more effective in mesquite reduction (Britton

and Wright 1971). Diagnosis: This state is dominated by an increased abundance of communities including grass/mesquite, grass/snakeweed, or grass/sand sage. Dropseeds and threeawns have a patchy distribution. Transition to Grass/Shrub State (1a): The historic plant community begins to shift toward the grass/shrub state as drivers such as drought, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by a decrease in black grama with a subsequent increase of dropseeds, threeawns, mesquite, and snakeweed. Snakeweed has been documented to outcompete black grama especially under conditions of fire suppression and drought (McDaniel et al. 1984). Key indicators of approach to transition: • Loss of black grama cover • Surface soil erosion • Bare patch expansion • Increased dropseed/threeawn and mesquite, snakeweed, or sand sage abundances Transition to Historic Plant Community (1b): Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community.

State 3 Shrub Dominated

Community 3.1 Shrub Dominated

Shrub-Dominated State: The shrub-dominated state results from a severe loss of grass cover. This state's primary species is sand sage. Shinnery oak and mesquite also occur; however, grass cover is limited to intershrub distribution. Sand sage stabilizes light sandy soils from wind erosion, which enhances protected grass/forb cover (Davis and Bonham 1979). However, shinnery oak also responds to the sandy soils with dense stands due to an aggressive rhizome system. Shinnery oak's extensive root system promotes competitive exclusion of grasses and forbs. Sand sage, shinnery oak, and mesquite can be controlled with herbicide (Herbel et al. 1979, Pettit 1986). Transition to Shrub-Dominated (2a): Severe loss of grass species with increased erosion and fire suppression will result in a transition to a shrub-dominated state with sand sage, Shin oak, and honey mesquite directly from the grassland-dominated state. Key indicators of approach to transition: • Severe loss of grass species cover • Surface soil erosion • Bare patch expansion • Increased sand sage, shinnery oak, and mesquite abundance Transition to Historic Plant Community (2b): Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community. In addition, seeding with native grass species will augment the transition to a grassland-dominated state. Transition to Shrub-Dominated (3): If the grass/shrub site continues to lose grass cover with soil erosion, the site will transition to a shrub-dominated state with sand sage, shinnery oak, and honey mesquite. Key indicators of approach to transition: • Continual loss of dropseeds/threeawns cover • Surface soil erosion • Bare patch expansion • Increased sand sage, shinnery oak, and mesquite/dropseed/threeawn and mesquite/snakeweed abundance

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass/Grasslike					
1	Warm Season			61–123	
	little bluestem	SCSC	<i>Schizachyrium scoparium</i>	61–123	—
2	Warm Season			37–61	
	sand bluestem	ANHA	<i>Andropogon hallii</i>	37–61	—
3	Warm Season			37–61	
	cane bluestem	BOBA3	<i>Bothriochloa barbinodis</i>	37–61	—
	silver bluestem	BOSA	<i>Bothriochloa saccharoides</i>	37–61	—
4	Warm Season			123–184	
	black grama	BOER4	<i>Bouteloua eriopoda</i>	123–184	—
	bush muhly	MUPO2	<i>Muhlenbergia porteri</i>	123–184	—
5	Warm Season			123–184	
	thin paspalum	PASE5	<i>Paspalum setaceum</i>	123–184	—
	plains bristlegrass	SEVU2	<i>Setaria vulpiseta</i>	123–184	—
	fringed signalgrass	URCI	<i>Urochloa ciliatissima</i>	123–184	—
6	Warm Season			123–184	
	spike dropseed	SPCO4	<i>Sporobolus contractus</i>	123–184	—
	sand dropseed	SPCR	<i>Sporobolus cryptandrus</i>	123–184	—
	mesa dropseed	SPFL2	<i>Sporobolus flexuosus</i>	123–184	—
7	Warm Season			61–123	
	hooded windmill grass	CHCU2	<i>Chloris cucullata</i>	61–123	—
	Arizona cottontop	DICA8	<i>Digitaria californica</i>	61–123	—
9	Other Perennial Grasses			37–61	
	Grass, perennial	2GP	<i>Grass, perennial</i>	37–61	—
Shrub/Vine					
8	Warm Season			37–61	
	New Mexico feathergrass	HENE5	<i>Hesperostipa neomexicana</i>	37–61	—
	giant dropseed	SPGI	<i>Sporobolus giganteus</i>	37–61	—
10	Shrub			61–123	
	sand sagebrush	ARFI2	<i>Artemisia filifolia</i>	61–123	—
	Havard oak	QUHA3	<i>Quercus havardii</i>	61–123	—
11	Shrub			34–61	
	fourwing saltbush	ATCA2	<i>Atriplex canescens</i>	37–61	—
	featherplume	DAFO	<i>Dalea formosa</i>	37–61	—
12	Shrub			37–61	
	jointfir	EPHED	<i>Ephedra</i>	37–61	—
	littleleaf ratany	KRER	<i>Krameria erecta</i>	37–61	—
13	Other Shrubs			37–61	
	Shrub (>.5m)	2SHRUB	<i>Shrub (>.5m)</i>	37–61	—
Forb					
14	Forb			61–123	
	leatherweed	CRPOP	<i>Croton pottsii</i> var. <i>pottsii</i>	61–123	—
	Indian blanket	GAPU	<i>Gaillardia pulchella</i>	61–123	—

	globemallow	SPHAE	<i>Sphaeralcea</i>	61–123	–
15	Forb			12–37	
	woolly groundsel	PACA15	<i>Packera cana</i>	12–37	–
16	Forb			61–123	
	touristplant	DIWI2	<i>Dimorphocarpa wislizeni</i>	61–123	–
	woolly plantain	PLPA2	<i>Plantago patagonica</i>	61–123	–
17	Other Forbs			37–61	
	Forb (herbaceous, not grass nor grass-like)	2FORB	<i>Forb (herbaceous, not grass nor grass-like)</i>	37–61	–

Green Wave 20 CTB 3 Geological/Lithological Map



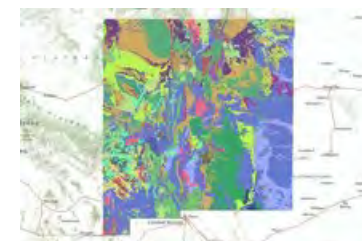
Legend

Geology of New Mexico, USA

- alluvium
- andesite
- basalt
- carbonate
- clastic
- clay or mud
- coarse-grained mixed clastic
- conglomerate
- eolian
- evaporite
- felsic metavolcanic rock
- felsic volcanic rock
- fine-grained mixed clastic
- granodiorite
- indeterminate
- lake or marine deposit (non-glacial)
- landslide
- lava flow
- limestone
- mafic metavolcanic rock
- medium-grained mixed clastic
- metamorphic rock
- metasedimentary rock
- mudstone
- playa
- plutonic rock (phaneritic)
- pyroclastic
- quartz monzonite
- rhyolite
- sandstone
- sedimentary rock
- shale
- till
- tuff
- unconsolidated deposit volcanic rock (aphanitic)
- water

• -103.52662° Longitude,
32.07693° Latitude

Site Geology
Qe/Qp



Credits: Douglas B. Stoeser, Gregory N. Green, Laurie C. Morath, William D. Heran, Anna B. Wilson, David W. Moore, Bradley S. Van Gose

APPENDIX C

CORRESPONDENCE



Outlook

RE: [EXTERNAL] nAPP2519538516 Green Wave 20 CTB 3 Liner Inspection Notification

From Raley, Jim <Jim.Raley@dvn.com>**Date** Mon 2025-08-18 8:49 AM**To** Monica Peppin <Monica.Peppin@kljeng.com>**Cc** Will Harmon <will.harmon@kljeng.com>

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Submitted 8/18

Jim Raley | Environmental Professional - Permian Basin

5315 Buena Vista Dr., Carlsbad, NM 88220

C: (575)689-7597 | jim.rale@dvn.com

From: Monica Peppin <Monica.Peppin@kljeng.com>**Sent:** Monday, August 18, 2025 6:35 AM**To:** Raley, Jim <Jim.Raley@dvn.com>**Cc:** Will Harmon <will.harmon@kljeng.com>**Subject:** [EXTERNAL] nAPP2519538516 Green Wave 20 CTB 3 Liner Inspection Notification

Jim,

Below is the liner inspection notice for Green Wave 20 CTB 3. Let me know if you have any questions or adjustments to time and date.

Liner Inspection Notification	
Site Name	Green Wave 20 CTB 3
Incident ID	nAPP2519538516
Containment Surface Area (Square Feet)	6,400
All impacted materials have been removed from liner?	Yes
Liner Inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	8/21/2025
Inspection Time	10:30 AM

Contact info of technician for observers	Monica Peppin 575.909.3418
Navigation to site (Lat/Long)	32.032151, -103.493706

Thank you,
Monica

Monica Peppin, A.S.
Environmental Specialist II



575-213-9010 Direct

575-909-3418 Cell

Carlsbad, NM 88220

kljeng.com



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RE: [EXTERNAL] nAPP2519538516 Green Wave 20 CTB 3 Liner Inspection Scheduling Update

From Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>

Date Mon 2025-08-25 7:34 AM

To Monica Peppin <Monica.Peppin@kljeng.com>

Cc Raley, Jim <jim.ralej@dmn.com>; Will Harmon <will.harmon@kljeng.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Buchanan, Michael, EMNRD <Michael.Buchanan@emnrd.nm.gov>

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Good morning Monica,

Thank you for providing the update to the OCD. The incident event details have been updated to reflect this information. Please include a copy of this and all notifications in the closure report to ensure the notifications are documented in the project file.

Kind regards,

Shelly

Shelly Wells * Environmental Specialist-Advanced
Environmental Bureau
EMNRD-Oil Conservation Division
1220 S. St. Francis Drive|Santa Fe, NM 87505
(505)469-7520 Shelly.Wells@emnrd.nm.gov
<http://www.emnrd.state.nm.us/OCD/>

From: Monica Peppin <Monica.Peppin@kljeng.com>

Sent: Friday, August 22, 2025 5:54 PM

To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>

Cc: Raley, Jim <jim.ralej@dmn.com>; Will Harmon <will.harmon@kljeng.com>

Subject: [EXTERNAL] nAPP2519538516 Green Wave 20 CTB 3 Liner Inspection Scheduling Update

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

Dear Regulatory Representative,

This is to inform you that the scheduled liner inspection at Green Wave 20 CTB 3 related to Incident ID nAPP2519538516, could not be completed as planned.

Upon arrival, it was observed that the liner within the containment was not in a condition suitable for inspection due to the presence of surface residue.

The inspection will be rescheduled once the liner has been cleaned and is ready for evaluation.

Please let me know if any additional information is needed.

Monica Peppin, A.S.
Environmental Specialist II



575-213-9010 Direct

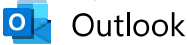
575-909-3418 Cell

Carlsbad, NM 88220

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RE: [EXTERNAL] nAPP2519538516Green Wave 20 CTB 3 Liner Inspection Notification

From Raley, Jim <Jim.Raley@dvn.com>
Date Tue 2025-09-09 10:43 AM
To Monica Peppin <Monica.Peppin@kljeng.com>
Cc Will Harmon <will.harmon@kljeng.com>

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Submitted 9/9

Jim Raley | Environmental Professional - Permian Basin
5315 Buena Vista Dr., Carlsbad, NM 88220
C: (575)689-7597 | jim.rale@dvn.com



From: Monica Peppin <Monica.Peppin@kljeng.com>
Sent: Tuesday, September 9, 2025 10:40 AM
To: Raley, Jim <Jim.Raley@dvn.com>
Cc: Will Harmon <will.harmon@kljeng.com>
Subject: [EXTERNAL] nAPP2519538516Green Wave 20 CTB 3 Liner Inspection Notification

Jim,

Here is the liner notice for Green Wave. Let me know if there needs to be any adjustment to time and date.

Liner Inspection Notification	
Site Name	Green Wave 20 CTB 3
Incident ID	nAPP2519538516
Containment Surface Area (Square Feet)	6,400
All impacted materials have been removed from liner?	Yes
Liner Inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	8/12/2025
Inspection Time	10:30 AM
Contact info of technician for observers	Monica Peppin 575.909.3418
Navigation to site (Lat/Long)	32.032151, -103.493706

Monica Peppin, A.S.
Environmental Specialist II



575-213-9010 Direct

575-909-3418 Cell

Carlsbad, NM 88220

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Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS

Action 511584

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 511584
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2519538516
Incident Name	NAPP2519538516 GREEN WAVE 20 CTB 3 @ FAPP2130250168
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2130250168] GREEN WAVE 20 CTB 3

Location of Release Source

Please answer all the questions in this group.

Site Name	GREEN WAVE 20 CTB 3
Date Release Discovered	07/13/2025
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.

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

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Pump Produced Water Released: 215 BBL Recovered: 215 BBL Lost: 0 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Transfer pump seal failed allowing release to lined secondary containment. Fluids fully recovered.

Sante Fe Main Office
Phone: (505) 476-3441

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

QUESTIONS, Page 2

Action 511584

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 511584
	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. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvsn.com Date: 10/02/2025
--	---

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

QUESTIONS, Page 3

Action 511584

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 511584
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	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 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (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 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	09/12/2025
On what date will (or did) the final sampling or liner inspection occur	09/12/2025
On what date will (or was) the remediation complete(d)	09/12/2025
What is the estimated surface area (in square feet) that will be remediated	6400
What is the estimated volume (in cubic yards) that will be remediated	0
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 4

Action 511584

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 511584
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
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	Yes
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dv.com Date: 10/02/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 6

Action 511584

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 511584
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Liner Inspection Information	
Last liner inspection notification (C-141L) recorded	504263
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	09/12/2025
Was all the impacted materials removed from the liner	Yes
What was the liner inspection surface area in square feet	6400

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	6400
What was the total volume (cubic yards) remediated	0
Summarize any additional remediation activities not included by answers (above)	Liner Inspected

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 of 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: James Raley Title: EHS Professional Email: jim.raley@dmv.com Date: 10/02/2025
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CONDITIONS

Action 511584

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 511584
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Liner Inspection and closure report is approved.	10/3/2025