



November 18, 2020

Vertex Project #: 20E-00141-007

**Spill Closure Report:** Sea Snake 35 State #001H  
Unit M, Section 35, Township 23 South, Range 33 East  
County: Lea  
Incident Tracking Number: NRM1925536016

**Prepared For:** Devon Energy Production Company  
6488 Seven Rivers Hwy  
Artesia, New Mexico 88210

**New Mexico Oil Conservation Division – District 1 – Hobbs**

1625 North French Drive  
Hobbs, New Mexico 88240

Devon Energy Production Company (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a spill assessment and liner inspection following a release that occurred on July 29, 2019, at Sea Snake 35 State #001H (hereafter referred to as “Sea Snake”). Devon provided notification of the release to New Mexico Oil Conservation Division (NM OCD) District 1 and the New Mexico State Land Office (SLO), who own the land, via submission of an initial C-141 Release Notification on July 30, 2019 (Attachment 1). The NM OCD incident tracking number assigned to this release is NRM1925536016.

This letter provides a description of the spill assessment and liner inspection, and demonstrates that closure criteria established in 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) have been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NM OCD for closure of this release.

**Incident Description**

On July 29, 2019, a release occurred at Devon’s Sea Snake site when a pump failed, causing the water tanks to overflow. This incident resulted in the release of approximately 4 barrels (bbls) of oil and 119 bbls of produced water into the lined secondary containment. Upon discovery of the release, the well was shut in and a hydrovac truck was dispatched to site to recover free liquids. Approximately 3 bbls of oil and 117 bbls of produced water were recovered from the secondary containment and removed for disposal off-site. All fluids were contained within the lined Spill Prevention Control and Countermeasures (SPCC) containment; no oil was released into undisturbed areas or waterways.

**Site Characterization**

The release at Sea Snake occurred on state-owned land, N 32.254383, W 103.546835, approximately 22 miles northwest of Jal, New Mexico. The legal description for the site is Unit M, Section 35, Township 23 South, Range 33 East, Lea County, New Mexico. This location is within the Permian Basin in southeast New Mexico and has historically been used for oil and gas exploration and production, and rangeland. An aerial photograph and site schematic are included in Attachment 2. Sea Snake is typical of oil and gas exploration and production sites in the western portion of the Permian Basin, and is

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currently used for oil and gas production, and storage. The following sections specifically describe the area surrounding Sea Snake.

The surrounding landscape is associated with sandy plains resulting from calcareous sandy eolian deposits derived from sedimentary rock generally found at elevations between 3,000 and 3,900 feet above sea level. The climate is semi-arid, with average annual precipitation ranging between 10 and 13 inches. Historically, the plant community has been dominated by grasses, with scattered shinnery oak and sand sage; perennial and annual forb abundance are dependent on precipitation. The dominant grass species are black grama, dropseeds and bluestems. Litter and to a lesser extent, bare ground, make up a significant proportion of the ground cover (United States Department of Agriculture, Natural Resources Conservation Service, 2020). Limited to no vegetation is allowed to grow on the compacted wellpad.

*The Geological Map of New Mexico* indicates the surface geology at Sea Snake is comprised primarily of Qep – interlaid eolian sands and piedmont-slope deposits (Holocene to middle Pleistocene; New Mexico Bureau of Geology and Mineral Resources, 2020). The National Resource Conservation Service (NRCS) Web Soil Survey characterizes the soil at the site as Berino-Cacique loamy fine sands association, which is distinguished by a layer of loamy fine sand over deep sandy clay loam. This type of soil tends to be well drained with low runoff and moderate available moisture in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2020). There is low potential for karst geology to be present near Sea Snake, though some erosional karst is possible (United States Department of the Interior, United States Geological Survey, 2020a).

There is no surface water located on-site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is the Pecos River, located approximately 25 miles west of the site (New Mexico Office of the State Engineer, Interstate Stream Commission, 2020). Several small, intermittent streams and a small wetland are located near Bell Lake, approximately 1.9 miles southwest of Sea Snake (United States Fish and Wildlife Service, 2020). At Sea Snake, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

The nearest recent well is a New Mexico Office of the State Engineer well from 2017 located 1.55 miles southeast of the site. Data for that well shows a depth to groundwater at 85 feet below ground surface (bgs; New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2020). Documentation pertaining to site characterization and depth to groundwater determination is included in Attachment 3.

## Closure Criteria Determination

Using site characterization information, a closure criteria determination worksheet (Attachment 3) was completed to determine if the release would be subject to any of the special case scenarios outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC, if the release had escaped secondary containment.

Based on data included in the closure criteria determination worksheet, the release at Sea Snake would not be subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC and the closure criteria for the site would be determined to be associated with depth to groundwater. As the nearest groundwater well is further than 0.5 miles from the release site, the depth to groundwater at Sea Snake cannot be accurately determined. The closure criteria for the site would then be determined to be associated with the following constituent concentration limits.

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Devon Energy Production Company  
Sea Snake 35 State #001H

2020 Spill Assessment and Closure  
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Table 1. Closure Criteria for Soils Impacted by a Release		
Depth to Groundwater	Constituent	Limit
< 50 feet	Chloride	600 mg/kg
	TPH <sup>1</sup> (GRO + DRO + MRO)	100 mg/kg
	BTEX <sup>2</sup>	50 mg/kg
	Benzene	10 mg/kg

<sup>1</sup>Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)

<sup>2</sup>Benzene, toluene, ethylbenzene and xylenes (BTEX)

## Remedial Actions

On September 14, 2020, Vertex provided 48-hour notification of the liner inspection to NM OCD, as required by Subparagraph (a) of Paragraph (5) of Subsection A 19.15.29.11 NMAC (Attachment 4). On September 16, 2020, Vertex conducted a visual inspection of the production equipment secondary containment liner for cracks, tears, cuts and other signs of damage to verify that the liner remained intact and had the ability to contain the release. The Daily Field Report (DFR) associated with the inspection is included in Attachment 5.

## Closure Request

Vertex recommends no additional remediation action to address the release at Sea Snake. The secondary containment liner appeared to be intact and had the ability to contain the release in question, as shown in the inspection photographs included with the DFR (Attachment 5). There are no anticipated risks to human, ecological or hydrological receptors associated with the release site.

Vertex requests that incident NRM1925536016 be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Devon certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NM OCD requirements to obtain closure on the July 29, 2019, release at Sea Snake.

Should you have any questions or concerns, please do not hesitate to contact me at 505.506.0040 or ngordon@vertex.ca.

Sincerely,



Natalie Gordon  
PROJECT MANAGER

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3101 Boyd Drive, Carlsbad, New Mexico 88220, USA | P 575.725.5001

**Devon Energy Production Company**  
Sea Snake 35 State #001H

**2020 Spill Assessment and Closure**  
October 2020

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## **Attachments**

- Attachment 1. NM OCD C-141 Report
- Attachment 2. Site Schematic
- Attachment 3. Site Characterization Research Documentation
- Attachment 4. Required 48-hr Notification of Liner Inspection to Regulatory Agencies
- Attachment 5. Daily Field Report(s) with Photographs



Devon Energy Production Company  
Sea Snake 35 State #001H

2020 Spill Assessment and Closure  
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## References

- New Mexico Bureau of Geology and Mineral Resources. (2020). *Interactive Geologic Map*. Retrieved from <http://geoinfo.nmt.edu>.
- New Mexico Office of the State Engineer, Interstate Stream Commission. (2019). *OSE POD Locations*. Retrieved from [https://gis.ose.state.nm.us/gisapps/ose\\_pod\\_locations/](https://gis.ose.state.nm.us/gisapps/ose_pod_locations/).
- New Mexico Oil Conservation Division. (2018). *Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.
- United States Department of Agriculture, Natural Resources Conservation Service. (2020). *Web Soil Survey*. Retrieved from <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
- United States Department of the Interior, Bureau of Land Management. (2020). *New Mexico Cave/Karsts*. Retrieved from <https://www.blm.gov/programs/recreation/recreation-programs/caves/new-mexico>.
- United States Department of the Interior, United States Geological Survey. (2020). *Groundwater for New Mexico: Water Levels*. Retrieved from <https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?>.

**Devon Energy Production Company**  
Sea Snake 35 State #001H

**2020 Spill Assessment and Closure**  
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## Limitations

This report has been prepared for the sole benefit of Devon Energy Production Company (Devon). This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

## **ATTACHMENT 1**

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	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

### Location of Release Source

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

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

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

Incident ID	
District RP	
Facility ID	
Application ID	

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

### Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
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: _____	Title: _____
Signature: <u>Kendra DeHoyos</u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Incident ID	NRM1925536016
District RP	1RP-5654
Facility ID	fDHR1914958529
Application ID	pRM1925533779

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&lt; 50</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Incident ID	NRM1925536016
District RP	1RP-5654
Facility ID	fDHR1914958529
Application ID	pRM1925533779

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: Tom Bynum Title: EHS Consultant  
Signature: Tom Bynum Date: 11/19/2020  
email: tom.bynum@dvn.com Telephone: 575-748-2663

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NRM1925536016
District RP	1RP-5654
Facility ID	fDHR1914958529
Application ID	pRM1925533779

## Closure

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant  
Signature: Tom Bynum Date: 11/19/2020  
email: tom.bynum@dvn.com Telephone: 575-748-2663

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



## **ATTACHMENT 2**



 Approximate Lease Boundary
  Containment
  Approximate Spill Extent ( ~ 7,200 sq.ft. )



0 20 40 80 ft  
 Map Center:  
 Lat/Long: 32.254, -103.547

NAD 1983 UTM Zone 13N  
 Date: Oct 16/20



Site Schematic  
 Sea Snake 35 State #001H

FIGURE:

1



Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Imagery from ESRI, 2018.

VERSATILITY. EXPERTISE.

## **ATTACHMENT 3**


Closure Criteria Determination Worksheet			
Site Name: Sea Snake 35 State #001H			
Spill Coordinates:		X: 32.2544518	Y: -103.5474319
Site Specific Conditions		Value	Unit
1	Depth to Groundwater	85	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	135,300	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	5,385	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	80,942	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, <b>or</b>	80,942	feet
	ii) Within 1000 feet of any fresh water well or spring	>1000	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	5,385	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	>100	year
11	Soil Type	my fine sands and simona fine sandy loam	
12	Ecological Classification		
13	Geology	an and Piedmont deposits	
NMAC 19.15.29.12 E (Table 1) Closure Criteria		51-100'	<50' 51-100' >100'





# Sea Snake 35 ST 1


Depth to GW: 85 FT  
Distance to Well: 1.55 miles

## Legend

 Feature 1

 Sea Snake 35-1

C04014POD5  32.249823,-103.521444

C04014POD4 

Jog Tank

Google Earth

Released to Imaging: 2/11/2021 2:05:27 PM




4000 ft





# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)				(NAD83 UTM in meters)			
		(quarters are smallest to largest)							
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	02284	4	2	4	26	23S	33E	637907	3571626* 

**Driller License:****Driller Company:****Driller Name:** CARL BRININSTOOL**Drill Start Date:****Drill Finish Date:** 12/31/1919**Plug Date:****Log File Date:****PCW Rcv Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:** 3 GPM**Casing Size:** 6.50**Depth Well:** 325 feet**Depth Water:** 225 feet

\*UTM location was derived from PLSS - see Help

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

10/5/20 11:55 AM

POINT OF DIVERSION SUMMARY



## New Mexico Office of the State Engineer

# Water Right Summary


[get image list](#)

**WR File Number:** C 04014      **Subbasin:** CUB      **Cross Reference:** -  
**Primary Purpose:** MON MONITORING WELL  
**Primary Status:** PMT PERMIT  
**Total Acres:**      **Subfile:** -      **Header:** -  
**Total Diversion:** 0      **Cause/Case:** -  
**Agent:** GHD SERVICES, INC.  
**Contact:** CHRISTINE MATHEWS-GHD  
**Owner:** ENERGY TRANSFER COMPANY  
**Contact:** STACY BOULTINGHOUSE  
**Owner:** TRANSWESTERN PIPELINE CO LLC  
**Contact:** ROBERT ROSE

### Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/		Acres	Diversion	Consumptive
				1	2		To				
<a href="#">get images</a>	600875	EXPL	2017-01-12	PMT	LOG	C 04014 POD1	T		0	0	

### Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
<a href="#">C 04014 POD1</a>		Shallow	1	1	3	06	24S	34E		639811	3568638	MW-17
<a href="#">C 04014 POD2</a>		Shallow	4	4	2	01	24S	33E		639656	3568917	MW-18
<a href="#">C 04014 POD3</a>		Shallow	2	4	2	01	24S	33E		639497	3569007	MW-19
<a href="#">C 04014 POD4</a>		Shallow	3	4	2	01	24S	33E		639295	3568859	MW-20
<a href="#">C 04014 POD5</a>		Shallow	1	4	2	01	24S	33E		639284	3569086	MW-21

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

1/29/20 8:02 AM

WATER RIGHT SUMMARY

OCD Permitting

Home    Searches    Wells    Well Details

30-025-41625 SEA SNAKE 35 STATE #001H [40329]

General Well Information

Operator:	[6137] DEVON ENERGY PRODUCTION COMPANY, LP		
Status:	Active	Direction:	Horizontal
Well Type:	Oil	Multi-Lateral:	No
Work Type:	New	Mineral Owner:	State
		Surface Owner:	
Surface Location:	M-35-23S-33E    200 FSL    1295 FWL		
Lat/Long:	32.2544518,-103.5474319 NAD83		
GL Elevation:	3665		
KB Elevation:		Sing/Mult Compl:	Single
DF Elevation:		Potash Waiver:	False

Proposed Formation and/or Notes

2ND BONE SPRING SAND

Depths

Proposed:	16571	True Vertical Depth:	11290
Measured Vertical Depth:	15977	Plugback Measured:	15901

Formation Tops

Formation	Top	Producing	Method Obtained
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Event Dates

Initial APD Approval:	01/24/2014		
Most Recent APD Approval:	01/24/2014	Current APD Expiration:	01/24/2016
APD Cancellation:			
APD Extension Approval:			
Spud:	10/13/2014	Gas Capture Plan Received:	
Approved Temporary Abandonment:		TA Expiration:	
Shut In:			
Plug and Abandoned Intent Received:		PNR Expiration:	
Well Plugged:		Last MIT/BHT:	
Site Release:			
Last Inspection:	12/01/2014		

History

Effective Date	Property	Well Number	Operator	C-101 Work Type	Well Type	Well Status	Apd Cancelled	Plug Date
01/24/2014	[40329] SEA SNAKE 35 STATE	#001H	[6137] DEVON ENERGY PRODUCTION COMPANY, LP	New	Oil	Active		

Comments

Quick

- [General](#)
- [History](#)
- [Comments](#)
- [Operations](#)
- [Pits](#)
- [Casing](#)
- [Well Cc](#)
- [Financial](#)
- [Compliance](#)
- [Incidents](#)
- [Orders](#)
- [Production](#)
- [Transparency](#)
- [Points of Interest](#)

Assoc

- [Well File](#)
- [Well Log](#)
- [Well Ad](#)

New S

- [New Fe](#)
- [New In](#)
- [New Or](#)
- [New Pl](#)
- [New St](#)
- [New Ta](#)
- [New W](#)





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is  
closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">C 02284</a>		CUB	LE	4	2	4	26	23S	33E	637907	3571626*	2322	325	225	100
<a href="#">C 04014 POD5</a>		CUB	LE	1	4	2	01	24S	33E	639284	3569086	2443	95	85	10
<a href="#">C 04014 POD4</a>		CUB	LE	3	4	2	01	24S	33E	639295	3568859	2506	96	86	10
<a href="#">C 04014 POD3</a>		CUB	LE	2	4	2	01	24S	33E	639497	3569007	2668	95	87	8
<a href="#">C 04014 POD2</a>		CUB	LE	4	4	2	01	24S	33E	639656	3568917	2842	95	81	14
<a href="#">C 02281</a>		CUB	LE	3	4	4	28	23S	33E	634495	3571183*	2897	545	400	145
<a href="#">C 02308</a>		CUB	LE	1	3	1	10	24S	33E	634953	3567364*	2909	40	20	20
<a href="#">C 02283</a>		CUB	LE	4	2	2	26	23S	33E	637896	3572431*	3062	325	225	100
<a href="#">C 04014 POD1</a>		CUB	LE	1	1	3	06	24S	34E	639811	3568638	3064	91	81	10
<a href="#">C 02282</a>		CUB	LE	3	1	1	25	23S	33E	638098	3572436*	3139	325	225	100
<a href="#">C 02280</a>		CUB	LE	3	2	4	28	23S	33E	634489	3571586*	3148	650	400	250
<a href="#">C 02278</a>		CUB	LE	3	4	2	28	23S	33E	634484	3571989*	3427	650	400	250
<a href="#">C 02279</a>		CUB	LE	3	4	3	28	23S	33E	633691	3571173*	3584	650	400	250
<a href="#">C 03591 POD1</a>		CUB	LE	2	1	4	05	24S	33E	632731	3568518	4275			
<a href="#">C 03917 POD1</a>		C	LE	4	1	3	13	24S	33E	638374	3565212	4578	600	420	180
<a href="#">C 04282 POD1</a>		C	LE	1	2	1	05	24S	34E	641662	3569541	4779	574	390	184
<a href="#">C 03620 POD1</a>		CUB	LE	1	4	3	32	23S	34E	641790	3569941	4923	480	130	350
<a href="#">C 03666 POD1</a>		C	LE	2	3	4	13	24S	33E	639132	3565078	4997	650	390	260

Average Depth to Water:

**237 feet**

Minimum Depth:20 feet

Maximum Depth:420 feet

Record Count: 18

UTMNAD83 Radius Search (in meters):

Easting (X): 636882.89

Northing (Y): 3569541.1

Radius: 5000

\*UTM location was derived from PLSS - see Help

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


10/5/20 11:52 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



## 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
C 04014	POD1	1	1	3	06	24S	34E	639811	3568638 
Driller License:	1186	Driller Company:				ENVIRO-DRILL, INC.			
Driller Name:	HAMMER, RODNEY								
Drill Start Date:	02/13/2017	Drill Finish Date:				02/17/2017		Plug Date:	
Log File Date:	03/03/2017	PCW Rcv Date:						Source:	Shallow
Pump Type:		Pipe Discharge Size:						Estimated Yield:	
Casing Size:	2.00	Depth Well:				91 feet		Depth Water:	81 feet
Water Bearing Stratifications:					Top	Bottom	Description		
					47	91	Sandstone/Gravel/Conglomerate		
Casing Perforations:					Top	Bottom			
					76	91			

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1/29/20 8:08 AM

POINT OF DIVERSION SUMMARY



## 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
C	04014 POD2	4	4	2	01	24S	33E	639656	3568917 
Driller License: 1186		Driller Company:				ENVIRO-DRILL, INC.			
Driller Name: HAMMER, RODNEY									
Drill Start Date:	02/13/2017	Drill Finish Date:				02/17/2017		Plug Date:	
Log File Date:	03/03/2017	PCW Rcv Date:						Source:	Shallow
Pump Type:		Pipe Discharge Size:						Estimated Yield:	
Casing Size:	2.00	Depth Well:				95 feet		Depth Water:	81 feet
Water Bearing Stratifications:		Top		Bottom		Description			
		38		95		Sandstone/Gravel/Conglomerate			
Casing Perforations:		Top		Bottom					
		80		95					

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1/29/20 8:08 AM

POINT OF DIVERSION SUMMARY



## 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
C	04014 POD3	2	4	2	01	24S	33E	639497	3569007 
<hr/>									
Driller License:	1186	Driller Company:				ENVIRO-DRILL, INC.			
Driller Name:	HAMMER, RODNEY								
Drill Start Date:	02/13/2017	Drill Finish Date:				02/17/2017		Plug Date:	
Log File Date:	03/03/2017	PCW Rcv Date:						Source:	Shallow
Pump Type:		Pipe Discharge Size:						Estimated Yield:	
Casing Size:	2.00	Depth Well:				95 feet		Depth Water:	87 feet
<hr/>									
Water Bearing Stratifications:					Top	Bottom	Description		
					49	95	Sandstone/Gravel/Conglomerate		
<hr/>									
Casing Perforations:					Top	Bottom			
					80	95			
<hr/>									

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1/29/20 8:07 AM

POINT OF DIVERSION SUMMARY



## 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
C	04014 POD4	3	4	2	01	24S	33E	639295	3568859 
<hr/>									
Driller License:	1186	Driller Company:				ENVIRO-DRILL, INC.			
Driller Name:	HAMMER, RODNEY								
Drill Start Date:	02/13/2017	Drill Finish Date:				02/17/2017		Plug Date:	
Log File Date:	03/03/2017	PCW Rcv Date:						Source:	Shallow
Pump Type:		Pipe Discharge Size:						Estimated Yield:	
Casing Size:	2.00	Depth Well:				96 feet		Depth Water:	86 feet
<hr/>									
Water Bearing Stratifications:					Top	Bottom	Description		
					35	96	Sandstone/Gravel/Conglomerate		
<hr/>									
Casing Perforations:					Top	Bottom			
					35	96			
<hr/>									

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1/29/20 8:06 AM

POINT OF DIVERSION SUMMARY



[USGS Home](#)  
[Contact USGS](#)  
[Search USGS](#)

## National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater



Geographic Area:

United States



GO

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#)

Groundwater levels for the Nation

## Search Results -- 1 sites found

site\_no list =

- 321348103340401

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

## USGS 321348103340401 24S.33E.10.13123

Available data for this site

Groundwater: Field measurements



GO

Lea County, New Mexico

Hydrologic Unit Code 13070007

Latitude 32°14'04.9", Longitude 103°34'02.4" NAD83

Land-surface elevation 3,592 feet above NAVD88

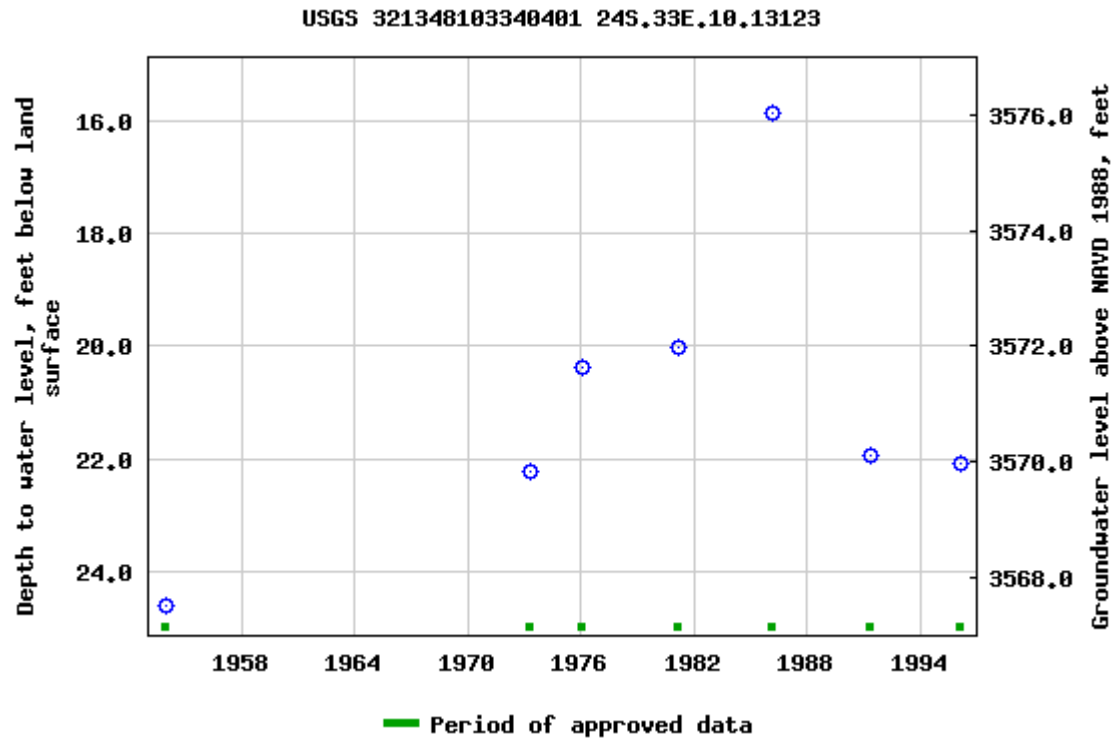
The depth of the well is 36 feet below land surface.

This well is completed in the Ogallala Formation (121OGLL) local aquifer.

### Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)[Reselect period](#)

Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

[Questions about sites/data?](#)

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-08-28 15:38:01 EDT

0.82 0.61 nadww01



## New Mexico Office of the State Engineer

# Water Right Summary

**WR File Number:** LWD 01213      **Subbasin:** CUB      **Cross Reference:** LWD-C-21  
**Primary Purpose:** PLS    NON 72-12-1 LIVESTOCK WATERING  
**Primary Status:** DCL    DECLARATION  
**Total Acres:** 2.8      **Subfile:** -      **Header:** -  
**Total Diversion:** 3.7      **Cause/Case:** -  
**Owner:** DIAMOND & HALF INC

### Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
<a href="#">631891</a>	DCL	<a href="#">1998-02-09</a>	APP	RCV	LWD-C-21 AMENDED	T	2.8	3.7	0
<a href="#">631873</a>	DCL	<a href="#">1993-04-20</a>	DCL	PRC	LWD-C-21	T	2.8	3.7	

### Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	64Q16Q4Sec	Tws	Rng	X	Y	Other Location Desc
<a href="#">LWD 01213 POD1</a>			4	3	1	01	24S	33E	638347 3568818*

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Priority Summary

Priority	Status	Acres	Diversion	Pod Number
12/31/1935	DCL	2.8	3.7	<a href="#">LWD 01213 POD1</a>

### Place of Use

Q	Q	64Q16Q4Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256	4	3	1	01	24S	33E	2.8	3.7	PLS 12/31/1948	PRG	"JOG TANK" BELL LAKE 7.5'

### Source

Acres	Diversion	CU	Use	Priority	Source Description
2.8	3.7		PLS	12/31/1948	SW

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

1/29/20 7:52 AM


WATER RIGHT  
SUMMARY




# Sea Snake 35 ST 1

Closest Watercourse: Pecos River  
Distance: 25.63 miles

## Legend

 Feature 1

 Sea Snake 35-1

Google Earth

© 2019 Google  
Released to Imaging: 2/11/2021 2:05:27 PM



10 mi



# Distance to Wetland



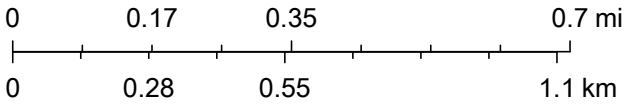
1/29/2020, 8:00:37 AM

OSE District Boundary

GIS WATERS PODs

- Active
- Declared Groundwater Basins
- Surface Water Sub Basins

1:18,056



Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and



Soil Map—Lea County, New Mexico



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

1/29/2020  
Page 1 of 3

## 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 16, Sep 15, 2019

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

Date(s) aerial images were photographed: Dec 31, 2009—Sep 17, 2017

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.

Soil Map—Lea County, New Mexico

---

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BE	Berino-Cacique loamy fine sands association	72.7	52.9%
SE	Simona fine sandy loam, 0 to 3 percent slopes	63.0	45.9%
SR	Simona-Upton association	1.7	1.3%
<b>Totals for Area of Interest</b>		<b>137.4</b>	<b>100.0%</b>

Map Unit Description: Berino-Cacique loamy fine sands association---Lea County, New Mexico

---

## Lea County, New Mexico

### BE—Berino-Cacique loamy fine sands association

#### Map Unit Setting

*National map unit symbol:* dmpd

*Elevation:* 3,000 to 3,900 feet

*Mean annual precipitation:* 10 to 13 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

*Berino and similar soils:* 50 percent

*Cacique and similar soils:* 40 percent

*Minor components:* 10 percent

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

#### Description of Berino

##### 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 over calcareous sandy alluvium derived from sedimentary rock

##### Typical profile

*A - 0 to 6 inches:* loamy fine sand

*Btk - 6 to 60 inches:* sandy clay loam

##### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):*

Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 40 percent

*Gypsum, maximum in profile:* 1 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 2.0

*Available water storage in profile:* Moderate (about 8.7 inches)



Map Unit Description: Berino-Cacique loamy fine sands association---Lea County, New Mexico

---

**Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7c

*Hydrologic Soil Group:* B

*Ecological site:* Loamy Sand (R042XC003NM)

*Hydric soil rating:* No

**Description of Cacique****Setting**

*Landform:* Plains

*Landform position (three-dimensional):* Rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Calcareous eolian deposits derived from  
sedimentary rock

**Typical profile**

*A - 0 to 12 inches:* loamy fine sand

*Bt - 12 to 28 inches:* sandy clay loam

*Bkm - 28 to 38 inches:* cemented material

**Properties and qualities**

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* 20 to 40 inches to petrocalcic

*Natural drainage class:* Well drained

*Runoff class:* High

*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 in profile:* 5 percent

*Gypsum, maximum in profile:* 1 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0  
to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 2.0

*Available water storage in profile:* Low (about 3.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7c

*Hydrologic Soil Group:* C

*Ecological site:* Sandy (R042XC004NM)

*Hydric soil rating:* No

**Minor Components****Maljamar**

*Percent of map unit:* 6 percent

*Ecological site:* Limy Upland 16-21" PZ (R077CY028TX)

*Hydric soil rating:* No

Map Unit Description: Berino-Cacique loamy fine sands association---Lea County, New Mexico

---

**Palomas**

*Percent of map unit:* 4 percent

*Ecological site:* Loamy Sand (R042XC003NM)

*Hydric soil rating:* No

**Data Source Information**

Soil Survey Area: Lea County, New Mexico

Survey Area Data: Version 16, Sep 15, 2019

Map Unit Description: Simona fine sandy loam, 0 to 3 percent slopes---Lea County, New Mexico

---

## Lea County, New Mexico

### SE—Simona fine sandy loam, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* dmr2

*Elevation:* 3,000 to 4,200 feet

*Mean annual precipitation:* 10 to 15 inches

*Mean annual air temperature:* 58 to 62 degrees F

*Frost-free period:* 190 to 205 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Simona and similar soils:* 85 percent

*Minor components:* 15 percent

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

#### Description of Simona

##### Setting

*Landform:* Plains

*Landform position (three-dimensional):* Rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Calcareous eolian deposits derived from sedimentary rock

##### Typical profile

*A - 0 to 8 inches:* fine sandy loam

*Bk - 8 to 16 inches:* gravelly fine sandy loam

*Bkm - 16 to 26 inches:* cemented material

##### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* 7 to 20 inches to petrocalcic

*Natural drainage class:* Well drained

*Runoff class:* Very high

*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 in profile:* 35 percent

*Gypsum, maximum in profile:* 1 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 2.0

*Available water storage in profile:* Very low (about 2.0 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 6s



Map Unit Description: Simona fine sandy loam, 0 to 3 percent slopes---Lea County, New Mexico

---

*Land capability classification (nonirrigated): 7s*  
*Hydrologic Soil Group: D*  
*Ecological site: Shallow Sandy (R042XC002NM)*  
*Hydric soil rating: No*

#### **Minor Components**

##### **Kimbrough**

*Percent of map unit: 8 percent*  
*Ecological site: Very Shallow 16-21" PZ (R077CY037TX)*  
*Hydric soil rating: No*

##### **Lea**

*Percent of map unit: 7 percent*  
*Ecological site: Limy Upland 16-21" PZ (R077CY028TX)*  
*Hydric soil rating: No*

### **Data Source Information**


Soil Survey Area: Lea County, New Mexico  
Survey Area Data: Version 16, Sep 15, 2019





# Sea Snake 35 ST 1


Closest Residence: 15.33 miles

## Legend

 Feature 1

 Residence

 Sea Snake 35-1

 Residence

Google Earth




7 mi

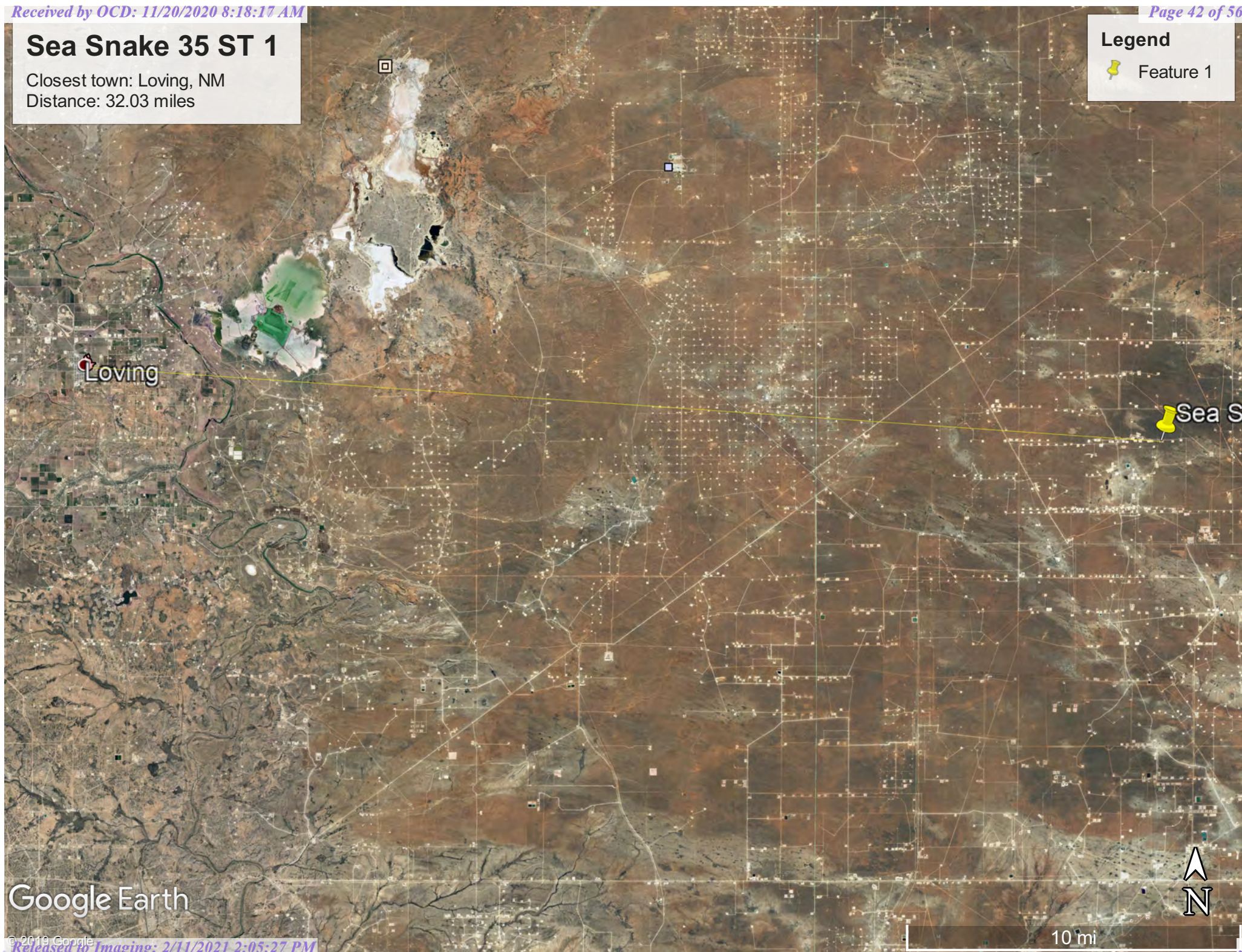


# Sea Snake 35 ST 1

Closest town: Loving, NM  
Distance: 32.03 miles

## Legend

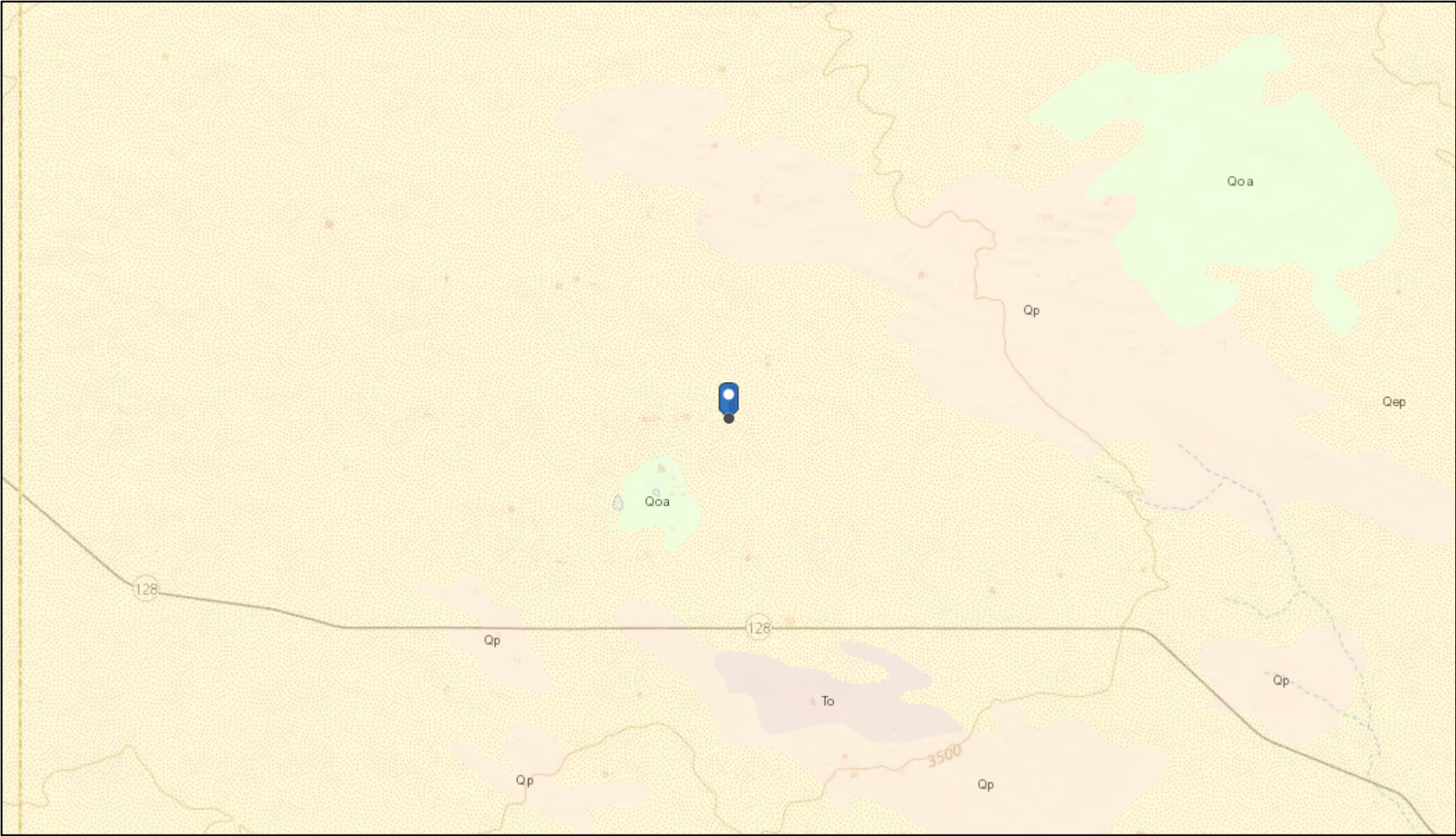
 Feature 1



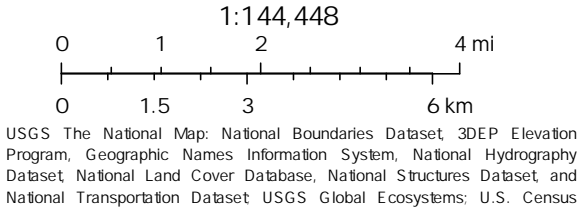
Google Earth



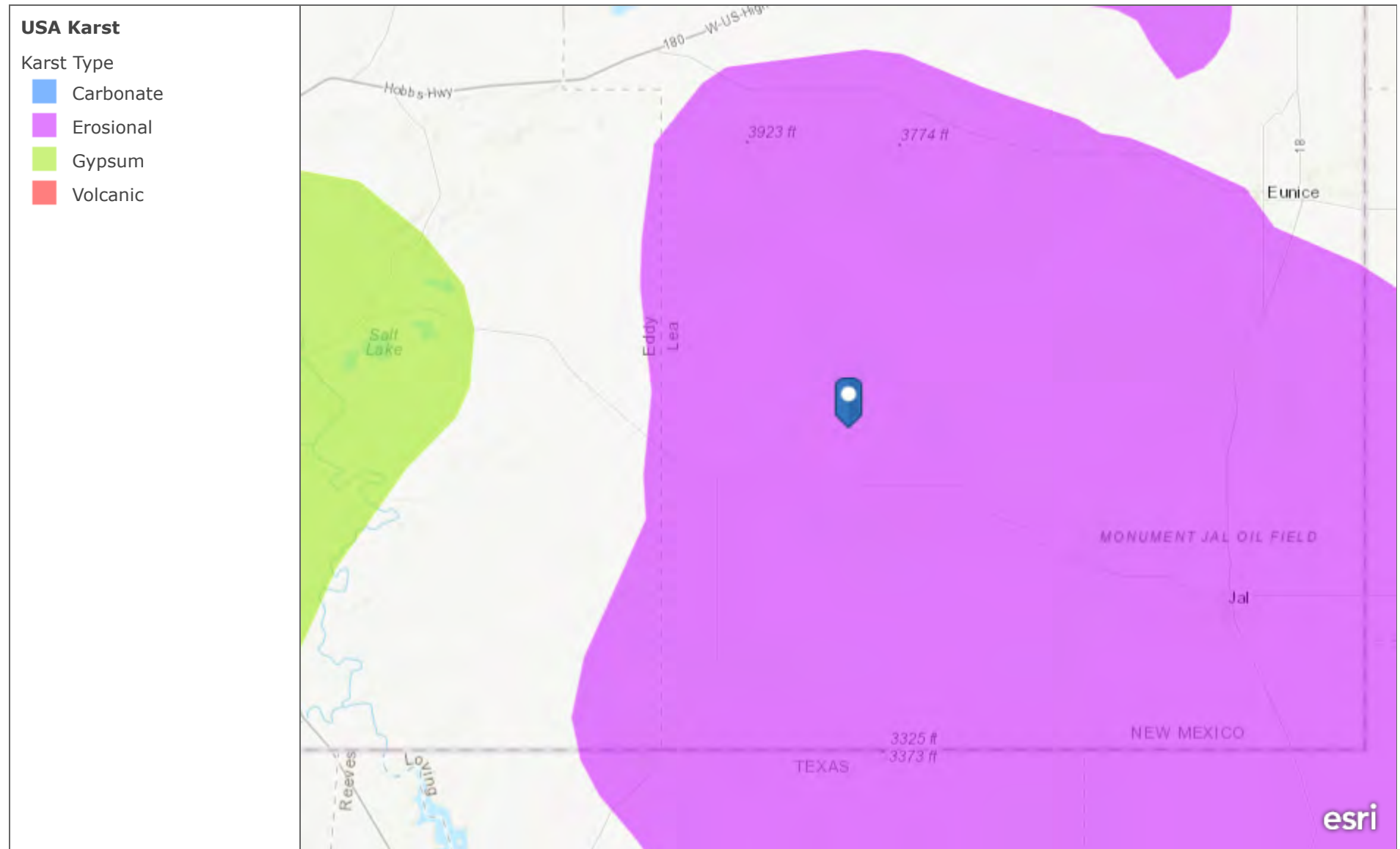
# Geology Map



1/29/2020, 8:44:01 AM



## USA Karst



A map showing karst areas in the United States based on the U.S. Geological Survey Open-File Report 2004-1352

Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS | U.S. Geological Survey Open-File Report 2004-1352, Caves and Karst in the U.S. National Park Service, AGI Karst Map of the US.



## **ATTACHMENT 4**

## Natalie Gordon

---

**From:** Dhugal Hanton <vertexresourcegroupusa@gmail.com>  
**Sent:** Monday, September 14, 2020 9:25 AM  
**To:** Natalie Gordon  
**Subject:** Fwd: Multiple Incidents: Sea Snake 35 State 1H 48-hr Notification of Liner Inspection

----- Forwarded message -----

From: **Dhugal Hanton** <[vertexresourcegroupusa@gmail.com](mailto:vertexresourcegroupusa@gmail.com)>  
Date: Mon, Sep 14, 2020 at 9:24 AM  
Subject: Multiple Incidents: Sea Snake 35 State 1H 48-hr Notification of Liner Inspection  
To: <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>, <[spills@slo.state.nm.us](mailto:spills@slo.state.nm.us)>  
Cc: <[tom.bynum@dvn.com](mailto:tom.bynum@dvn.com)>, <[amanda.davis@dvn.com](mailto:amanda.davis@dvn.com)>, <[wesley.mathews@dvn.com](mailto:wesley.mathews@dvn.com)>, <[Lupe.Carrasco@dvn.com](mailto:Lupe.Carrasco@dvn.com)>

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled a liner inspection to be conducted at Sea Snake 35 State 1H for the following releases:

1. NTO1431629657 (1RP-3418) - DOR: 11/09/2014
2. NCH1827837754 (1RP-5220) - DOR: 08/31/2018
3. NAB1909351591 (1RP-5415) - DOR: 03/10/2019
4. NRM1925536016 (1RP-5654) - DOR: 07/29/2019

This work will be completed on behalf of Devon Energy Production Company.

On Wednesday, September 16, 2020 at approximately 9:00 a.m., Kevin Smith of Vertex will be onsite to conduct a liner inspection. He can be reached at 575-988-0871. If you need directions to the site, please do not hesitate to contact him.

If you have any questions or concerns regarding this notification, please give me a call at 505-506-0040.

Thank you,  
Natalie

**Natalie Gordon**  
Project Manager

Vertex Resource Group Ltd.  
213 S. Mesa Street  
Carlsbad, NM 88220

**P 575.725.5001 ext 709**  
**C 505.506.0040**

[www.vertex.ca](http://www.vertex.ca)

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and any attachment is prohibited. If you have received this communication in error, please notify us by reply email and immediately and permanently delete this message and any attachments. Thank you.

## **ATTACHMENT 5**



## Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	9/16/2020
Site Location Name:	Sea Snake 35 State #001H	Report Run Date:	9/22/2020 8:32 PM
Client Contact Name:	Amanda Davis	API #:	30-025-41625
Client Contact Phone #:	(575) 748-0176		
Unique Project ID	-Sea Snake 35 State #001H	Project Owner:	Tom Bynum
Project Reference #	Spill 03/10/2019	Project Manager:	Natalie Gordon

### Summary of Times

Arrived at Site	9/16/2020 9:32 AM
Departed Site	9/16/2020 3:02 PM

### Field Notes

**9:58** Conducting liner inspection to verify if any tears, cracks, holes, or any integrity deficiencies are present within the liner of the secondary containment. Pictures will be taken to show the spill in question was able to be contained within the secondary containment.

### Next Steps & Recommendations

- 1 No tears, cracks, holes or any integrity deficiencies were identified in the liner inspection. No visible of signs of the incident in question escaping the secondary containment. Rainwater was present in the containment as shown in the inspection photos.
- 2 No further remediation activity is recommended at this time for this incident.

## Daily Site Visit Report



## Site Photos

Viewing Direction: East



Liner within secondary containment (north wall)

Viewing Direction: South



Liner within secondary containment (west wall)

Viewing Direction: West



Liner within secondary containment (north wall)

Viewing Direction: South



Liner within secondary containment (west wall)



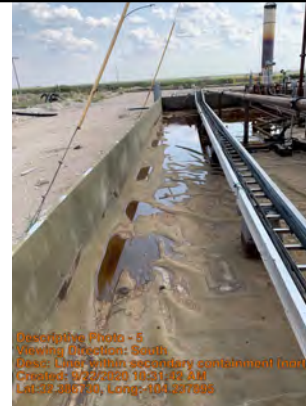
## Daily Site Visit Report

Viewing Direction: South



Area adjacent to containment

Viewing Direction: South



Liner within secondary containment (west wall)

Viewing Direction: South



Area adjacent to containment



Viewing Direction: West



Liner within secondary containment (south wall)



## Daily Site Visit Report

Viewing Direction: South	Viewing Direction: North
 <p>Descriptive Photo - 8 Viewing Direction: South Date: Area adjacent to containment Created: 9/22/2020 10:33:42 AM Lat: 30.366711, Long: -104.537864</p>	 <p>Descriptive Photo - 8 Viewing Direction: North Date: Area adjacent to containment Created: 9/22/2020 10:38:23 AM Lat: 30.366706, Long: -104.537867</p>
Area adjacent to containment	Area adjacent to containment



## Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Kevin Smith

**Signature:**

A handwritten signature in black ink, appearing to read 'Kevin Smith', written over a thin horizontal line. Below the line, the word 'Signature' is printed in a small, light gray font.

Incident ID	NRM1925536016
District RP	1RP-5654
Facility ID	fDHR1914958529
Application ID	pRM1925533779

## Closure

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant  
Signature: Tom Bynum Date: 11/19/2020  
email: tom.bynum@dvn.com Telephone: 575-748-2663

**OCD Only**

Received by: Chad Hensley Date: 2/11/2021

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

Closure Approved by: Chad Hensley Date: 2/11/2021  
Printed Name: Chad Hensley Title: Environmental Specialist Advanced

**From:** [Hensley, Chad, EMNRD](#)  
**To:** [kendra.dehoyos@dv.com](mailto:kendra.dehoyos@dv.com)  
**Cc:** [Bratcher, Mike, EMNRD](#); [Hamlet, Robert, EMNRD](#); [Eads, Cristina, EMNRD](#)  
**Subject:** New Mexico EMNRD OCD C-141 for Incident # 11271 Sea Snake 35 State 1H  
**Date:** Thursday, February 11, 2021 10:33:00 AM  
**Attachments:** [Signed Closure Report-Devon-Sea Snake 35 State1H-11271-.pdf](#)

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Kendra,

We have received your closure report and final C-141 for Incident # 11271 Sea Snake 35 State 1H, thank you. This closure is approved. Please let me know if you have any further questions.

Regards,

**Chad Hensley** • Environmental Science & Specialist

Environmental Bureau

EMNRD - Oil Conservation Division

811 First St. | Artesia, NM 88210

Office: 575.748.1283 | Cell: 575-703-1723

[chad.hensley@state.nm.us](mailto:chad.hensley@state.nm.us)

<http://www.emnrd.state.nm.us/OCD/>



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

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

CONDITIONS  
  
Action 11271

**CONDITIONS OF APPROVAL**

Operator: DEVON ENERGY PRODUCTION COMPAN 333 West Sheridan Ave. Oklahoma City, OK73102			OGRID: 6137	Action Number: 11271	Action Type: C-141
OCD Reviewer			Condition		
ceads			None		