



November 19, 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
API: 30-025-41625
Incident Tracking Number: 1RP-4301

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 for an historical produced water release that occurred on June 1, 2016, at Sea Snake 35 State #001H, API 30-025-41625 (hereafter referred to as “Sea Snake”). Devon provided immediate notification of the release to New Mexico Oil Conservation Division (NM OCD) District 1, followed by submission of an initial C-141 Release Notification was on June 2, 2016 (Attachment 1). The NMOCD incident tracking number assigned to this release is 1RP-4301 (NJXK1615534761).

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 June 1, 2016, a release occurred at Devon’s Sea Snake site when the groove that holds together the Vitaulic clamp and pipe corroded. This incident resulted in the release of approximately 12.5 barrels (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 12.5 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 32.254452 W 103.547432, 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

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.

vertex.ca

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 ¹ (GRO + DRO + MRO) | 100 mg/kg |
| | BTEX ² | 50 mg/kg |
| | Benzene | 10 mg/kg |

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

²Benzene, 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 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 this incident 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 June 1, 2016, 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

vertex.ca

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

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
October 2020

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/.
- 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
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

| | |
|--|--|
| Name of Company Devon Energy Production Company | Contact Randall Gladden, Production Foreman |
| Address 6488 Seven Rivers Hwy Artesia, NM 88210 | Telephone No. 575-513-9463 |
| Facility Name Sea Snake 35 State #1H | Facility Type Oil |
| Surface Owner State | Mineral Owner State |
| API No 30-025-41625 | |

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| M | 35 | 23S | 33E | 200 | South | 1295 | West | Lea |

Latitude: 32.2544518 **Longitude:** -103.5474319

NATURE OF RELEASE

| | | |
|---|--|---|
| Type of Release Produced water | Volume of Release 12.5 BBLS | Volume Recovered 12.5 BBLS |
| Source of Release Victaulic clamp | Date and Hour of Occurrence 6/1/2016 @ 10:05am | Date and Hour of Discovery 6/1/2016 @ 10:05am |
| Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom? OCD-Jamie Keyes | |
| By Whom? Rebecca Jamison, Assistant Production Foreman | Date and Hour OCD- 6/2/2016 @ 7:50am | |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If YES, Volume Impacting the Watercourse N/A | |

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

Groove that holds together the Victaulic clamp and pipe corroded resulting in a 12.5 BBLS produced water release. All wells producing to this battery were shut in to prevent further release. Repairs have been made and wells were returned to production.

Describe Area Affected and Cleanup Action Taken.*

12.5 BBLS of produced water was released from the Victaulic clamp on the water line from the separator to the produced water tank into lined containment. All 12.5 BBLS produced water remained in lined containment. Liner was checked for holes, no holes were found in the liner. Vacuum truck recovered all 12.5 BBLS of the released produced water.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

| | | |
|---|--|--|
| Signature: Sarah Gallegos-Troublefield | OIL CONSERVATION DIVISION | |
| Printed Name: Sarah Gallegos-Troublefield | | |
| Title: Field Admin Support | Approved by Environmental Specialist: | |
| E-mail Address: Sarah.Gallegos-Troublefield@dv.com | Approval Date: | Expiration Date: |
| Date: 6/2/2016 Phone: 575.748.1864 | Conditions of Approval: | Attached <input type="checkbox"/> |

* Attach Additional Sheets If Necessary

| | |
|----------------|----------------|
| Incident ID | NJXK1615534761 |
| District RP | 1RP-4301 |
| Facility ID | |
| Application ID | |

Site Assessment/Characterization

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

| | |
|---|---|
| What is the shallowest depth to groundwater beneath the area affected by the release? | <u>< 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 not 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 | NJXK1615534761 |
| District RP | 1RP-4301 |
| Facility ID | |
| Application ID | |

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

Printed Name: 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 | NJXK1615534761 |
| District RP | 1RP-4301 |
| Facility ID | |
| Application ID | |

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: Brittany Hall




Date: 10/28/2022

Printed Name: Brittany Hall

Title: Environmental Specialist

ATTACHMENT 2



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



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, or | 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




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) | | | | | | | |
| Well Tag | POD Number | Q64 | Q16 | Q4 | Sec | Tws | Rng | X | Y |
| 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 | | | | |
| get images | 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 | | | | Tws | Rng | X | Y | Other Location Desc |
|------------------------------|----------|---------|----|-----|----|-----|-----|-----|--------|---------|---------------------|
| | | | 64 | Q16 | Q4 | Sec | | | | | |
| C 04014 POD1 | | Shallow | 1 | 1 | 3 | 06 | 24S | 34E | 639811 | 3568638 | MW-17 |
| C 04014 POD2 | | Shallow | 4 | 4 | 2 | 01 | 24S | 33E | 639656 | 3568917 | MW-18 |
| C 04014 POD3 | | Shallow | 2 | 4 | 2 | 01 | 24S | 33E | 639497 | 3569007 | MW-19 |
| C 04014 POD4 | | Shallow | 3 | 4 | 2 | 01 | 24S | 33E | 639295 | 3568859 | MW-20 |
| C 04014 POD5 | | 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 |
|-----------|-----|-----------|-----------------|
|-----------|-----|-----------|-----------------|

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

- [Genera](#)
- [History](#)
- [Comme](#)
- [Operat](#)
- [Pits](#)
- [Casing](#)
- [Well Co](#)
- [Financi](#)
- [Compli](#)
- [Inciden](#)
- [Orders](#)
- [Produc](#)
- [Transp](#)
- [Points](#)

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- [Well Lo](#)
- [Well Ad](#)

New S

- [New Fe](#)
- [New In](#)
- [New Or](#)
- [New Pi](#)
- [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 |
|------------------------------|------|---------------|--------|------|------|-----|-----|-----|-----|--------|----------|----------|-----------|------------|--------------|
| C 02284 | | CUB | LE | 4 | 2 | 4 | 26 | 23S | 33E | 637907 | 3571626* | 2322 | 325 | 225 | 100 |
| C 04014 POD5 | | CUB | LE | 1 | 4 | 2 | 01 | 24S | 33E | 639284 | 3569086 | 2443 | 95 | 85 | 10 |
| C 04014 POD4 | | CUB | LE | 3 | 4 | 2 | 01 | 24S | 33E | 639295 | 3568859 | 2506 | 96 | 86 | 10 |
| C 04014 POD3 | | CUB | LE | 2 | 4 | 2 | 01 | 24S | 33E | 639497 | 3569007 | 2668 | 95 | 87 | 8 |
| C 04014 POD2 | | CUB | LE | 4 | 4 | 2 | 01 | 24S | 33E | 639656 | 3568917 | 2842 | 95 | 81 | 14 |
| C 02281 | | CUB | LE | 3 | 4 | 4 | 28 | 23S | 33E | 634495 | 3571183* | 2897 | 545 | 400 | 145 |
| C 02308 | | CUB | LE | 1 | 3 | 1 | 10 | 24S | 33E | 634953 | 3567364* | 2909 | 40 | 20 | 20 |
| C 02283 | | CUB | LE | 4 | 2 | 2 | 26 | 23S | 33E | 637896 | 3572431* | 3062 | 325 | 225 | 100 |
| C 04014 POD1 | | CUB | LE | 1 | 1 | 3 | 06 | 24S | 34E | 639811 | 3568638 | 3064 | 91 | 81 | 10 |
| C 02282 | | CUB | LE | 3 | 1 | 1 | 25 | 23S | 33E | 638098 | 3572436* | 3139 | 325 | 225 | 100 |
| C 02280 | | CUB | LE | 3 | 2 | 4 | 28 | 23S | 33E | 634489 | 3571586* | 3148 | 650 | 400 | 250 |
| C 02278 | | CUB | LE | 3 | 4 | 2 | 28 | 23S | 33E | 634484 | 3571989* | 3427 | 650 | 400 | 250 |
| C 02279 | | CUB | LE | 3 | 4 | 3 | 28 | 23S | 33E | 633691 | 3571173* | 3584 | 650 | 400 | 250 |
| C 03591 POD1 | | CUB | LE | 2 | 1 | 4 | 05 | 24S | 33E | 632731 | 3568518 | 4275 | | | |
| C 03917 POD1 | | C | LE | 4 | 1 | 3 | 13 | 24S | 33E | 638374 | 3565212 | 4578 | 600 | 420 | 180 |
| C 04282 POD1 | | C | LE | 1 | 2 | 1 | 05 | 24S | 34E | 641662 | 3569541 | 4779 | 574 | 390 | 184 |
| C 03620 POD1 | | CUB | LE | 1 | 4 | 3 | 32 | 23S | 34E | 641790 | 3569941 | 4923 | 480 | 130 | 350 |
| C 03666 POD1 | | 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

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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 Rev 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  |
| | | | | | | | | | |
| 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 |
| | | | | | | | | | |
| Water Bearing Stratifications: | | | | | Top | Bottom | Description | | |
| | | | | | 49 | 95 | Sandstone/Gravel/Conglomerate | | |
| | | | | | | | | | |
| Casing Perforations: | | | | | Top | Bottom | | | |
| | | | | | 80 | 95 | | | |

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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  |
| | | | | | | | | | |
| 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 |
| | | | | | | | | | |
| Water Bearing Stratifications: | | | | | Top | Bottom | Description | | |
| | | | | | 35 | 96 | Sandstone/Gravel/Conglomerate | | |
| | | | | | | | | | |
| Casing Perforations: | | | | | Top | Bottom | | | |
| | | | | | 35 | 96 | | | |

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1/29/20 8:06 AM

POINT OF DIVERSION SUMMARY



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[Contact USGS](#)
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National Water Information System: Web Interface

USGS Water Resources

Data Category:


Groundwater ▼

Geographic Area:

United States ▼

GO

Click to hideNews 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

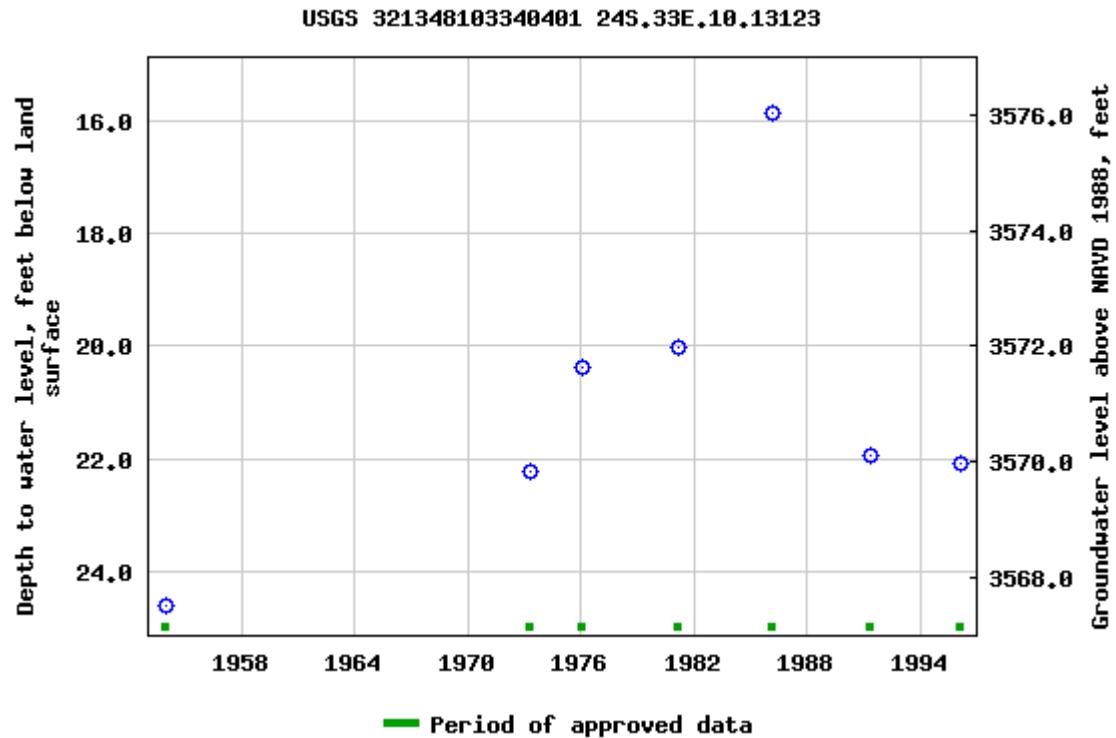
The depth of the well is 36 feet below land surface.

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.

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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 | | | | | |
| 631891 | DCL | 1998-02-09 | APP | RCV | LWD-C-21 AMENDED | T | 2.8 | 3.7 | 0 |
| 631873 | DCL | 1993-04-20 | 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 |
|--------------------------------|----------|--------|---|------------|-----|-----|-----|-----|---------------------|
| LWD 01213 POD1 | | | 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 | LWD 01213 POD1 |

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 |

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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



10 mi

Distance to Wetland



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

OSE District Boundary

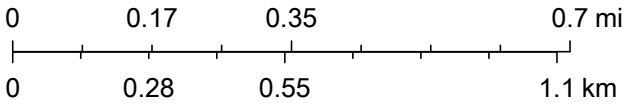
GIS WATERS PODs

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% |
| Totals for Area of Interest | | 137.4 | 100.0% |



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




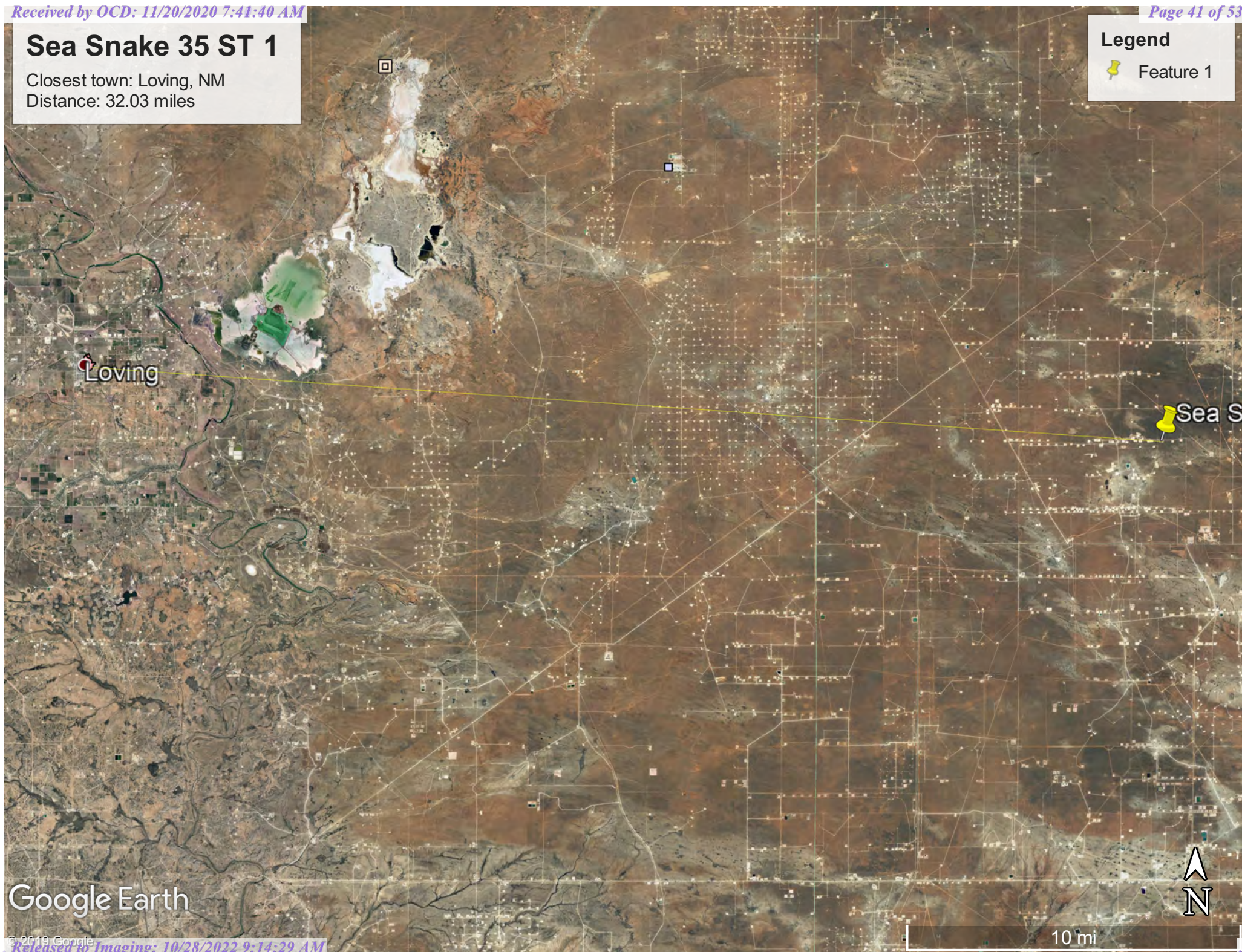
7 mi

Sea Snake 35 ST 1

Closest town: Loving, NM
Distance: 32.03 miles

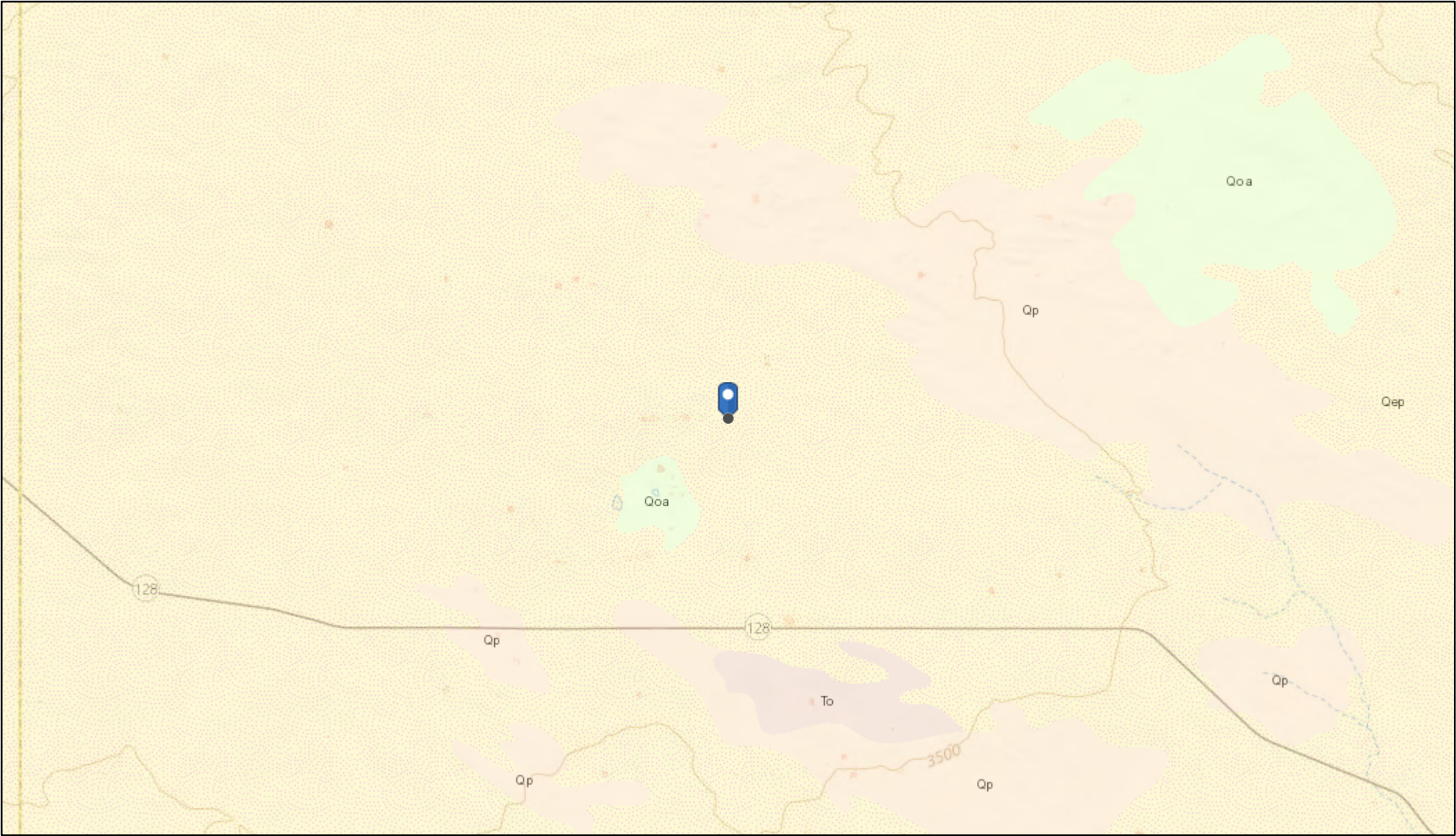
Legend

 Feature 1

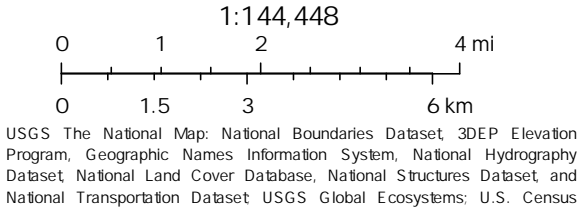


Google Earth

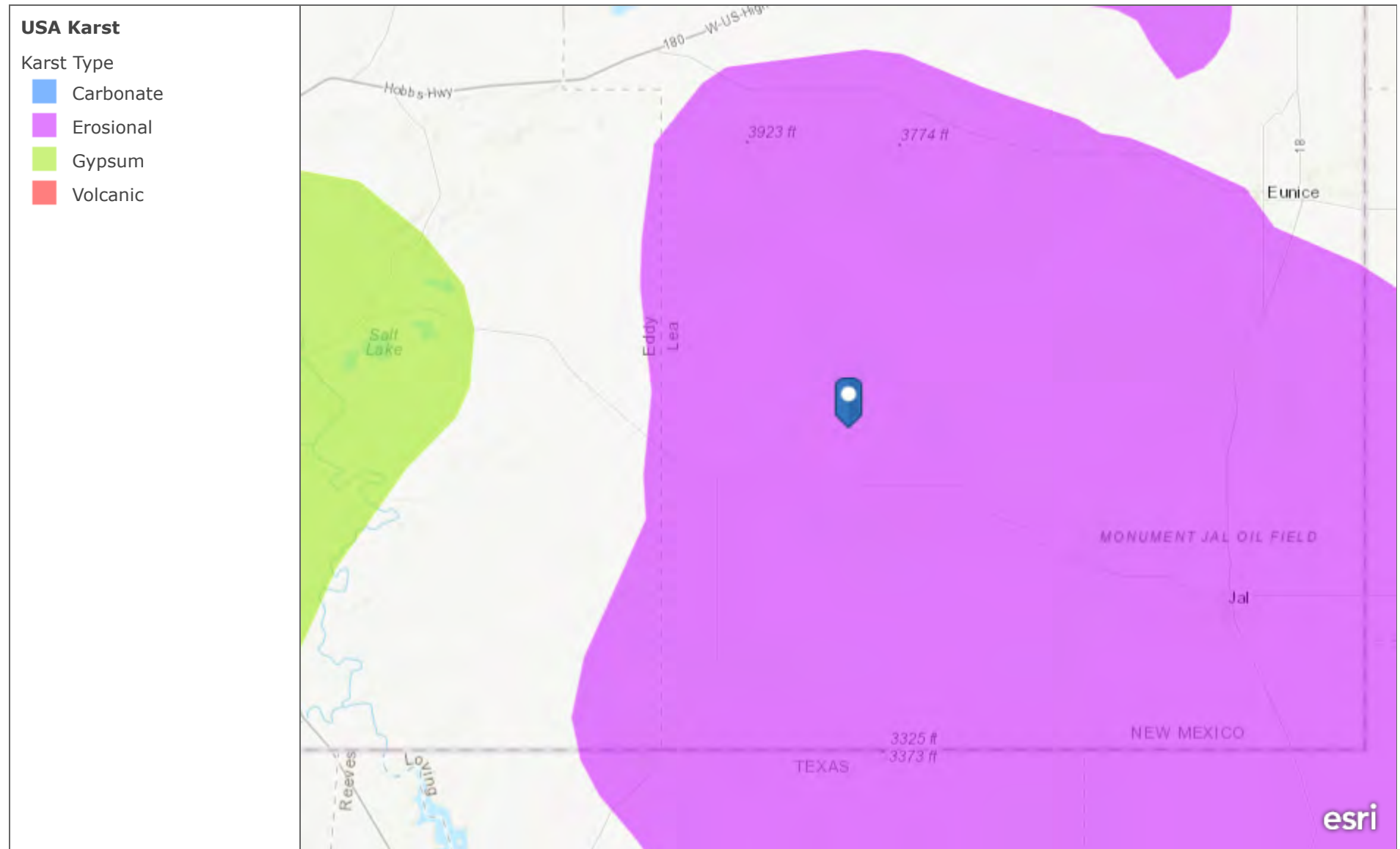
Geology Map



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>
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>, <spills@slo.state.nm.us>
Cc: <tom.bynum@dvn.com>, <amanda.davis@dvn.com>, <wesley.mathews@dvn.com>, <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

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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)



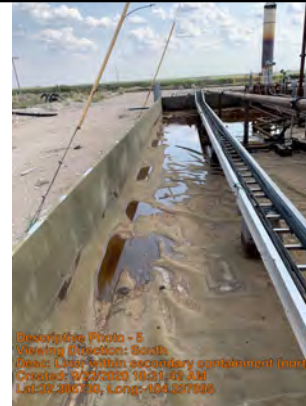
Daily Site Visit Report

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.

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 11268

CONDITIONS

| | |
|---|---|
| Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102 | OGRID: 6137 |
| | Action Number: 11268 |
| | Action Type: [C-141] Release Corrective Action (C-141) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|-----------|----------------|
| bhall | None | 10/28/2022 |