

**HRL**  
**COMPLIANCE**  
**SOLUTIONS**P.O. Box 1708 • Artesia, NM 88211  
[www.hrlcomp.com](http://www.hrlcomp.com)

July 8, 2020

Mr. Tom Bynum  
Devon Energy Production Company  
6488 Seven Rivers Highway  
Artesia, New Mexico 88210  
Email: tom.bynum@dvn.com

**Subject: Liner Inspection and Closure Report**  
**Cotton Draw 237H**  
**Incident Number: NOY1804748816**  
**Lea County, New Mexico**

Dear Mr. Bynum:

Devon Energy Production Company (Devon) (Client) retained HRL Compliance Solutions, Inc. (HRL) to conduct a liner inspection and prepare this closure report for the February 2018 release at the Cotton Draw Unit 237H well pad (Site). The Site is in Lea County, New Mexico (Figure 1).

**Release Summary and Initial Response**

On February 4, 2018, a release of six barrels (bbls.) of produced water was observed at the Site. The release was due to a leaking fitting at the tank. The entire release was contained within the lined secondary containment. Initial response activities included shutting in the well, isolating the tank, and recovering the six bbls. of fluid. On February 16, 2018 the C-141 (Attachment A) was submitted to the New Mexico Oil Conservation Division (NMOCD).

Item	Discussion
Site Name	Cotton Draw Unit 237H
Latitude	32.13793
Longitude	-103.66862
Township/Range/Section/Unit	Township 25 South/ Range 32 East/ Section 10/Unit M
Date Release Discovered	February 4, 2018
Cause of Release	Leaking valve fitting
Type of Material Released	Produced Water
Volume Release	Six barrels
Volume Recovered	Six barrels

---

**INNOVATIVE SOLUTIONS DELIVERED**



Mr. Tom Bynum  
Page 2

## Liner Inspection

On June 22, 2020, after the released fluid was removed, HRL conducted an inspection to evaluate the integrity of the liner (Attachment B, Photographs). No tears or holes were observed, and salt crust was observed within the containment structure. Based on this inspection, HRL has determined that the liner remains intact and had the ability to contain the release (Attachment C, Inspection Form).

## New Mexico Administrative Code (NMAC) Site Characterization Criteria

Title 19, Chapter 15, Part 29, Section 11 of the New Mexico Administrative Code (NMAC) provides requirements for release characterization once the free liquids and recoverable materials have been removed from the Site.

### *Site Map*

A scaled diagram depicting the site and nearby significant features has been prepared (Figure 1).

### *Depth to Groundwater*

Depth to groundwater at the release was estimated by evaluating data from the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) (Figure 2). The nearest groundwater well was approximately 2.4 miles from the Site; the depth to water in this well was 289.50 feet below ground surface (bgs).

### *Wellhead Protection Area*

There are no sources of water, including springs, wells, or other sources of fresh water, within one-half mile of the release.

### *Distance to Nearest Significant Watercourse*

A significant watercourse is defined as "...a watercourse with a defined bed and bank either named or identified by a dashed blue line on a USGS 7.5-minute quadrangle map or the next lower order tributary with a defined bed and bank" (19.15.17.7 NMAC). There are no significant watercourses within one-half mile of the Site.

### *Additional Site Characterization Criteria*

The following additional site characterization criteria were evaluated for the release.

Site Characterization	Response/Discussion
What is the shallowest depth to groundwater beneath the area affected by the release?	Greater than 100 feet
Did the release impact groundwater or surface water?	No

Cotton Draw 237H  
July 8, 2020



Mr. Tom Bynum  
Page 3

Site Characterization	Response/Discussion
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or other significant watercourse?	No
Are the lateral extents of the release within 200 feet of a lakebed, sinkhole, or playa lake?	No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital institution, or church?	No
Are the lateral extents of the release within 500 feet of a spring or private, domestic fresh water well used by less than five households for domestic or stock watering purposes?	No
Are the lateral extents of the release within 1,000 feet of any fresh water well or spring?	No
Are the lateral extents of the release within any incorporated municipal boundaries?	No
Are the lateral extents of the release within a defined municipal fresh water well field?	No
Are the lateral extents of the release within 300 feet of a wetland?	No
Are the lateral extents of the release overlying a subsurface mine?	No
Are the lateral extents of the release overlying an unstable area such as karst geology?	The Site is in an area of low potential for karst topography
Are the lateral extents of the release within the 100-year floodplain?	No
Did the release impact areas not on an exploration, development, production, or storage site?	No

## Conclusions and Recommendations

The February 4, 2018 release of six barrels of produced water was contained within the lined containment structure. HRL has determined that the liner integrity remains intact and had the ability to contain the release; therefore, additional characterization of the soil and/or groundwater at the Site is not necessary. HRL recommends closure of this release.

---

Cotton Draw 237H  
July 8, 2020



Mr. Tom Bynum  
Page 4

### Scope and Limitations

The scope of HRL's services consists of performing a liner integrity inspection and preparation of this closure report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin.

If you have any questions or concerns, please do not hesitate to contact me at (970) 243-3271 or via email at [jlinn@hrlcomp.com](mailto:jlinn@hrlcomp.com).

Sincerely,

**HRL Compliance Solutions, Inc.**

Julie Linn, PG, RG  
Project Manager

### Figures:

Figure 1: Site Location Map

Figure 2: Depth to Groundwater Map

### Attachments:

Attachment A: NMOCD Form C-141

Attachment B: Photographs

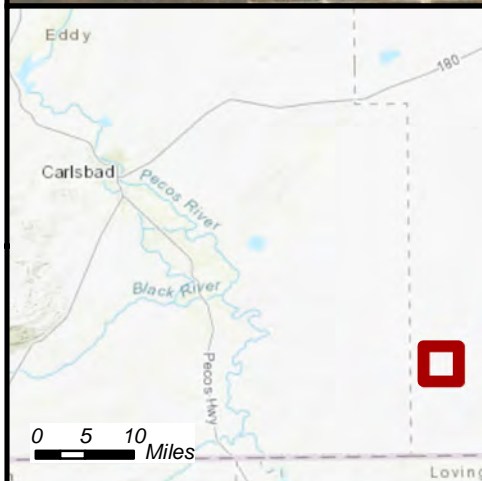
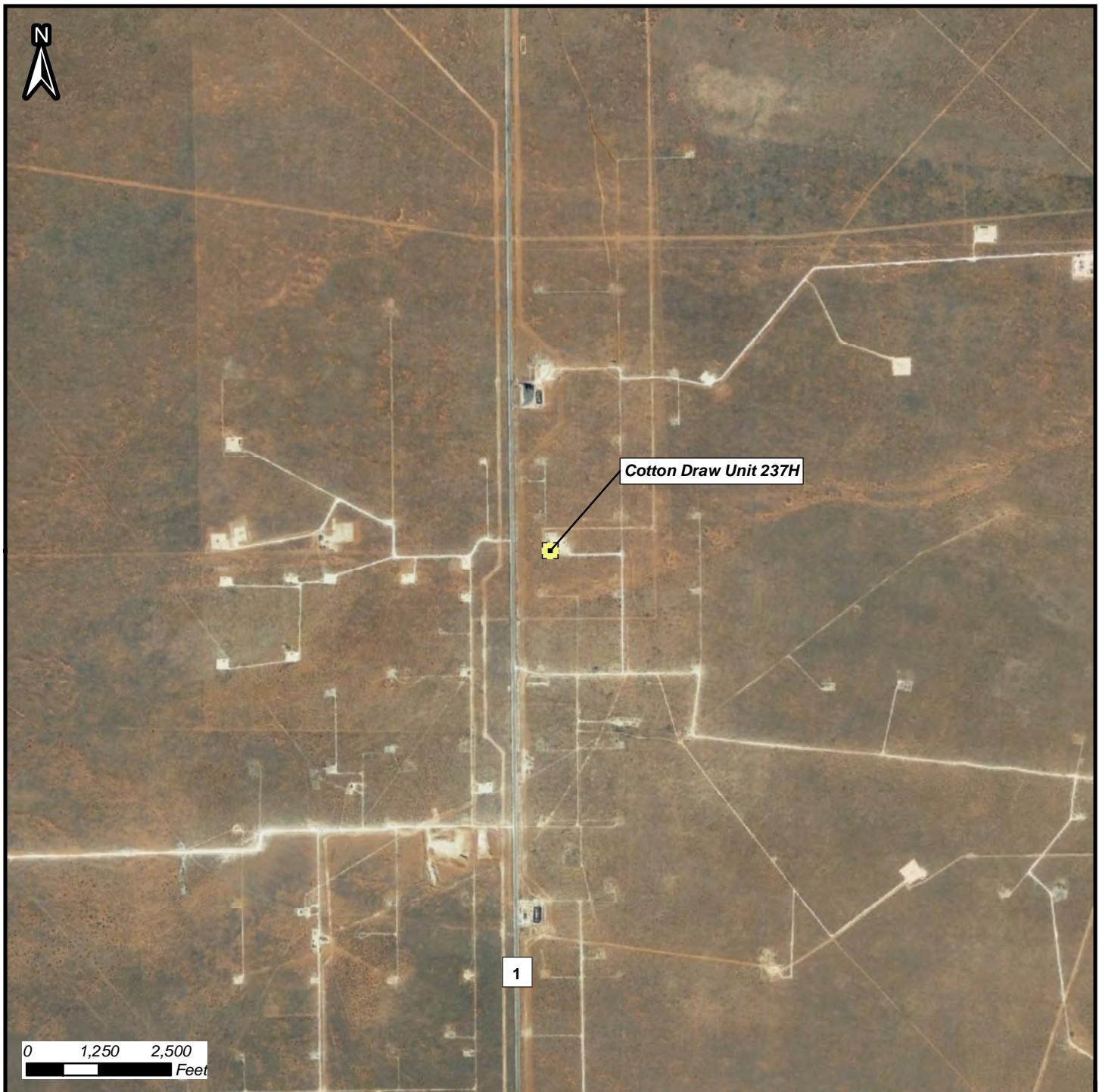
Attachment C: Liner Inspection Field Form

---

Cotton Draw 237H  
July 8, 2020



## Figures



### Figure 1: Site Location Map

Cotton Draw Unit 237H

February 2018 Spill

32.13793, -103.66862

Section 10, Township 25 South, Range 32 East

NOTES / COMMENTS:

#### Mapped Features

 Facility Location

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.



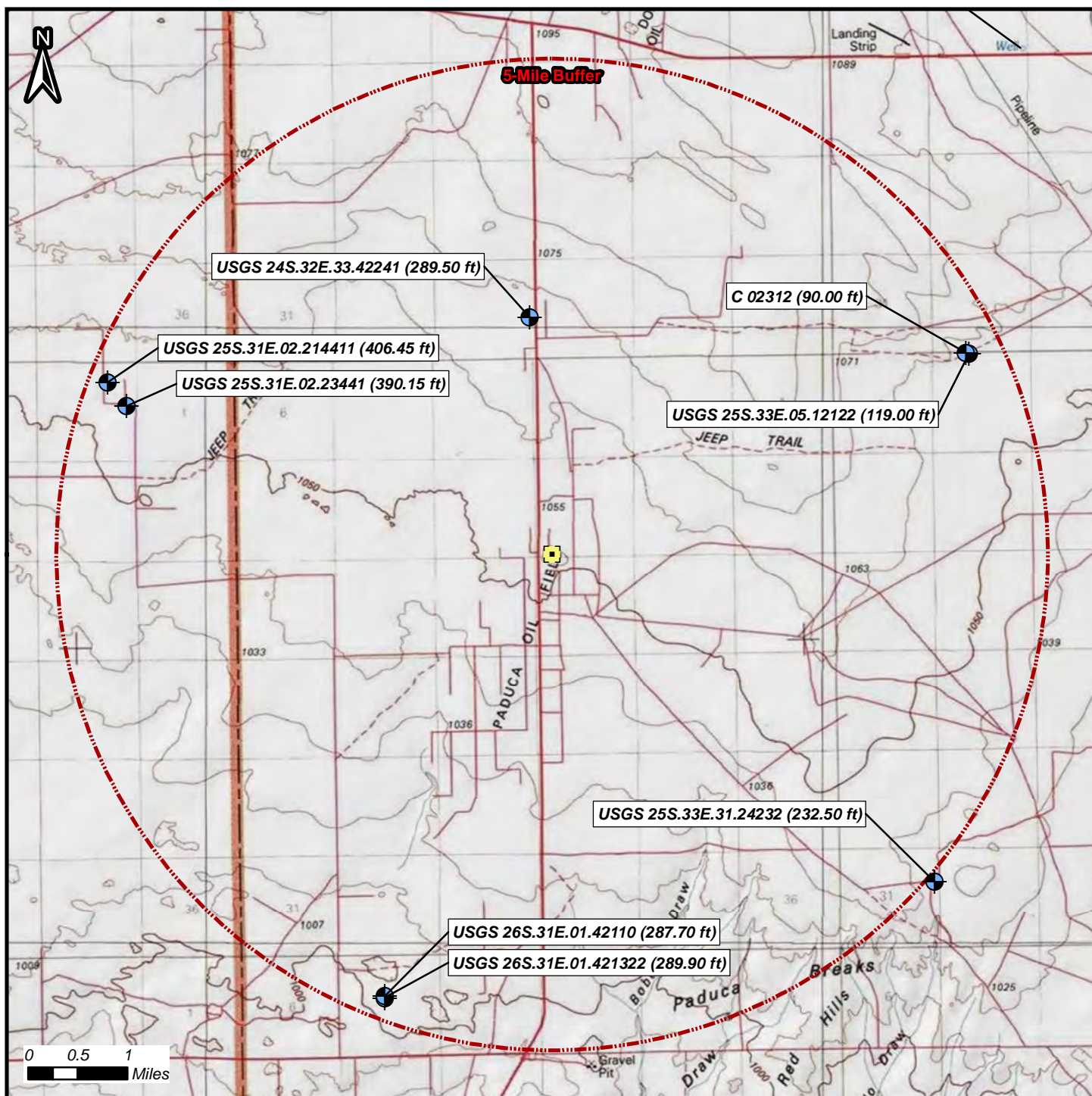
Author: A. Asay

Revision: 0

Date: 7/6/2020

T:\CLIENTS\DEVON ENERGY\2020\Cotton Draw Unit 237H\Maps\Cotton Draw Unit 237H Federal 3H Site Location Map 070620.mxd



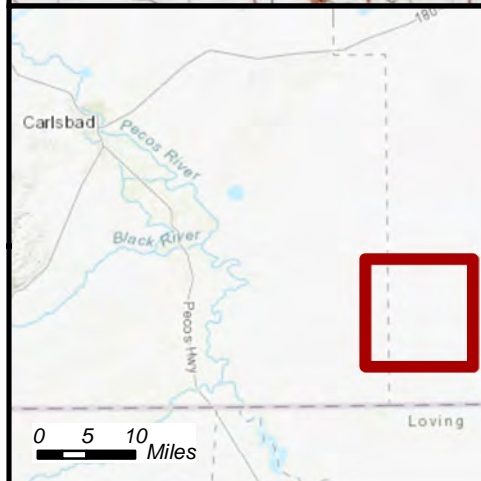
**Figure 2: Depth to Groundwater Map**

Cotton Draw Unit 237H

February 2018 Spill

32.13793, -103.66862

Section 10, Township 25 South, Range 32 East



Well Number	Water Level Below Ground Surface (ft)	Distance from Source (mi)
USGS 24S.32E.33.42241	289.50	2.40
USGS 26S.31E.01.421322	289.90	4.78
USGS 26S.31E.01.42110	287.70	4.76
USGS 25S.31E.02.23441	390.15	4.55
USGS 25S.31E.02.214411	406.45	4.81
USGS 25S.33E.31.24232	232.50	5.08
USGS 25S.33E.05.12122	119.00	4.67
C 02312	90.00	4.64

**Mapped Features**

- Point of Release
- Groundwater Well
- 5-Mile Buffer



DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.

Author: A. Asay

Revision: 0

Date: 7/6/2020



**Attachment A**  
**NMOCD Form C-141**



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised April 3, 2017

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 Wesley Ryan, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-390-5436
Facility Name Cotton Draw Unit 237H	Facility Type Oil
Surface Owner Federal	Mineral Owner Federal
API No. 30-025-41996	

### LOCATION OF RELEASE

Unit Letter M	Section 10	Township 25S	Range 32E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
------------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	---------------

Latitude\_32.13793\_ Longitude\_103.66862\_ NAD83

### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 6bbls	Volume Recovered 6bbls
Source of Release Water tank	Date and Hour of Occurrence February 4, 2018 @ 11:00 AM MST	Date and Hour of Discovery February 4, 2018 @ 11:00 AM MST
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
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		


**RECEIVED**

**By Olivia Yu at 1:27 pm, Feb 16, 2018**

Describe Cause of Problem and Remedial Action Taken.\*  
A 3 inch victaulic fitting was leaking at the water production tank. The well was shut in and the tank was isolated to stop the release.

Describe Area Affected and Cleanup Action Taken.\*  
Approximately 6bbls of produced water was released into the lined SPCC containment ring. A vacuum truck was dispatched and recovered approximately 6bbls of produced water from lined containment. All fluid stayed inside the lined SPCC containment. Once fluids were removed the liner was visually inspected by Devon field staff for any pinholes or punctures and none were found. Based on this inspection there is no evidence that the spill fluids left containment.

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: <i>Sheila Fisher</i>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Sheila Fisher		Approved by Environmental Specialist: 	
Title: Field Admin Support		Approval Date: <b>2/16/2018</b>	Expiration Date:
E-mail Address: Sheila.Fisher@dv.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 2/16/18 Phone: 575.748.1829		Please inspect liner in question. Provide NMOCD with a concise report of the inspection with affirmation the liner has and will continue to contain liquids.	

\* Attach Additional Sheets If Necessary

**nOY1804748816**

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	nOY1804748816
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>&gt;100</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

State of New Mexico  
Oil Conservation Division

Incident ID	nOY1804748816
District RP	
Facility ID	
Application ID	

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.

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: 7/8/2020

email: tom.bynum@dvn.com Telephone: 575-748-0176

**OCD Only**

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

State of New Mexico  
Oil Conservation Division

Incident ID	nOY1804748816
District RP	
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: 7/8/2020

email: tom.bynum@dvn.com Telephone: 575-748-0176

**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: 9/13/2022

Printed Name: Brittany Hall Title: Environmental Specialist



## Cotton Draw Unit 237H

6bbbs pw\_2.4.18

devon

This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
Prepared by: Sheila Fisher  
Map is current as of: 06-Feb-2018



Miles

0 0.02 0.04 0.07 1:3,557







## **Attachment B**

### **Photographs**



View of the  
secondary  
containment to  
the west



View of the  
secondary  
containment in  
between tanks





View of the  
secondary  
containment to  
the east



View of the  
secondary  
containment







View of the  
secondary  
containment



View of the  
secondary  
containment





**Attachment C**  
**Liner Inspection Field Form**

HRL  
COMPLIANCE  
SOLUTIONS

## Liner Inspection Form

Client

Devon

Date of Inspection

6-22-2020

Site Name

Cotton Draw 237 H

Latitude

32.13793

Longitude

-103.66862

Observations	Yes	No	Comments
Is the liner present?	✓		
Is the liner torn?		✓	
Are there visible holes in the liner?		✓	
Is the liner retaining any liquids?		✓	
Does it appear the liner had the ability to contain the leak?	✓		Salt crust visible inside liner

Type of Liner:

Poly

Earthen

Metal

Other (describe below):

Other Concerns or Observations:

Inspector Name

Julie Linn

Inspector Signature

julie L

**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 9156

CONDITIONS

Operator: Pima Environmental Services, LLC 5614 N Lovington Hwy Hobbs, NM 88240	OGRID: 329999
	Action Number: 9156
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	9/13/2022