

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

August 6, 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**  
**Lone Tree Draw 13 ST 2H Battery**  
**Incident # NRM2020234834**  
**Eddy 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 July 8, 2020 release at the Lone Tree Draw 13 ST 2H battery (Site). The Site is in Eddy County, New Mexico (Figure 1).

**Release Summary and Initial Response**

On July 8, 2020, a release of 80 barrels of produced water was observed at the Site. The release occurred when the high-level alarm failed on a produced water tank. The entire release was contained within the lined secondary containment structure. Initial response activities included stopping the source of the release, securing the impacted area, and removing free liquids within the secondary containment. 80 barrels of produced water was recovered. On July 8, 2020 the C-141 (Attachment A) was submitted to the New Mexico Oil Conservation Division (NMOCD).

Item	Discussion
Site Name	Lone Tree Draw 13 ST 2H
Latitude	32.487207
Longitude	-103.149976
ULSTR	A - 13 - 21S - 27E
Release Number	NRM2020234834
Date Release Discovered	July 8, 2020
Cause of Release	High level alarm failed
Type of Material Released	Produced Water
Volume Release	80 barrels

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**INNOVATIVE SOLUTIONS DELIVERED**



Mr. Tom Bynum  
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Item	Discussion
Volume Recovered	80 barrels

### **Liner Inspection**

On July 23, 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 in the liner and the liner was retaining a small amount of water and oil. Based on this inspection, HRL has determined that the liner remains intact and fully contained 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 0.4 mile from the Site; the depth to water in this well was 25 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 (Figure 2).

#### *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 (Figure 2).

#### *Additional Site Characterization Criteria*

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



Mr. Tom Bynum

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Site Characterization	Response/Discussion
What is the shallowest depth to groundwater beneath the area affected by the release?	Less than 50 feet
Did the release impact groundwater or surface water?	No
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 high 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 July 8, 2020 release of 80 barrels of produced at the Site was completely contained within the lined containment structure. HRL has determined that the liner integrity was good and completely contained the release; therefore, additional characterization of the soil and/or groundwater at the Site is not necessary. HRL recommends closure of this release.



Mr. Tom Bynum  
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### 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.**

A handwritten signature in blue ink, appearing to read 'Julie Linn', with a stylized flourish at the end.

Julie Linn, PG, RG  
Project Manager

### Figures:

Figure 1: Site Location

Figure 2: Depth to Groundwater

### Attachments:

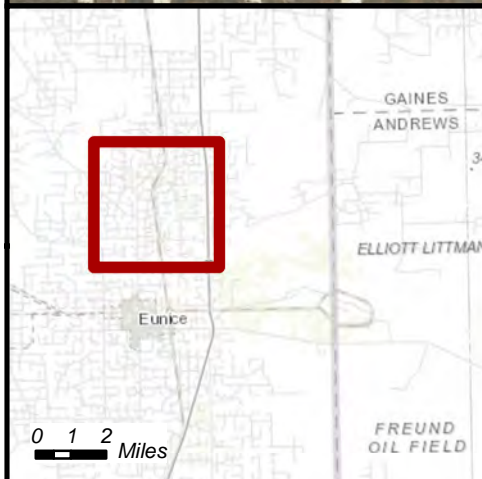
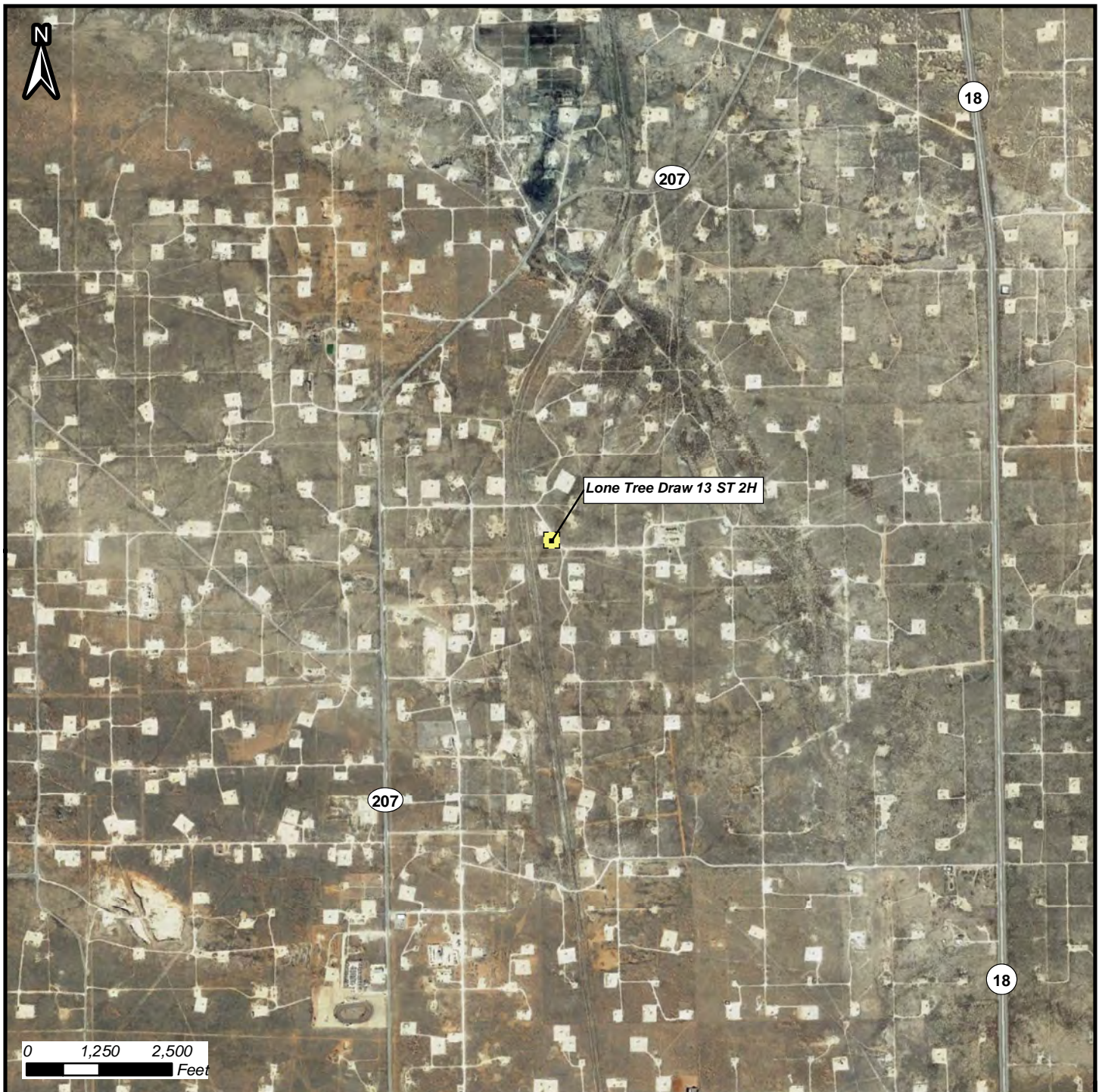
Attachment A: NMOCD Form C-141

Attachment B: Photographs

Attachment C: Liner Inspection Field Form



## Figures



### Figure 1: Site Location Map

Lone Tree Draw 13 ST 2H  
July 2020 Release

32.487207, -103.149976  
Section 10, Township 21 South, Range 37 East

NOTES / COMMENTS:

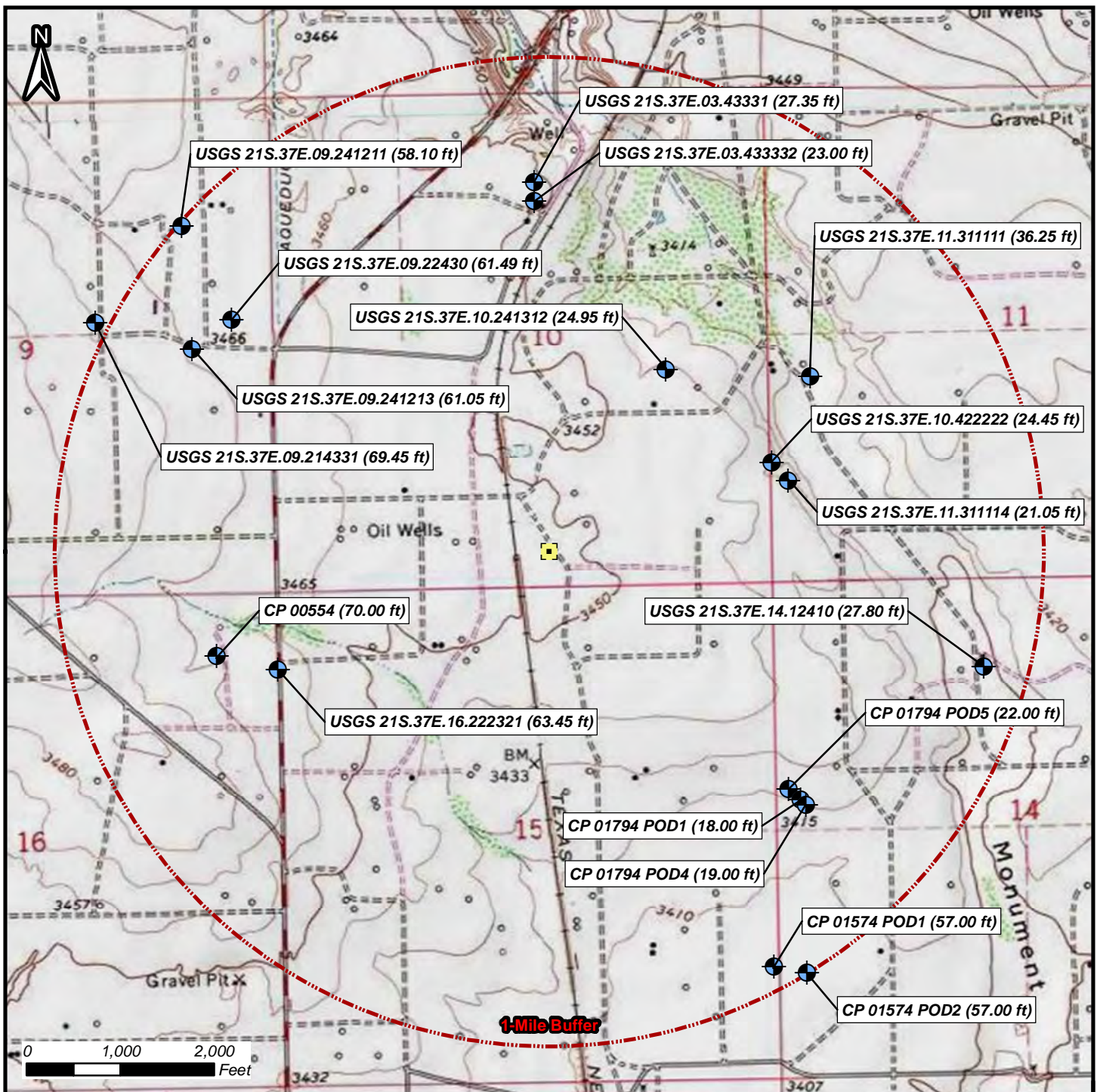
#### Mapped Features

 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: 7/30/2020

**Figure 2: Depth to Groundwater Map**

Lone Tree Draw 13 ST 2H

July 2020 Release

32.487207, -103.149976

Section 10, Township 21 South, Range 37 East

**Mapped Features**

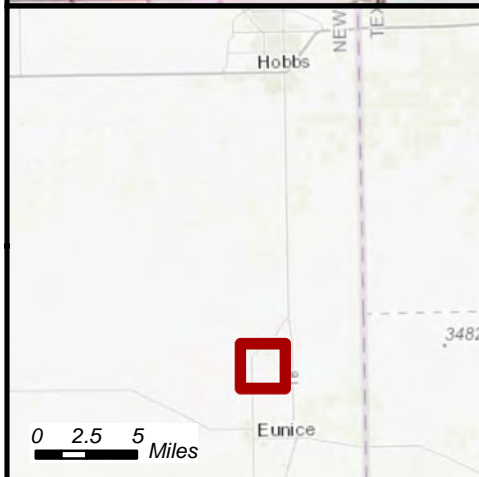
- Point of Release
- Groundwater Well
- 1-Mile Buffer

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Author: A. Asay

Revision: 0

Date: 7/31/2020



Well Number	Water Level Below Ground Surface (ft)	Distance from Source (mi)
USGS 21S.37E.09.222321	63.45	0.60
USGS 21S.37E.09.241211	61.05	0.83
USGS 21S.37E.09.22430	61.49	0.79
USGS 21S.37E.09.241213	61.05	1.03
USGS 21S.37E.09.214331	69.45	0.99
USGS 21S.37E.10.241312	24.95	0.71
USGS 21S.37E.11.311111	36.25	0.75
USGS 21S.37E.10.422222	24.45	0.44
USGS 21S.37E.11.311114	21.05	0.64
USGS 21S.37E.14.12410	27.80	0.48
USGS 21S.37E.16.222321	63.45	0.50
CP 00554	70.00	0.50
CP 01794 POD5	22.00	0.68
CP 01794 POD1	18.00	0.71
CP 01794 POD4	19.00	0.73
CP 01574 POD1	57.00	0.71
CP 01574 POD2	57.00	1.00
CP 01574 POD3	57.00	1.00



**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 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: _____

<b>Spills In Lined Containment</b>	
Measurements Of Standing Fluid	
Length(Ft)	30
Width(Ft)	150
Depth(in.)	1.7
Total Capacity without tank displacements (bbls)	113.54
No. of 500 bbl Tanks In Standing Fluid	7
No. of Other Tanks In Standing Fluid	
OD Of Other Tanks In Standing Fluid(feet)	
Total Volume of standing fluid accounting for tank displacement.	80.23

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Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NRM2020234834
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?	<50 (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 checked="" type="checkbox"/> Yes <input 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

Incident ID	NRM2020234834
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: 8/7/2020

email: tom.bynum@dvn.com Telephone: 575-748-3371

**OCD Only**

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

Incident ID	NRM2020234834
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: 8/7/2020

email: tom.bynum@dvn.com Telephone: 575-748-3371

**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 B**

### **Photographs**



West side of  
the tank  
battery, view  
to the north



Northeast  
corner of the  
tank battery,  
view to the  
north

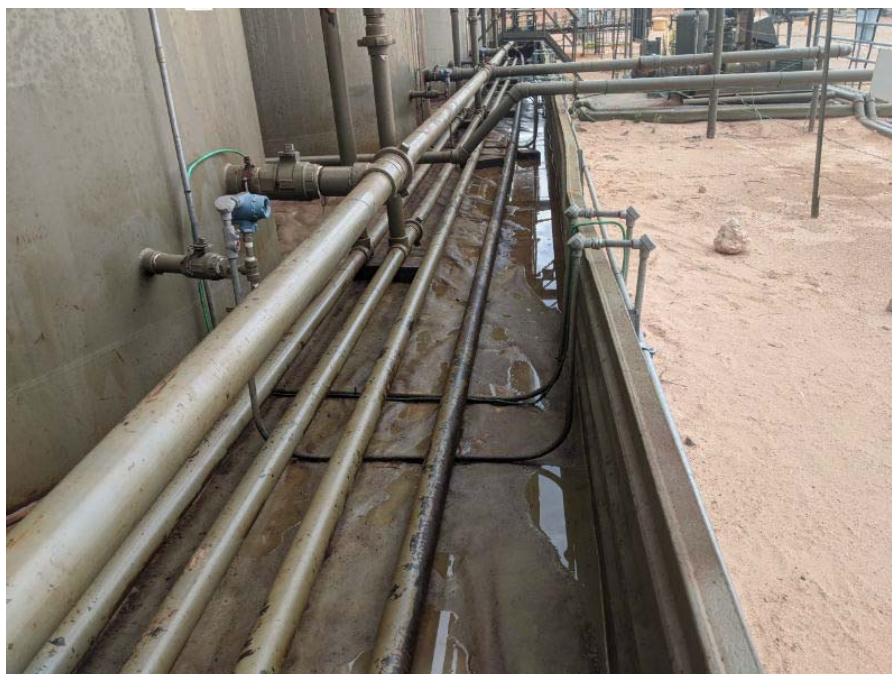




East side of the  
tank battery,  
view to the  
south



East side of the  
tank battery,  
view to the  
north





East side of the  
tank battery,  
view to the  
south



View to the  
west in  
between two  
tanks





**Attachment C**

**Liner Inspection Field Form**



HRL  
COMPLIANCE  
SOLUTIONS

### Liner Inspection Form

Client Devon Energy

2-Day Notification sent to NMOCD 7-21-2020

Date of Inspection 7-23-2020

Site Name Lone Tree 13 ST 2H

Latitude 32.487207

Longitude - 104.149976

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?	✓		Small vol. Water + oil
Does it appear the liner had the ability to contain the leak?	✓		

Type of Liner: PolyStar      Earthen with liner      Earthen no liner

Metal with Plastic Lining      Metal with Epoxy Lining

Other (describe here): \_\_\_\_\_

#### Other Concerns or Observations:

Ref: nRM 2020234834

date of Release: 7-8-2020

Inspector Name Julie Linn

Inspector Signature Julie L