



HRL
COMPLIANCE
SOLUTIONS

P.O. Box 1708 • Artesia, NM 88211
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
Ichabod 7 Federal #001H
Incident Number: nOY1726845335
Lea County, New Mexico

Dear Mr. Bynum:

HRL Compliance Solutions, Inc. (HRL) is pleased to submit this liner inspection and closure report for the August 10th, 2017 release at the Ichabod 7 Federal #001H well pad (Site). The Site is at latitude 32.0511932 and longitude -103.5014954 in Lea County, New Mexico (Figure 1).

Release Summary and Initial Response

On August 10th, 2017, a release of 32 barrels of oil was observed at the Site. The release was due to overflow of the oil tank. The released oil remained within the lined steel secondary containment. Initial response activities included stopping the source of the release, securing the impacted area, containing the released materials, and removing free liquids within the secondary containment. 32 barrels of oil were recovered. Devon reported the release to the NMOCD on a Release Notification and Corrective Action Form (Form C-141) (Attachment A). The release was assigned incident number nOY1726845335.

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.

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 the United States Geological Survey (USGS) (Figure 2). The nearest groundwater well was approximately 1 mile from the Site; the depth to water in this well was 200 feet below ground surface (bgs).

INNOVATIVE SOLUTIONS DELIVERED



Mr. Tom Bynum

Page 2

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) (Figure 2). There are no significant watercourses within one-half mile of the lateral extents of the release.

Additional Site Characterization Criteria

The following is additional information related to characterization of the Site.

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
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

Ichabod 7 Federal #001H

August 6, 2020



Mr. Tom Bynum

Page 3

Site Characterization	Response/Discussion
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

Liner Inspection

On February 5, 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 precipitation. Based on this inspection, HRL has determined that the liner remains intact and had the ability to contain the release (Attachment C, Inspection Form).

Conclusions and Recommendations

The August 10th, 2017 release of 32 barrels of oil at the Site remained within the lined containment. 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.

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.

Sincerely,

HRL Compliance Solutions, Inc.

Julie Linn, PG, RG
Project Manager

Figures:

Figure 1: Site Location

Ichabod 7 Federal #001H
August 6, 2020



Mr. Tom Bynum
Page 4

Figure 2: Depth to Groundwater

Attachments:

Attachment A: NMOCD Form C-141

Attachment B: Photographs

Attachment C: Liner Inspection Field Form

Ichabod 7 Federal #001H
August 6, 2020



Figures

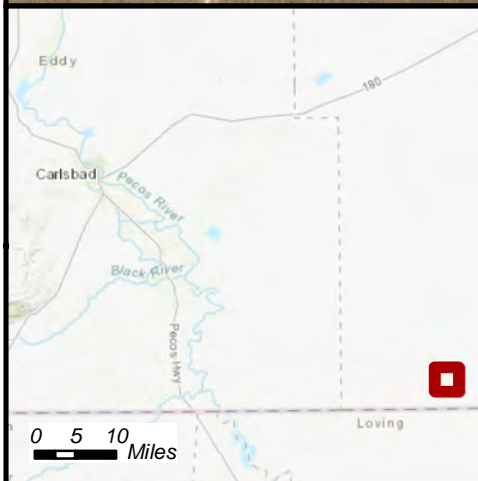
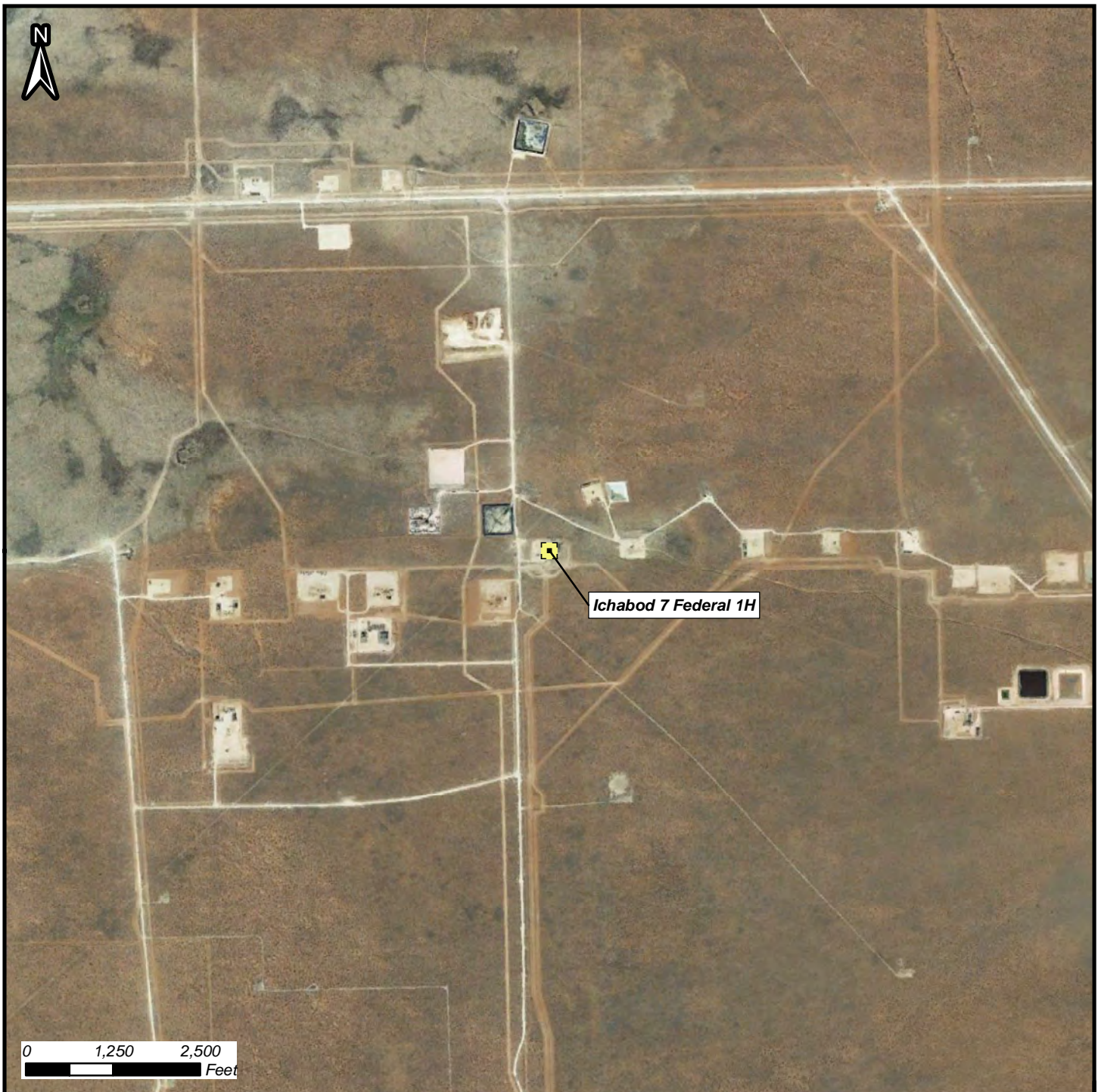


Figure 1: Site Location Map

Ichabod 7 Federal 1H
August 2017 Spill

32.0511932, -103.5014954
Section 7, Township 26 South, Range 34 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: 7/14/2020

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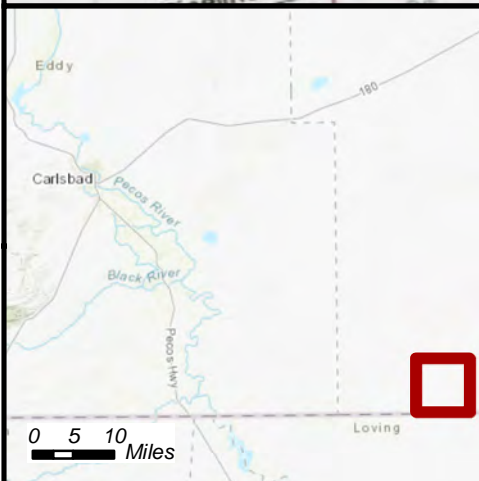
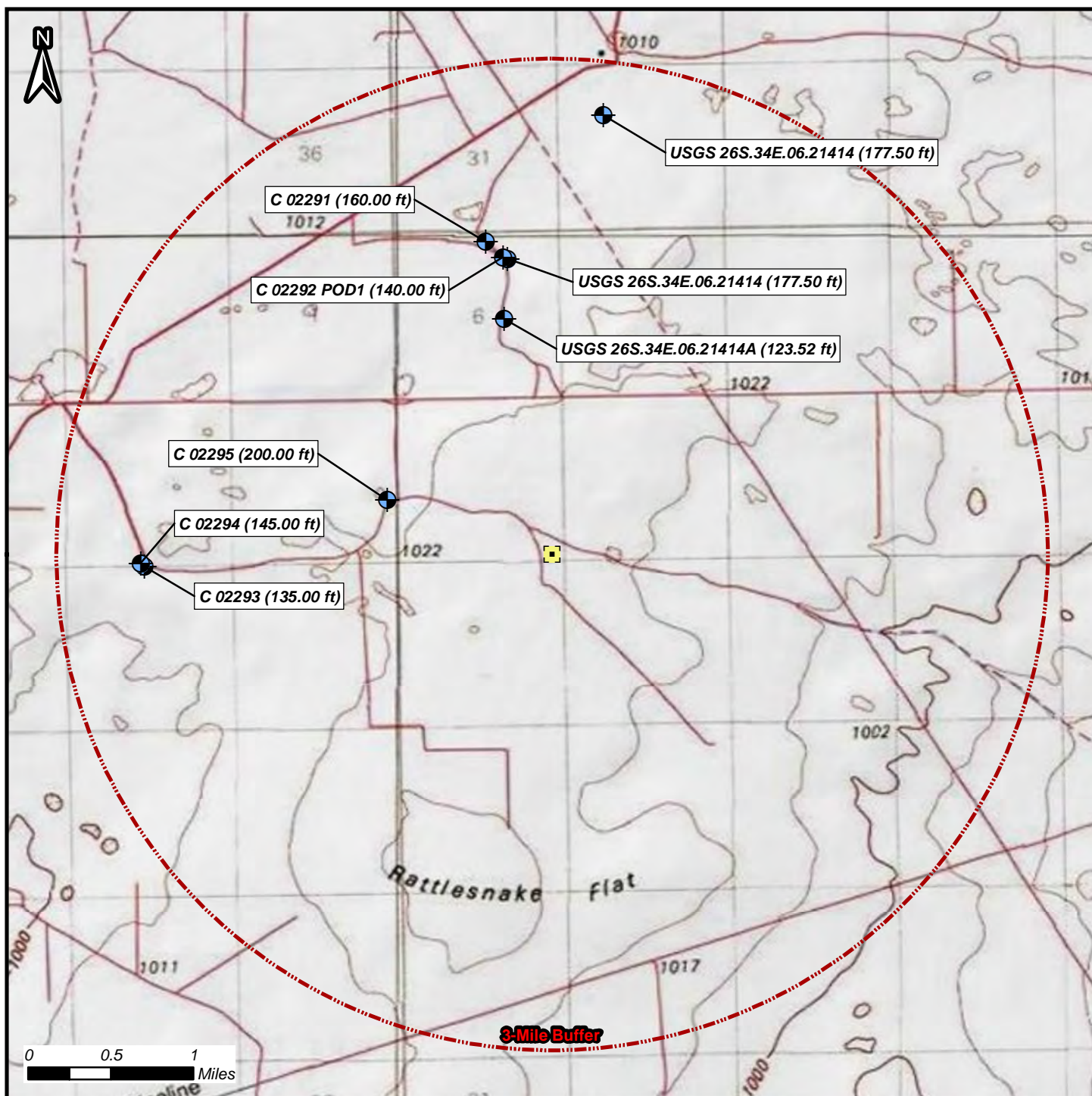


Figure 2: Depth to Groundwater Map

Ichabod 7 Federal 1H

August 2017 Spill

32.0511932, -103.5014954

Section 7, Township 26 South, Range 34 East

Well Number	Water Level Below Ground Surface (ft)	Distance from Source (mi)
USGS 26S.34E.06.21414A	123.52	1.46
USGS 26S.34E.06.21414	177.50	1.81
USGS 25S.34E.29.343322	128.50	2.68
C 02295	200.00	1.05
C 02292 POD1	140.00	1.82
C 02291	160.00	1.94
C 02293	135.00	2.47
C 02294	145.00	2.49

Mapped Features

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



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Author: A. Asay

Revision: 0

Date: 7/14/2020



Attachment A
NMOCD Form C-141

4441 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 Rebecca Jamison, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-513-5538
Facility Name Ichabod 7 Federal 1H	Facility Type Oil
Surface Owner Federal	Mineral Owner Federal
API No 30-025-40043	

LOCATION OF RELEASE

Unit Letter P	Section 7	Township 26S	Range 34E	Feet from the 195	North/South Line South	Feet from the 330	East/West Line East	County Lea
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Latitude: 32.0511932

Longitude: -103.5014954

NATURE OF RELEASE

Type of Release Oil	Volume of Release 32BBLS	Volume Recovered 32BBLS
Source of Release Hole in Oil Storage tank	Date and Hour of Occurrence 8/10/2017 @ 5:30 PM	Date and Hour of Discovery 8/10/2017 @ 5:30 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD-Olivia Yu BLM-Shelly Tucker	
By Whom? Aaron Pina, Asst. Production Foreman	Date and Hour BLM-9/7/2017 @ 2:00 PM OCD-9/7/2017 @ 2:05 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	
If a Watercourse was Impacted, Describe Fully.* N/A		

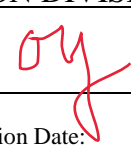
RECEIVED

By Olivia Yu at 12:28 pm, Sep 25, 2017

Describe Cause of Problem and Remedial Action Taken.* A hole in the oil storage tanks was discovered and resulted in oil release. Oil storage tanks overflowed into the lined containment.
--

Describe Area Affected and Cleanup Action Taken.* Approximately 32BBLS of oil was released as a result of a hole in the bottom of the oil storage tank. Approximately 32BBLS was recovered via the dispatched vacuum truck. 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: Dana DeLaRosa	OIL CONSERVATION DIVISION	
Printed Name: Dana DeLaRosa	Approved by Environmental Specialist: 	
Title: Field Admin Support	Approval Date: 9/25/2017	Expiration Date:
E-mail Address: dana.delarosa@dvn.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 9/22/2017 Phone: 575.746.5594	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

nOY1726845335



Ichabod 7 Federal 1H
32BBLs Oil_9.7.2017



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. The user makes no warranty, kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: Dana DeLaRosa
Map is current as of: 22-Sep-2017



Miles
0 0.00 0.01 0.02 1:889

Devon_Google_Maps_J
magery

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	nOY1726845335
District RP	No-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>>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 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

Incident ID	nOY1726845335
District RP	No-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	nOY1726845335
District RP	No-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: Brittany Hall Date: 9/13/2022

Printed Name: Brittany Hall Title: Environmental Specialist



Attachment B

Photographs



View of standing water
between the tanks in
the secondary
containment.



View of standing water
and ice in the corner of
the secondary
containment.





View of standing water and ice within the secondary containment.



View of frozen standing water in the corner of the secondary containment.





Attachment C

Liner Inspection Field Form

**HRL**
COMPLIANCE
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Liner Inspection Form

Client Devon Energy

Date of Inspection 2/5/20

Site Name 1CHABOD 7 Fed IH

Latitude 32.051257

Longitude -103.501414

Observations	Yes	No	Comments
Is the liner present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is the liner torn?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there visible holes in the liner?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is the liner retaining any liquids?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Does it appear the liner had the ability to contain the leak?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Type of Liner: Poly Earthen Metal Other (describe below):

Other Concerns or Observations:

Metal Secondary Containment

Standing water up to 2 inches on north end to the center

ice in secondary containment

Photos 50-69

Inspector Name Anna McCauley

Inspector Signature [Signature]

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 9561

CONDITIONS

Operator: Pima Environmental Services, LLC 5614 N Lovington Hwy Hobbs, NM 88240	OGRID: 329999
	Action Number: 9561
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

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