GRIZZLY ENERGY

Grizzel B Central Tank Battery

Closure Report

API No. 30-025-36228
1RP-5317
Release Date: 12/14/2018
U/L H, Section 08, Township 22S, Range 37E
Lea County

04/23/2020
Prepared by:

4024 Plains Highway
Lovington, NM 88260
Phone: (575) 390-6397

April 23, 2020

New Mexico Energy, Minerals & Natural Resources
NMOCD District II
C/O Mike Bratcher, Robert Hamlet & Victoria Venegas
811 S. First Street
Artesia, NM 88210

Grizzly Energy, LLC
C/O Carmen Pitt
4001 Penbrook, Suite 201
Odessa, TX 79762

Subject: Closure Request for Grizzly Energy, LLC – Grizzel B Central Tank Battery

To Whom It May Concern,

On behalf of Grizzly Energy, LLC, Hungry Horse, LLC (HH) has prepared this CLOSURE REPORT that describes the assessment and remediation for the release associated with the Grizzel B Central Tank Battery, dated 12/14/2018 with the RP #1RP-5317.

BACKGROUND

This site is located in Lea County, New Mexico. The release was located on December 14th, 2018. The release was due to high winds that broke the power line to the battery causing the transfer pumps to fail. The tanks filled and overran into a lined containment. A vacuum truck removed the standing fluid and the line was repaired. A 35' x 50' area inside the containment was impacted. The corresponding C-141 for the release is attached.

GROUND WATER INFORMATION

HH has conducted a ground water study of this area. It has been determined that according to the New Mexico Office of the State Engineer, the average depth of ground water is 83'bgs (below ground surface). The top three closest wells to the site are listed below

CP 01353 POD1 – shows the well is set at 93'bgs, with ground water depth of 73'bgs and is 561' from the site.
CP 00560 POD1 – shows the well is set at 350'bgs with no ground water depth indicated and is 745' from the site.
CP 00871 – shows the well is set at 167'bgs with ground water depth of 94'bgs and is 886' from the site.

CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

DGW	Constituent	Method	Limit
51'-100'	Chloride	EPA 300.0 OR SM4500 CLB	10,000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 METHOD 8015M	2,500 mg/kg
	GRO + DRO	EPA SW-846 METHOD 8015M	1,000 mg/kg
	BTEX	EPA SW-846 METHOD 8021B OR 8260B	50 mg/kg
	Benzene	EPA SW-846 METHOD 8021B OR 8260B	10 mg/kg

The Closure Criteria for Soils Impacted by a Release above, based on ground water depth of 73'bgs, which falls under the 51-100' depth category. Please see attached groundwater information.

KARST MAPPING

The Karst Mapping Data found for this site is located inside the low marked area in green. Please see the attached Karst Map that is attached herein.

BACKGROUND

This was a lined earthen berm with a surface area of 4,384.86 sq. ft. A crew was sent to the site on 09/04/2019 to begin hand excavation of the impacted soil on top of the liner. Soil was stockpiled on plastic. On 09/09/2019 18 yds of contaminated material were loaded and hauled to Sundance Disposal. The liner was power washed, allowed to dry, then inspected revealing no obvious signs of perforation noted. 36 yds of 3/8" gravel was hauled in to backfill the location.

SCOPE AND LIMITATIONS

The scope of our services consisted of the performance of excavation of impacted soil on the liner, liner inspection, regulatory liaison and preparation of this closure report. All work has been performed in accordance with the NMOCD Rules and Regulations for Spills and Releases.

On behalf on Grizzly Energy, LLC and Hungry Horse, LLC, we respectfully request closure of the release on the Grizzel B Central Tank Battery. If you have any questions, please direct them to Natalie Gladden via phone at (575)390-6397 or via email at ngladden@hungry-horse.com.

Sincerely,

Kathy Rivera
Project Manager
Hungry Horse, LLC
4024 Lovington Highway
Lovington, NM 88260
Cell: (575) 441-4374
Email: krivera@hungry-horse.com

Attachments:

- Initial C-141
- Groundwater Data
- Karst Map
- Site Map
- Site Photographs
- Final 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 Vanguard Operating, LLC	OGRID 258350
Contact Name Brent White	Contact Telephone 505-918-0669
Contact email bwhite@vnrenergy.com	Incident # *(assigned by OCD)*
Contact mailing address 4001 Penbrook Suite 201 Odessa, TX 79762	

Location of Release Source

Latitude 32.408274 Longitude -103.180339
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Grizzell B Battery	Site Type Well Site
Date Release Discovered 12-14-2018	API# *30-025-36228*

Unit Letter	Section	Township	Range	County
H	08	22S	37E	Lea

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)

☒ Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0
Produced Water	Volume Released (bbls) 19	Volume Recovered (bbls) 20
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	X Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

High winds broke the power line to the battery causing the transfer pumps to fail. The tanks filled and overran into a lined containment. A vacuum truck removed the standing fluid and the line was repaired. A 35'X 50' area inside of the containment was impacted.

White Buffalo Environmental will remove the 2 inches of gravel/soil on top of the liner to inspect and power wash.

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	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01353 POD1		CP	LE	3	1	3	09	22S	37E	671514	3586640	561	93	73	20
CP 00560 POD1		CP	LE	2	1	1	09	22S	37E	671778	3587646*	745	350		
CP 00871		CP	LE			3	09	22S	37E	671902	3586541*	886	167	94	73
CP 00154 POD2		CP	LE	3	3	3	09	22S	37E	671600	3586239*	961	172		

Average Depth to Water: **83 feet**
Minimum Depth: **73 feet**
Maximum Depth: **94 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 671239.93 **Northing (Y):** 3587130.6 **Radius:** 1000

***UTM location was derived from PLSS - see Help**

4/13/20 2:40 PM

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	Twn	Rng	X	Y
	CP 00255 POD2	2	2	3	04	22S	37E	672166	3588458*

Driller License:	208	**Driller Company:**	VAN NOY, W.L.		
Driller Name:	VAN NOY, W.L.				
Drill Start Date:	01/13/1975	**Drill Finish Date:**	01/27/1975	**Plug Date:**	
Log File Date:	02/05/1975	**PCW Rcv Date:**	02/17/1975	**Source:**	Shallow
Pump Type:	SUBMER	**Pipe Discharge Size:**		**Estimated Yield:**	20 GPM
Casing Size:	8.00	**Depth Well:**	157 feet	**Depth Water:**	120 feet

Water Bearing Stratifications:	Top	Bottom	Description
	130	150	Other/Unknown

Casing Perforations:	Top	Bottom
	92	152

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00871			3	09	22S	37E	671902	3586541*

Driller License:	1044	**Driller Company:**	EADES WELL DRILLING & PUMP SERVICE		
Driller Name:	EADES, ALAN				
Drill Start Date:	09/29/1997	**Drill Finish Date:**	09/29/1997	**Plug Date:**	
Log File Date:	11/04/1997	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:	5.75	**Depth Well:**	167 feet	**Depth Water:**	94 feet

Water Bearing Stratifications:	Top	Bottom	Description
	124	145	Sandstone/Gravel/Conglomerate
	145	164	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	147	167

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Point of Diversion Summary

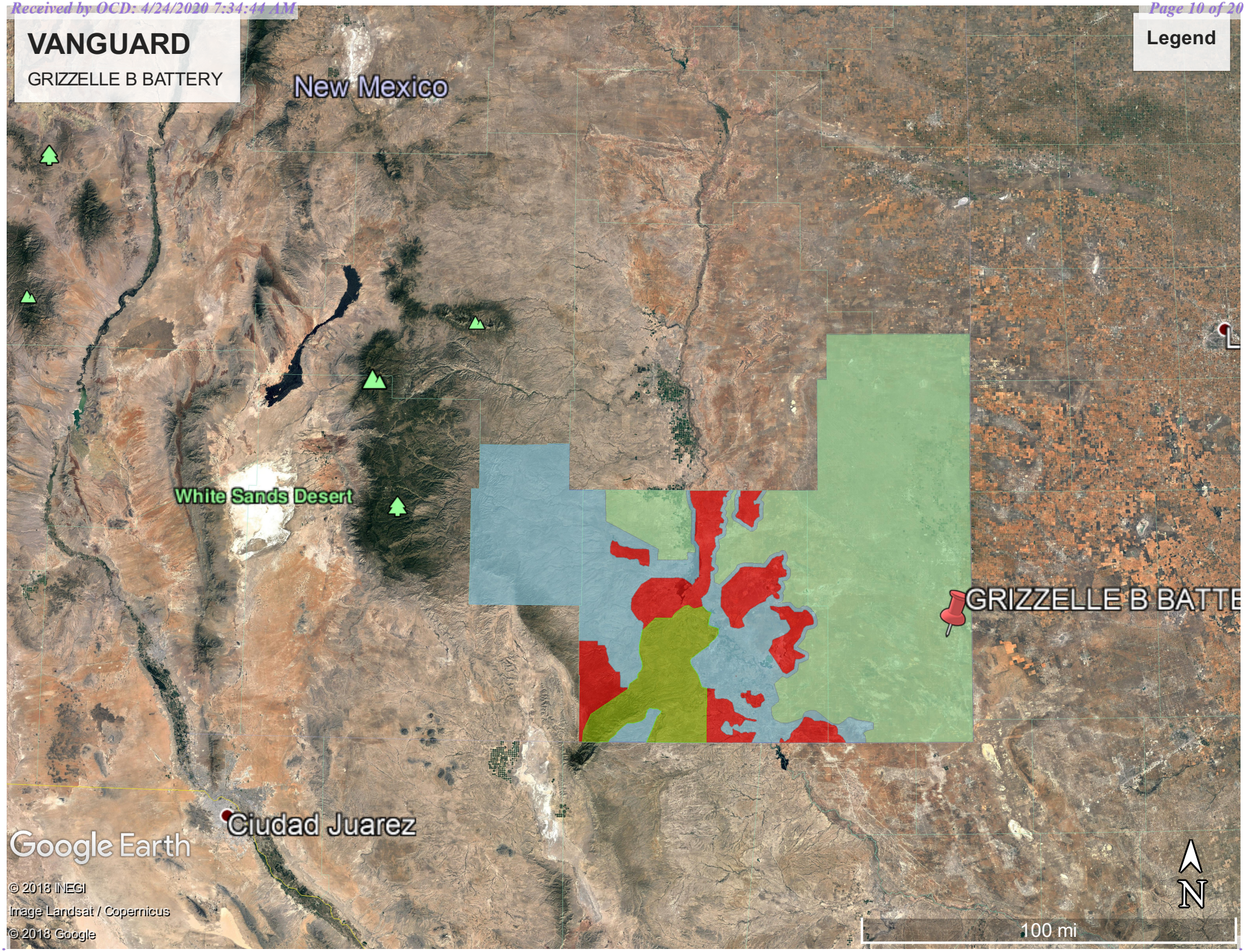
(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 01353 POD1	3	1	3	09	22S	37E	671514	3586640

Driller License:	1292	**Driller Company:**	BENTLE WATER WELL SERVICE		
Driller Name:	BENTLE, BILLY L.				
Drill Start Date:	05/04/2015	**Drill Finish Date:**	05/18/2015	**Plug Date:**	
Log File Date:	05/28/2015	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	9 GPM
Casing Size:	6.00	**Depth Well:**	93 feet	**Depth Water:**	73 feet

Water Bearing Stratifications:	Top	Bottom	Description
	83	93	Other/Unknown

Casing Perforations:	Top	Bottom
	73	93


VANGUARD
GRIZZELLE B BATTERY
Legend
New Mexico
White Sands Desert
GRIZZELLE B BATTE
Ciudad Juarez
Google Earth
© 2018 INEGI
Image Landsat / Copernicus
© 2018 Google
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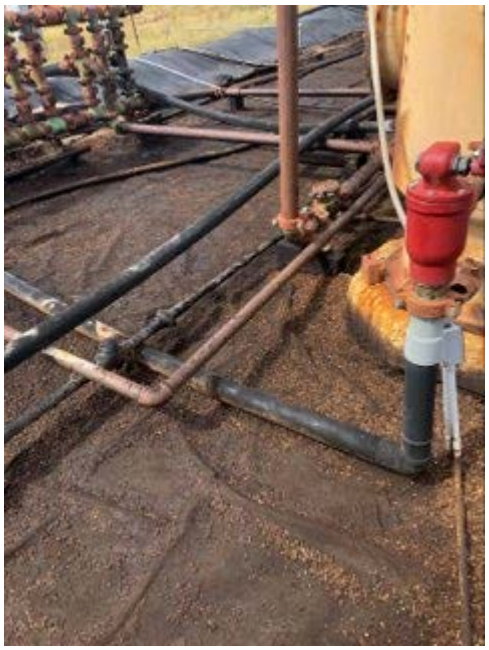
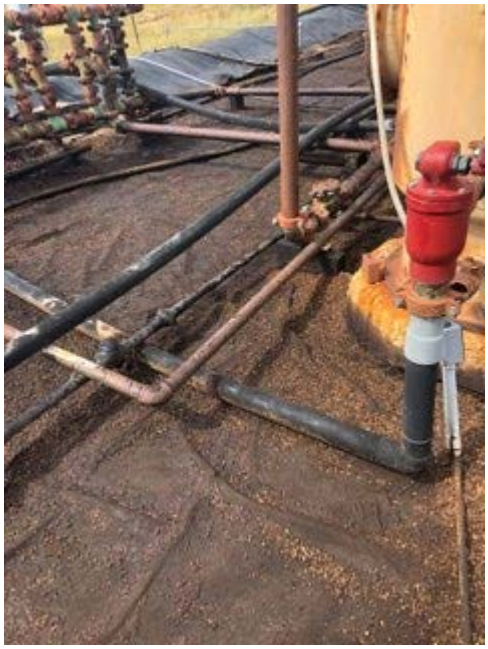
Grizzly Energy

Grizzell B Central Tank Batter

GRIZZEL B BATTERY
BEFORE & DURING PHOTOS – RELEASE DATE 12/14/2018





GRIZZLE B BATTERY REMEDIATION
AFTER PHOTOS – RELEASE DATE 12/14/2018

Form C-141 State New Mexico
Page 3 Oil Conservation Division

In nt ID	
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?	73 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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.

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In nt ID	
District RP	
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: Natalie Gladden Title: Director of Environmental & Regulatory

Signature: Natalie Gladden Date: 4/23/20

email: _ngladden@hungry-horse.com_ Telephone: 575-390-6397

OCD Only

Received by: Date:

Form C-141 State New Mexico
Page 6 Oil Conservation Division

In nt ID	
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: Natalie Gladden Title: Director of Environmental and Regulatory

Signature: Natalie Gladden Date: 4/23/20

email: ngladden@hungry-horse.com Telephone: 575-390-6397

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: _____