

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Gabriel Wade, Acting Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 1/11/19

Well information:

Hilcorp, Ludwick LS #18M, API# 30-045-29563

Application Type:

☐ P&A ☐ Drilling/Casing Change ☐ Location Change

☒ **Recomplete/DHC** (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)

☐ **Other:**

Conditions of Approval:

- Notify the OCD 24hrs prior to beginning operations.
- The initial CIBP must be placed no higher than 50' above the existing perforations.
- A Mechanical integrity test (MIT) must be performed from the initial CIBP to verify the integrity of the well. The pressure test must meet the requirements of 19.15.25.14 NMAC.
 - 24hr notice is required to be provided to the agencies prior to performing the MIT.
- After the MIT is performed a second temporary isolating device may be set up near the requested recomplete interval without additional OCD approval to protect the casing from the completion pressures.
- From the initial CIBP perform and submit a cement bond log (CBL) to the agencies for review and approval prior to perforating the formation.
- If needed, submit a proposed remediation plan to the agencies for review and approval prior to starting remediation.

NMOCD Approved by Signature

2/21/19
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JAN 28 2019

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

5. Lease Serial No. **NMSF078194**

6. Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Hilcorp Energy Company

3a. Address

382 Road 3100, Aztec, NM 87410

3b. Phone No. (include area code)

505-599-3400

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

Ludwick LS 18M

9. API Well No.

30-045-29563

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface Unit F (SENW) 1450' FNL & 1505' FWL, Sec. 06, T29N, R10W

10. Field and Pool or Exploratory Area

Aztec Pictured Cliffs/Blanco MV/Basin DK

11. Country or Parish, State

San Juan, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof.

If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Hilcorp Energy Company plans to recomple the subject well in the Pictured Cliffs formation and downhole commingle with the existing Mesaverde and Dakota formations. Attached is the Pictured Cliffs C-102, recomple procedure & wellbore schematic. The DHC application will be submitted and approved prior to commingling. A closed loop system will be utilized. Interim reclamation will be performed after surface disturbing activities.

NMOCD

FEB 01 2019

DISTRICT III

HOLD C104 FOR DHC

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Cherylene Weston

Title **Operations/Regulatory Technician - Sr.**

Signature

Cherylene Weston

Date

1-21-19

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

PE

Date

1/31/19

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

HEO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

Ludwick LS 18M

Section 6-T29N-R10W

API#: 30-045-29563

PC Recompletion Procedure

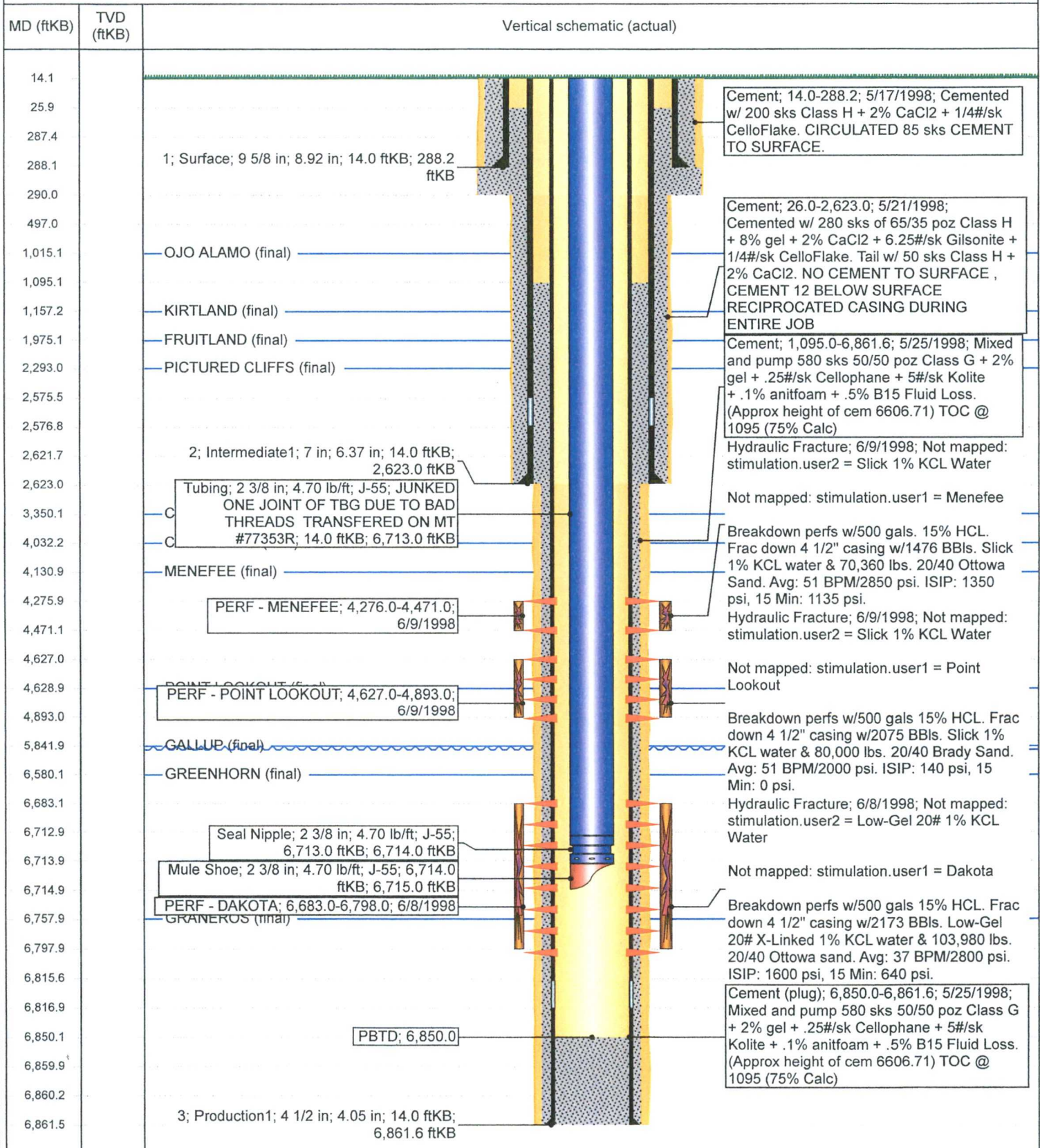
1/16/2019

Procedure:

1. MIRU Service rig and associated equipment, test BOP.
2. TOOH w/ 2 3/8" tubing set at 6715'.
3. Set bridge plug at approximately 2460' to isolate existing perforations.
4. ND BOP, NU frac stack and test frac stack to frac pressure.
5. Perforate and frac the Pictured Cliffs. Estimated interval: 2293'-2360'.
6. Cleanout to isolation plug. Flow test PC.
7. Cleanout to PBTD.
8. TIH and land production tubing. Get a commingled flow rate.
9. Release service rig and turn well over to production.

Well Name: LUDWICK LS 018M

API / UWI 3004529563	Surface Legal Location 006-029N-010W-F	Field Name MV/DK COM	Route 0702	State/Province NEW MEXICO	Well Configuration Type Vertical
Ground Elevation (ft) 5,933.00	Original KB/RT Elevation (ft) 5,947.00	KB-Ground Distance (ft) 14.00	KB-Casing Flange Distance (ft) 14.00	KB-Tubing Hanger Distance (ft) 14.00	

Vertical, Original Hole, 1/21/2019 9:12:03 AM


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

Form C-102
August 1, 2011

Permit 262487

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-045-29563	2. Pool Code 71280	3. Pool Name AZTEC PICTURED CLIFFS (GAS)
4. Property Code 318862	5. Property Name LUDWICK LS	6. Well No. 018M
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 5933

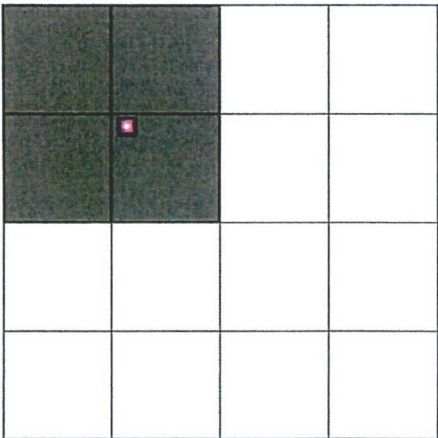
10. Surface Location

UL - Lot F	Section 6	Township 29N	Range 10W	Lot Idn	Feet From 1450	N/S Line N	Feet From 1505	E/W Line W	County SAN JUAN
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11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 141.14 NW/4	13. Joint or Infill	14. Consolidation Code	15. Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p style="text-align: center;">OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: <i>Cherylene Weston</i> Title: Cherylene Weston, Operations/Regulatory Tech-Sr. Date: 01/17/2019</p> <p style="text-align: center;">SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: NEALE C. EDWARDS Date of Survey: 2/13/1998 Certificate Number: 6857</p>
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