

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

Adrienne Sandoval, Division 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: 2/6/2020

Well information:

30-039-20339 CREEK #001

HILCORP ENERGY COMPANY

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 NMOCD 24hrs prior to beginning operations.

In addition to the BLM approved plugs ensure the following are covered:

- 4035'-3230' to cover the Chacra and Pictured Cliffs tops. OCD Chacra pick @ 4060'; P.C. pick @ 3280.
- 2970'-2320' to cover the Fruitland, Kirtland and Ojo Alamo tops. OCD Fruitland pick @ 2920'; Ojo Alamo pick @ 2370'.

NMOCD Approved by Signature

3/25/20

Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.*5. Lease Serial No.
NMNM0558139

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator
HILCORP ENERGY COMPANYContact: TAMMY JONES
E-Mail: tajones@hilcorp.com3a. Address
1111 TRAVIS STREET
HOUSTON, TX 770023b. Phone No. (include area code)
Ph: 505.324.51858. Well Name and No.
CREEK 19. API Well No.
30-039-20339-00-S110. Field and Pool or Exploratory Area
BLANCO MESAVERDE

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

Sec 4 T29N R5W SWNE 1950FNL 1490FEL
36.756454 N Lat, 107.358170 W Lon

11. County or Parish, State

RIO ARRIBA COUNTY, NM

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"/> Hydraulic Fracturing	<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 type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" 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 recompleting 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 recompletion 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 requests approval to plug and abandon the wellbore if the MIT fails on proposed TA procedure. A closed loop system will be used. Attached is the current wellbore schematic, proposed TA schematic, proposed P&A schematic, procedures & reclamation plan - (Preonsite inspection conducted on 1/31/20 with Bob Switzer, BLM and Bryan Hall, HEC).

NMOC

FEB 20 2020

DISTRICT III

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #502219 verified by the BLM Well Information System
For HILCORP ENERGY COMPANY, sent to the Farmington
Committed to AFMSS for processing by ALBERTA WETHINGTON on 02/07/2020 (20AMW0165SE)

Name (Printed/Typed) TAMMY JONES

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 02/06/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JOE KILLINS

Title ENGINEER

Date 02/21/2020

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 Farmington

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****



HILCORP ENERGY COMPANY

Creek 1
P&A NOI

JOB PROCEDURES

1. Hold pre-job safety meeting. Verify cathodic is off. Comply with all NMOCD, BLM, and HEC safety and environmental regulations.
2. Check casing, tubing, and bradenhead pressures and record them in WellView. If there is pressure on the BH, contact Operations Engineer.
NOTE: Petro Wireline CBL run May 22, 1998 showed TOC @ 3,558' in 5-1/2" casing and TOC @ 2,802' in 7-5/8" casing (at top of log run). New CBL will have been run during MIT/TA program to confirm TOC behind 7-5/8" casing. Plan to run new CBL from top of liner to surface. Procedure for plugs assumes MIT passed and a TOC behind 7-5/8" casing is at 879' based on 75% efficiency calculation during primary cement job pumped 9/23/1970. This puts the Nacimiento formation top below TOC. Cement volumes, plug length and pumping procedures will be adjusted pending results of new CBL.
3. MIRU service rig and associated equipment; NU and test BOP.
4. TIH w/ tubing/work string to **+/- 4,035' (top of CIBP).**
5. **Plug #1: CHACRA/LEWIS PERFORATIONS; HEURFANITO BENTONITE, LEWIS AND PICTURED CLIFFS FORMATION TOPS; COVERING 5-1/2" LINER LAP (3,230' to 4,035', 130 Sacks of Class G Cement):**
Pump a **+/- 805'** balanced cement plug (130 sacks of Class G cement with an estimated **TOC @ +/- 3,230'** and an estimated **BOC @ +/- 4,035'**).
Includes 50' of excess cement.
NOTE this balanced cement plug will be pumped from the CIBP in the 5-1/2" casing, across the liner top at 3,438' and up into the 7-5/8" annulus to cover the top of the Lewis and Pictured Cliffs formation tops.
6. TOOH w/ tubing/work string to **+/- 2,931'.**
7. **Plug #2: FRUITLAND, KIRTLAND AND OJO ALAMO FORMATION TOPS (2,457' to 2,931', 121 Sacks of Class G Cement):**
Pump a **+/- 474'** balanced cement plug (121 sacks of Class G cement with an estimated **TOC @ +/- 2,457'** and an estimated **BOC @ +/- 2,931'**).
Includes 50' of excess cement.
8. TOOH w/ tubing/work string to **+/- 1,202'.**
9. **Plug #3: NACIMIENTO FORMATION TOP (1,202' to 1,302', 35 Sacks of Class G Cement):**
Pump a **+/- 100'** balanced cement plug (35 sacks of Class G cement with an estimated **TOC @ +/- 1,202'** and an estimated **BOC @ +/- 1,302'**). **Includes 50' of excess cement.**
10. TOOH w/ tubing/work string. RU EL, RIH perforate squeeze holes @ **+/-366'**. POOH, RD EL. Establish injection rate into squeeze holes.
11. **Plug #4: SURFACE PLUG (0' to 366', 206 Sacks of Class G Cement):**
Pump **+/-50'** cement squeeze in the **7-5/8" x 15" OH** (below surface shoe), **+/- 316'** cement squeeze in the **7-5/8" x 10-3/4" annulus** and **+/- 366'** balanced cement plug in the **7-5/8" annulus to surface** (206 sacks of Class G cement with an estimated **TOC @ +/- 0'** and an estimated **BOC @ +/- 366'**). **Ensure good returns to surface. Includes 50' of excess cement in OH section below surface shoe.**
12. ND BOP, cut off casing below casing flange. Top off cement in surface casing annulus, if needed. Install a P&A marker with cement to comply with regulations. Rig down, move off location, cut off anchors, and restore location.



HILCORP ENERGY COMPANY
Creek 1
P&A NOI

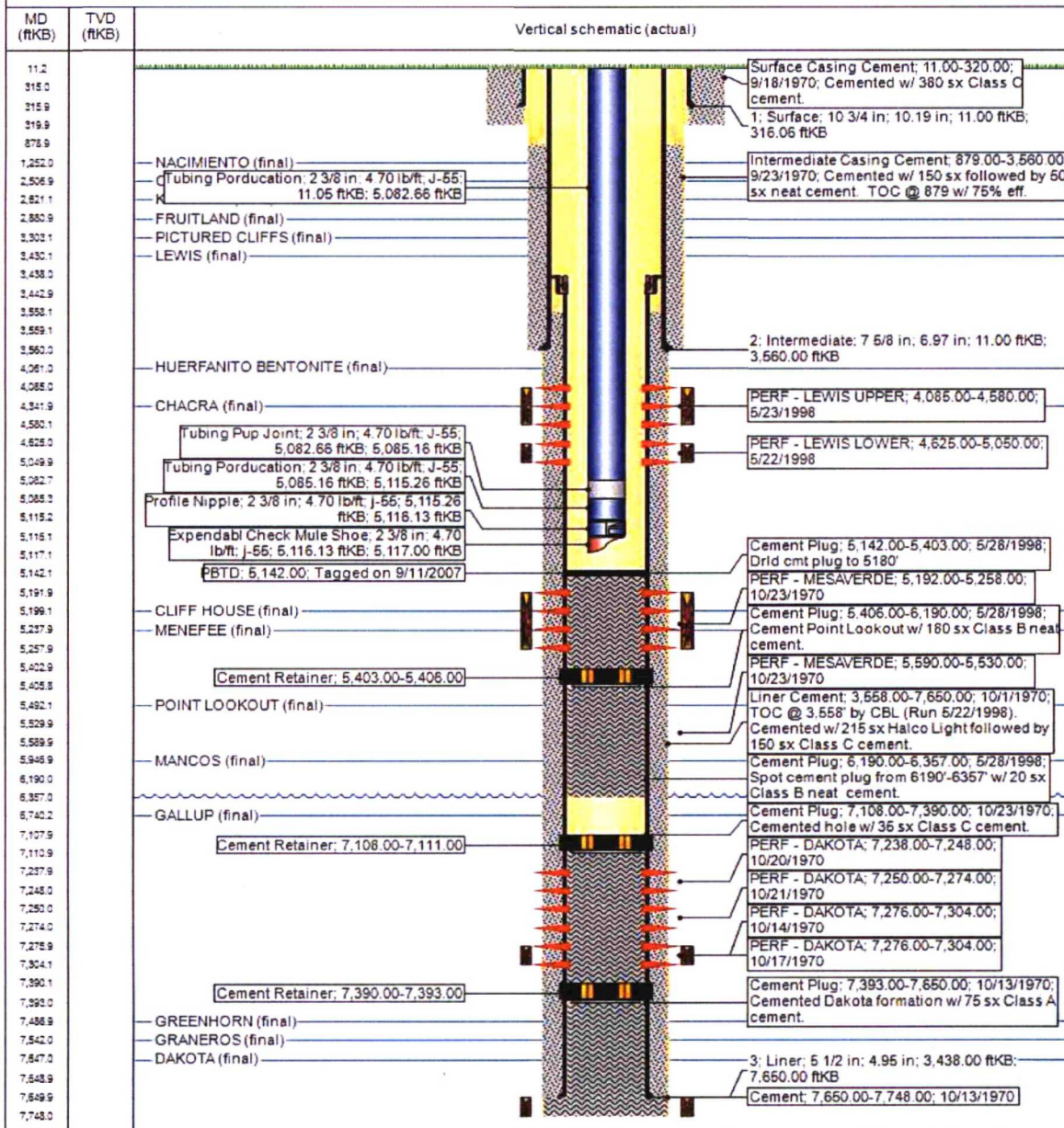
Creek 1 - CURRENT WELLBORE SCHEMATIC



Well Name: CREEK #1

API / UWI	Surface Legal Location	Field Name	Route	State/Province	Well Configuration Type
3003920339	004-029N-005W-G	BLANCO MESAVERDE (PRORAT #0078)	1208	NEW MEXICO	
Ground Elevation (ft)	Original KB/T Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)	
6,343.00	6,364.00	11.00			

Original Hole, 1/27/2020 9:02:46 AM





HILCORP ENERGY COMPANY

Creek 1
P&A NOI

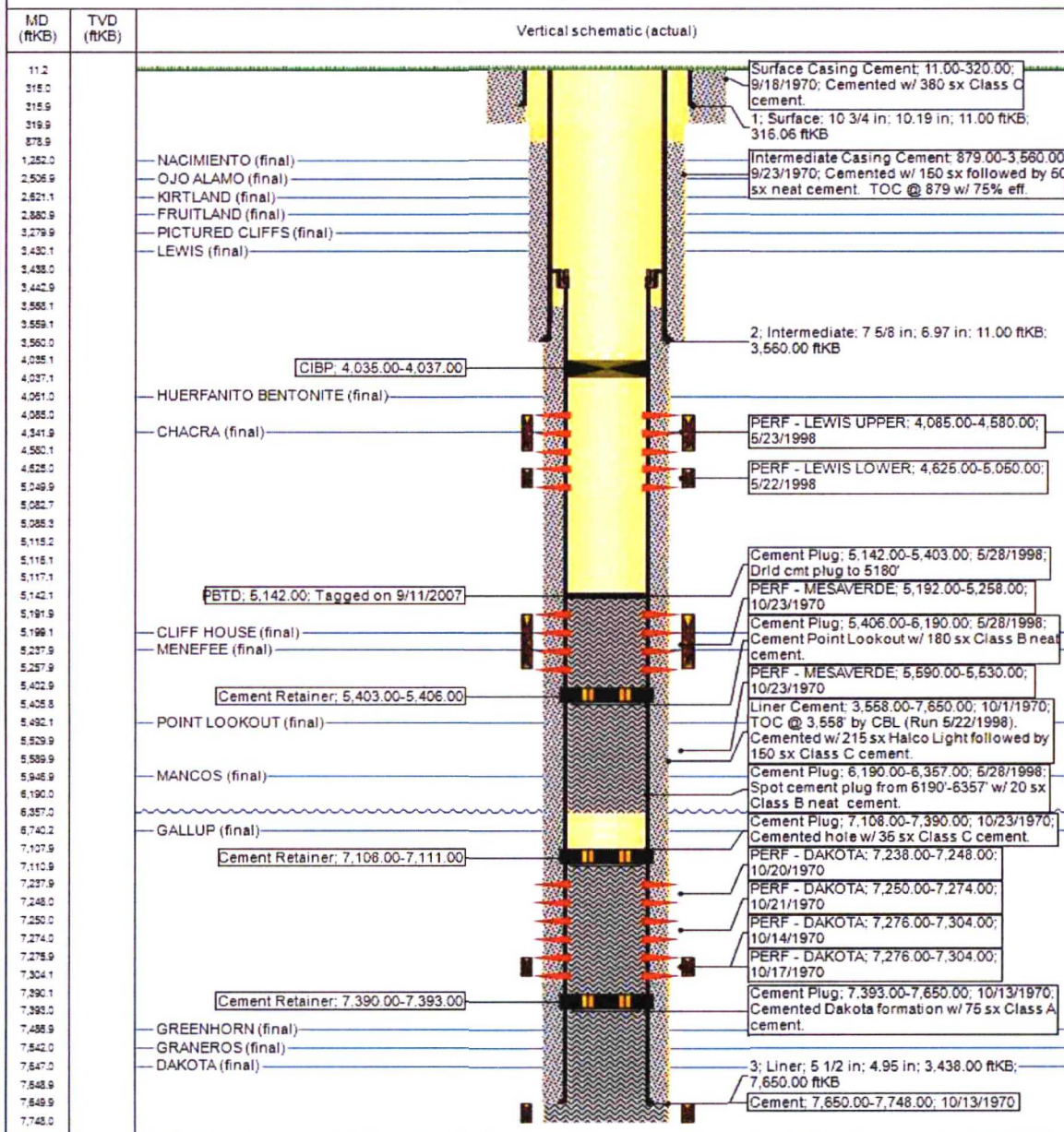
Creek 1 - PROPOSED TA WELLBORE SCHEMATIC



Well Name: CREEK #1

API / UWI 3003920339	Surface Legal Location 004-029N-005W-G	Field Name BLANCO MESAVERDE (PRORAT #0078)	Route 1208	State/Province NEW MEXICO	Well Configuration Type
Ground Elevation (ft) 6,343.00	Original KB RT Elevation (ft) 6,354.00	KB-Ground Distance (ft) 11.00	KB-Casing Flange Distance (ft)	KB-Tubing Flange Distance (ft)	

Original Hole, 5/1/2020



**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402**

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: Creek 1

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
3. The well is within the Rosa Mesa SDA and is seasonally restricted starting in December and ending in April. Do not proceed with plugging operations within the restricted season without approval of a wildlife stipulation exception. (form attached with NOI approval)
4. Submit electronic copy of the CBL for verification to the following addresses: jkillins@blm.gov , jhoffman@blm.gov and Brandon.Powell@state.nm.us . Based on CBL results inside/outside plugs and volumes will be adjusted accordingly. Please review the General Requirements document to ensure volumes meet required excess inside and outside casing.
 - a. BLM tops are based on the attached geologic report. Plugs will be adjusted based on cement coverage indicated by the CBL. Do not proceed with any plugging operations prior to reviewing CBL results with BLM.

BLM FLUID MINERALS Geologic Report

Date Completed: 2/14/20

Well No.	Creek # 1	Location	1950'	FNL &	1490'	FEL
Lease No.	NMNM0558139	Sec. 4	T29N			R5W
Operator	Hilcorp	County	Rio Arriba	State		New Mexico
Total Depth	7748'	PBTD 5142'	Formation	Blanco Mesa Verde		
Elevation (GL)	6343'		Elevation (KB)	6355' (est.)		

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm			Surface	1220'	Surface/Fresh water sands
Nacimiento Fm			1220'	2120'	Fresh water sands
Ojo Alamo Ss			2120'	2550'	Aquifer (fresh water)
Kirtland Shale			2550'	2950'	
Fruitland Fm			2950'	3155'	Coal/Gas/Possible water
Pictured Cliffs Ss			3155'	3400'	Gas
Lewis Shale			3400'	PBTD	
Chacra			Below CIBP		Probable water or dry
La Ventana Tongue					Probable water or dry
Cliff House Ss					Water/Possible gas
Menefee Fm					Coal/Ss/Water/Possible O&G
Point Lookout Ss					Probable water/Possible O&G
Mancos Shale					Source rock
Gallup					O&G/Water
Dakota					O&G/Water

Remarks:

P & A

- Log analysis of reference well #2 (attached worksheet) indicates the San Jose, Nacimiento, and Ojo Alamo formations contain fresh water ($\leq 5,000$ ppm TDS).

- Please ensure that the tops of the Pictured Cliffs, Fruitland, and Nacimiento formations as well as the entire Ojo Alamo aquifer, identified in this report, are isolated by proper placement of cement plugs. This will protect the freshwater sands in this well bore.

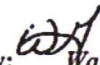
Reference Well:

1) Hilcorp
Creek # 2
2010 FNL, 1120' FEL
Sec 4, T29N, R5W
GL 6343', KB 6355'

Fm. Tops

2) Phillips Pet.
SJ 29-5 Unit # 17
1040' FNL, 1180FEL
Sec 5, 29N, 5W
GL 6429'

Water
Analysis

Prepared by:  Walter Gage

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

- 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
- 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
- 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
- 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. **If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.**

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

- 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
- 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H₂S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

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