

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

OCD-ARTESIA

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.

NM-124659

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Burton 6 Federal No. 1

9. API Well No.

30-015- **38226**

10. Field and Pool, or Exploratory Area

Parkway; Bone Spring, S

11. County or Parish, State

Eddy, NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Cimarex Energy Co. of Colorado

3a. Address

600 N. Marienfeld St., Ste. 600; Midland, TX 79701

3b. Phone No. (include area code)

432-571-7800

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

SHL 150 FNL & 660 FWL 6-20S-30E
BHL 330 FSL & 660 FWL

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

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

☐ Acidize

☒ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☒ Other BOP change to

accomadate casing change

see attached BOP diagram

13. Describe Proposed or Completed Operation (clearly state all pertinent details, included estimated starting date of any proposed work and approximate duration thereof.

If the proposal is to deepen directionally or recompleate 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Cimarex proposes to change it's casing design for the Burton 6 Federal No. 1 as shown below:

From:

Surface 1- 26" hole 20" 94# J/K 55 set at 0-320'

Surface 2- 17 1/2" hole 13 3/8" 61# J55 set at 0-1600'

Intermed- 12 1/4" hole 9 5/8" 40# J/K55 at 3500

Production- 8 3/4" hole 7" 26# P-110 at 0-7965'

Production- 8 3/4" hole 2 7/8" 2.18# IJ at 7965-8550'

Lateral 1&2-6 1/4" hole 4 1/2" 11.6# PEAK liner 7865'-12972'

To:

18 3/4" hole 16" 65# H40 BT&C at 0-320'

14 3/4" hole 11 3/4" 47# J/K55 ST&C at 0-1600'

10 5/8" hole 8 5/8" 24# J/K55 ST&C at 0-3500'

7 1/8" hole 5 1/2" 17# P-110 LT&C through curve at 0-12972'

7 1/8" hole log cement kickoff plug 250sx HalcemH 7950'-8550'

7 7/8" hole through curve as shown above.

Cement on surface 1,2 & intrmediate as shown on attached drilling prognosis. 250 sx Halcem H kickoff plug in pilot hole from 7950'-8550'. 5 1/2" production casing cemented minimum 50' above Capitan Reef at approximately 1500'

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

Zeno Farris

Signature

Zeno Farris

Title

Manager Operations Administration

Date

October 29, 2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

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.

Title 18 U.S.C. Section 1001, makes 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 reverse)

RECEIVED

NOV 04 2010

NMOCD ARTESIA

APPROVED

OCT 29 2010

BLM/Chris Walls
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

SR & A

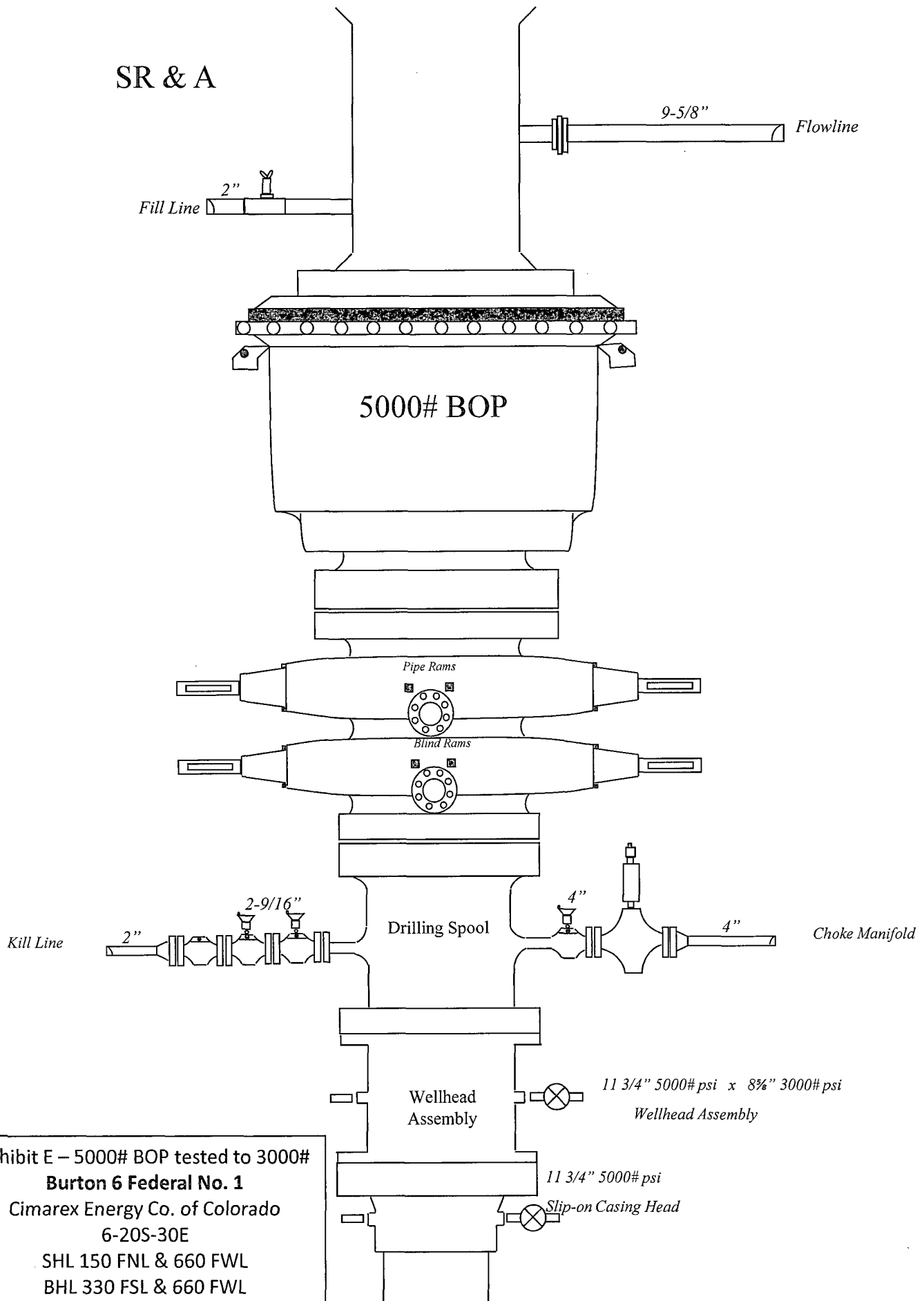


Exhibit E – 5000# BOP tested to 3000#
Burton 6 Federal No. 1
Cimarex Energy Co. of Colorado
6-20S-30E
SHL 150 FNL & 660 FWL
BHL 330 FSL & 660 FWL
Eddy County, NM

Drilling Operations Choke Manifold 5M Service (tested to 3M)

Exhibit E-1 – Choke Manifold Diagram

Burton 6 Federal No. 1

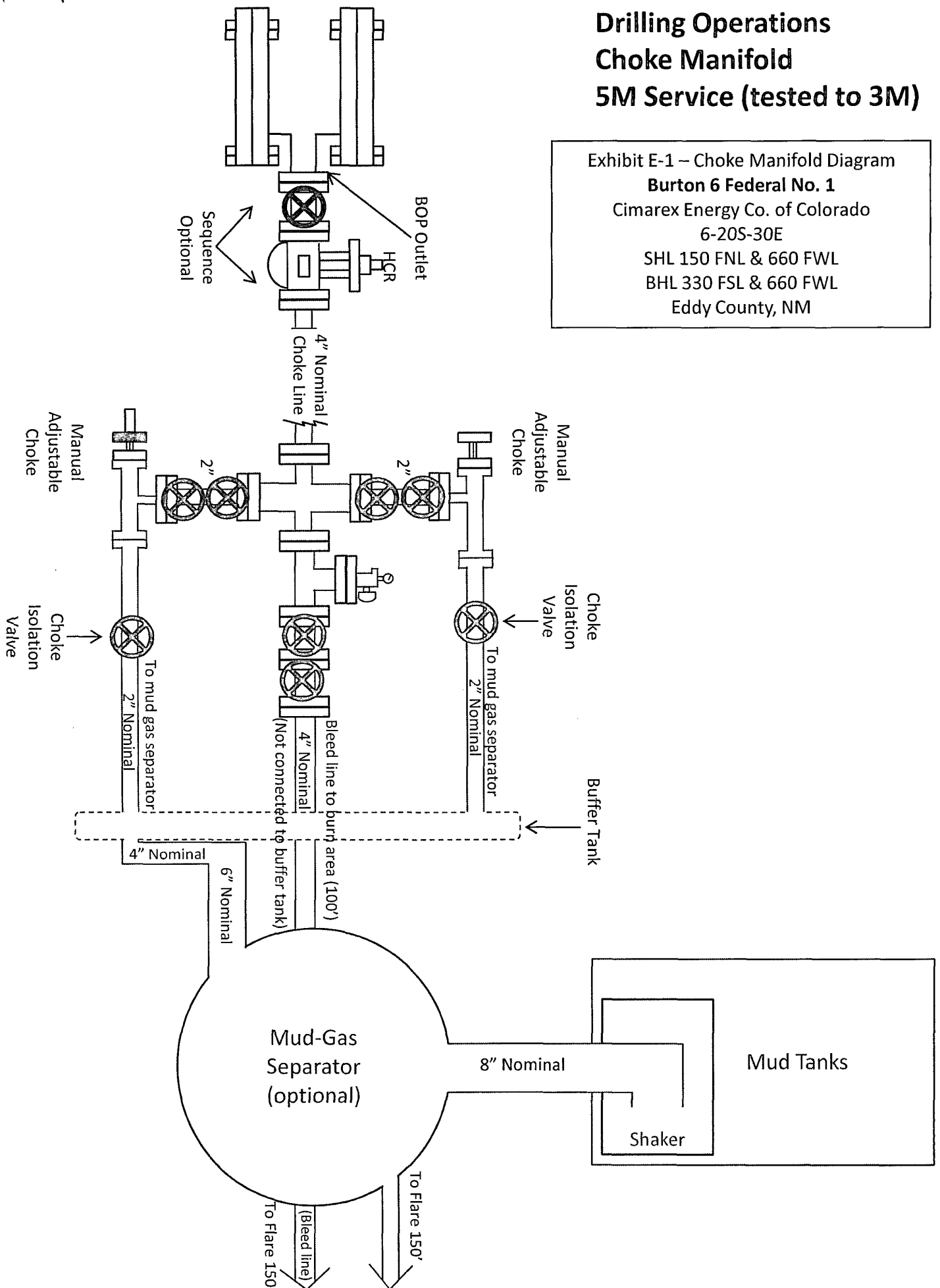
Cimarex Energy Co. of Colorado

6-20S-30E

SHL 150 FNL & 660 FWL

BHL 330 FSL & 660 FWL

Eddy County, NM





DRILLING PROGNOSIS Cimarex Energy Company

10/29/2010

Well: **Burton 6 Federal #1H**
Location: Sec 6, T20S-R30E
County, State: **Eddy County, NM**
Surface Location: 375 FNL, 660 FWL
Bottomhole Loc: 330 FSL 660 FWL
E-Mail: wellsite10@cimarex.com
Wellhead: SEC A: 11" 5M x 9-5/8" SOW
SEC B: 11" 5M X 7-1/16" 10M

Lse Serial #:
Field: **Burton**
Objective: **Second Bone Spring**
TVD/MD: 8550 / 12972
Cementing: **Halliburton**
Mud: **MISwaco**
Motors: **Baker**
OH Logs: **Halibuton**
Rig: **Key 884**
Offset Wells:

Xmas Tree
Tubing: 2 7/8" L80 EUE
Superintendent: **Dee Smith**
Engineer: **Art Metcalfe**

Hole Size	Formation Tops	Other	Logs	Bit IADC	Cement	Mud Weight
18 1/2"	20" Conductor @ ±60'				Spacer: 20 bbl FW, Lead: 95SKS Halcem C + 4% Bentonite + 2% CaCl 13.5ppg 1.75/yield 100% Excess, Tail: 150SKS Halcem C + 2% CaCl 14.2ppg 1.34 yield, Circulate Cmnt to Surface	8.4 - 8.6 PPG fresh water spud mud
14 3/4"	16", 65.0#, H40, BT&C @320'			TFA 0.5	Spacer: 20 bbls FW, Lead: 455SKS EconoCem + 5% salt + 5 lbm glisonite 12.9ppg 1.85/yield 100% % Excess, Tail: 175SKS HalCem + 1% CaCl 14.8ppg 1.34 yield, Circulate Cmnt to Surface	Drill with 10.0 ppg brine water to eliminate leeching of salt sections.
10 5/8"	11 3/4", 47#, J/K55, ST&C @ ± 1600'		Logs and possible rotary cores	Vertical Section TFA 0.4 - 0.45 w/ 500GPM	Spacer: 20 bbls FW, Lead: 620SKS EconoCem - H + 0.2 % HR-601 2.44 12.9ppg 1.85/yield 150% % Excess, Tail: 210SKS Versacem - H + 0.5% Halad(R)-344 + 0.4% CFR-3 + 1 lbmsk salt + 0.1% HR- 601 14.8ppg 1.34 yield, Circulate Cmnt to Surface	8.4-9.0 ppg FW/Brine
	8 5/8" 32# J/K55 ST&C @ 3500'					
	Delaware @ 3500'					
	Bone Spring 6120					
	4th Bone Spring @ 7460'					

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Cimarex Energy of Colorado
LEASE NO.:	NMNM-124659
WELL NAME & NO.:	Burton 6 Federal 1
SURFACE HOLE FOOTAGE:	150' FNL & 660' FWL
LOCATION:	Section 6, T. 20 S., R 30 E., NMPM
COUNTY:	Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

4. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. **DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.** Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

High cave potential.

Secretary's Potash

Possible water flows in the Artesia and Salado Groups.

Possible lost circulation in the Capitan Reef.

1. The **16** inch surface casing shall be set at approximately **320** feet (a minimum of 25 above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **11-3/4** inch intermediate casing is:
- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.
3. The minimum required fill of cement behind the **8-5/8** inch 2nd intermediate casing is:
- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to the Capitan Reef.

The kick off plug plugging procedure is approved as written. Note plug top on drilling report.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
- ☒ Top of cement to reach at least 50 feet above the top of the Capitan Reef at approximately 1500', operator must verify top of cement.
5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. **A variance will be granted for the use of a diverter on the 16" surface casing.**
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) psi. Operator installing a 5M but testing as a 3M.**

- a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) prior to initiating the test.
 - c. The results of the test shall be reported to the appropriate BLM office.
 - d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
 - e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

CRW 102910