

UNITED STATES **OCD-ARTESIA**
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

HOBBS OCD

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

MAR 29 2012

SUBMIT IN TRIPLICATE - Other instructions on page 2.

RECEIVED

1. Type of Well

☒ Oil Well

☐ Gas Well

☐ Other

2. Name of Operator

Mack Energy Corporation

3a. Address

P.O. Box 960 Artesia, NM 88210-0960

3b. Phone No. (include area code)

(575) 748-1288

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

SHL 750 FNL & 1120 FEL, BHL 990 FNL & 990 FEL Sec. 30 T17S R32E

5. Lease Serial No

NMLC-060199B

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No

Brook Federal #4

9. API Well No.

30-025-40339

10. Field and Pool or Exploratory Area

Baish Wolfcamp/Maljamar Abo

11. Country or Parish, State

Eddy, NM

12. CHECK THE 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

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 recompleat 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 recompleat 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.)

Mack Energy is proposing to change the TD and casing strings as follows:

Surface Casing: Drill 17 1/2" hole to 740', run 13 3/8" 48# H-40 casing and cement Lead w/500sx Class C, 13.5 ppg, 1.75 yield. Tail w/200sx Class C, 14.8 ppg, 1.34 yield. Safety Factors C/B/T 2.117/3.362/3.46.

Intermediate Casing: Drill 12 1/4" hole to 2100', run 9 5/8" 24# J-55 casing and cement Lead w/600sx Class C 13.5 ppg, 1.75 yield. Tail w/200sx 14.8 ppg, 1.34 yield. Safety Factors C/B/T 1.218/6.313/5.9

Production Casing: Drill 7 7/8 hole to 10,400', run 5 1/2 17# P-110 casing and cement Lead w/625sx Poz C, 12.8 ppg, 1.95 yield. Tail 830sx PVL, 13.0 ppg, yield 1.47. Safety Factors-C/B/T 1.383/3.546/3.546.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Accepted for record
NMOCD

RECEIVED

FEB 16 2012

NMOCD ARTESIA

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

Jerry W. Sherrell

Title Production Clerk

Signature

Jerry W. Sherrell

Date 1/31/12

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

Date

FEB 14 2012

/s/ Chris Wells

BUREAU OF LAND MANAGEMENT

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 and Title 43 U.S.C. Section 1212, make it a crime for my 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)

Walls, Christopher

From: Jerry Sherrell <jerrys@mec.com>
Sent: Tuesday, February 14, 2012 10:58 AM
To: Walls, Christopher
Subject: FW: Brook Fed 4
Attachments: T-17-S R-32-E Sec30 Mack Energy Brook Federal #4 013012bw.pdf

Chris,

Please see the attached info for the sundry.

BOP/ BOPE Guidelines

Casing	Test Required	Rig Pump	Third Party	Test Pressure
13 3/8"	X		x	3000#
8 5/8"	x		x	3000#

The BOP/BOPE test shall include a low pressure test from 250 to 300psi. 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.

Surface and Intermediate casing will be ST&C. Production will be LT&C.

All cement jobs will be circulated to surface.

Production Hole mud weight - 9.2 ppg Per Jerry Sherrell 2/14/12 CRW

From: Walls, Christopher [<mailto:cwalls@blm.gov>]

Sent: Tuesday, February 14, 2012 9:01 AM

To: Jerry Sherrell

Subject: Brook Fed 4

Jerry,

Could you email me an attachment with The mud program, BOP and testing procedure (permit says you will test to 2000); Tops of cement for all strings, and the collar type for all strings for the above mentioned well.

Thank you,

Chris Walls
BLM Carlsbad Field Office
620 E. Greene
Carlsbad, NM 88220

MAR 29 2012

CONDITIONS OF APPROVAL

RECEIVED

OPERATOR'S NAME:	Mack Energy Corporation
LEASE NO.:	LC-060199B
WELL NAME & NO.:	Brook Federal #4
SURFACE HOLE FOOTAGE:	0750' FNL & 1120' FEL
BOTTOM HOLE FOOTAGE:	0990' FNL & 0990' FEL
LOCATION:	Section 30, T. 17 S., R. 32 E., NMPM
COUNTY:	Lea 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

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated 500 feet prior to drilling into the **Grayburg** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values 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. **The record of the drilling rate along with the GR/N well log run from TD to surface shall 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 program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

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.

Possible water and brine flows in the Salado and Artesia groups.

1. The 13-3/8 inch surface casing shall be set at approximately 740 feet (a minimum of 25 feet into the Rustler Anhydrite and 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 **8-5/8** inch intermediate casing is:
☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.
4. 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. 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.
 - 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.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, 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. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- 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) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- 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.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

CRW 021412