OCD Hobbs

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

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.

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SUBMIT IN TRIPLICATE - Other instructions on reverse side

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5. Lease Serial No.
NMNM0392082A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM125386A

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
RED HILLS WEST UNIT 006H

2. Name of Operator
MEWBOURNE OIL COMPANY

Contact: JACKIE LATHAN
E-Mail: jlathan@mewbourne.com

9. API Well No.
30-025-40605

3a. Address
PO BOX 5270
HOBBS, NM 88241

3b. Phone No. (include area code)
Ph: 575-393-5905
Fx: 575-397-6252

10. Field and Pool, or Exploratory
BONE SPRING

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 9 T26S R32E SESW 150FSL 1650FWL

11. County or Parish, and State
LEA COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 recompletion 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.)

Mewbourne Oil Company would like to make changes to the approved APD.

Please see attached changes.

If you have any questions please call Jake Nave or Mickey Young.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Bond on file: NM1693 nationwide & NMB000919

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #227729 verified by the BLM Well Information System
For MEWBOURNE OIL COMPANY, sent to the Hobbs

Name *(Printed/Typed)* JAKE NAVE — Title DRILLING ENGINEER

Signature (Electronic Submission) — Date 11/22/2013

APPROVED
DEC 23 2013
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

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. PVB GRW 12-23-13

Office

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

66052

DEC 31 2013

MEWBOURNE OIL COMPANY
701 S. CECIL
PO BOX 5270
HOBBS, NM 88240
(575) 393-5905
(575) 397-6252 FAX

Mewbourne Oil Company has an approved APD for the Red Hills West Unit #006H.

Mud & casing to remain as approved for 17 ½" & 12 ¼" hole.

Currently MOC is approved to drill 8 ¾" hole through the curve and run 7" casing. Then drill 6 ⅛" lateral section and run 4 ½" liner w/packer & port system.

MOC is requesting to change the following:
Drill 8 ¾" curve and lateral section.
KOP will remain the same.
Run 5 ½" 17# HCP110 LTC & BTC casing from surface to TD.

Interval	Type System	Weight	Viscosity	Fluid Loss
4400' - 8760' (KOP)	FW	8.5-8.7	28-30	15
8760' - TD	FW w/Polymer	8.5-8.7	32-35	15

Hole Size	Casing	Wt/Ft.	Grade	Depth	Jt Type
8 ¾"	5 ½" (new)	17#	P110	0-8760' MD	LT&C
8 ¾"	5 ½" (new)	17#	P110	8760'-9665' MD	BT&C
8 ¾"	5 ½" (new)	17#	P110	9665'-13952' MD	LT&C

Cement will consist of:
5 ½" Production Casing: Lead with 550 sacks class H light cement with fluid loss, LCM, & salt additives w/160 bbl fresh water. Yield at 2.73 cuft/sk. 2nd lead with 150 sacks class H with fluid loss & LCM additives w/55 bbl fresh water. Yield at 2.63 cuft/sk. Tail with 1150 sacks class H cmt w/145 bbl fresh water. Yield at 1.21 cuft/sk. Calculated to tie back inside 9 5/8" csg 200' w/25% excess.

Cased hole logs will be ran in 5 ½" casing during completion.

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Mewbourne Oil Co
LEASE NO.:	NM0392082A
WELL NAME & NO.:	Red Hills West Unit 6H
SURFACE HOLE FOOTAGE:	150' FSL & 1650' FWL
BOTTOM HOLE FOOTAGE	330' FNL & 1700' FWL
LOCATION:	Section 9, T.26 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico
API:	30-025-40605

The original COAs still stand with the following drilling modifications:

I. DRILLING

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A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ **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 **Delaware** 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. 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 is 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) 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. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. 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/brine flows in the Salado, Castile, Delaware and Bone Springs. Possible lost circulation in the Delaware and Bone Springs formation.

1. The **13-3/8** inch surface casing shall be set at **approximately 1060 feet (in a competent bed below the Magenta Dolomite Member of the Rustler, and if salt is encountered, set casing at least 25 feet 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 **9-5/8** inch intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Additional cement may be required – excess calculates to 19%.**

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

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 **2000 (2M)** 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** intermediate casing shoe shall be **3000 (3M)** psi.

4. 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 test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.

   d. The results of the test shall be reported to the appropriate BLM office.

   e. 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.**

   f. 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. This test shall be performed prior to the test at full stack pressure.

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.

JAM 122313

13 3/8 surface csg in a 17 1/2 inch hole. Design Factors SURFACE

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	48.00	H 40	ST&C	6.33	1.55	0.75	1,060	50,880
"B"							0	0

w/8.4#/g mud, 30min Sfc Csg Test psig: 748 Tail Cmt does not circ to sfc. Totals: 1,060 50,880

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	720	1386	785	77	9.00	1354	2M	1.56

Burst Frac Gradient(s) for Segment(s) A, B = 1.63, b All > 0.70, OK.

9 5/8 casing inside the 13 3/8 casing. Design Factors INTERMEDIATE

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	36.00	J 55	LT&C	2.80	1.18	0.84	3,240	116,640
"B"	40.00	J 55	LT&C	11.50	1.14	0.95	1,000	40,000
"C"	40.00	N 80	LT&C	141.73	1.33	1.38	160	6,400

The cement volume(s) are intended to achieve a top of 0 ft from surface or a 1060 overlap.

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	980	1713	1439	19	10.20	2116	3M	0.81

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 1.09, 0.93, c, d All > 0.70, OK.

5 1/2 casing inside the 9 5/8 Design Factors PRODUCTION

Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight
"A"	17.00	p 110	LT&C	2.80	1.91	2.55	8,760	148,920
"B"	17.00	p 110	BUTT	3.92	1.61	2.55	905	15,385

w/8.4#/g mud, 30min Sfc Csg Test psig: 1,927 Totals: 13,952 237,184

B Segment Design Factors would be: 56.04 1.79 if it were a vertical wellbore.

No Pilot Hole Planned

MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC
13952	9333	9333	8760	91	10	9700

The cement volume(s) are intended to achieve a top of 4200 ft from surface or a 200 overlap.

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	1850	3289	2472	33	8.60			1.35