Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUL 29 2009

OCD Artesia

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5 Lease Serial No.
NMLC029342B

6 If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.
POLARIS B FEDERAL 3

2. Name of Operator
MACK ENERGY CORPORATION
Contact: KANICIA CARRILLO
E-Mail: kcarrillo@conchoresources.com

9 API Well No.
30-015-31858-00-S1

3a Address
ARTESIA, NM 88211-0960

3b. Phone No (include area code)
Ph: 432-685-4332

10 Field and Pool, or Exploratory
LOCO HILLS

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 17 T17S R30E NENW 940FNL 2310FWL

11. County or Parish, and State
EDDY 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 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.)

COG Operating respectfully requests 180 days approval.

See attachment.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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

Electronic Submission #70798 verified by the BLM Well Information System
For MACK ENERGY CORPORATION, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 06/11/2009 (09KMS1571SE)

Name *(Printed/Typed)* KANICIA CARRILLO — Title PREPARER

Signature (Electronic Submission) — Date 06/10/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By WESLEY INGRAM — Title PETROLEUM ENGINEER — Date 07/25/2009

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 Carlsbad

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.

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

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	96718	

Property Code	Property Name	Well Number
	POLARIS B FEDERAL	3

OGRID No.	Operator Name	Elevation
		3672'

Surface Location

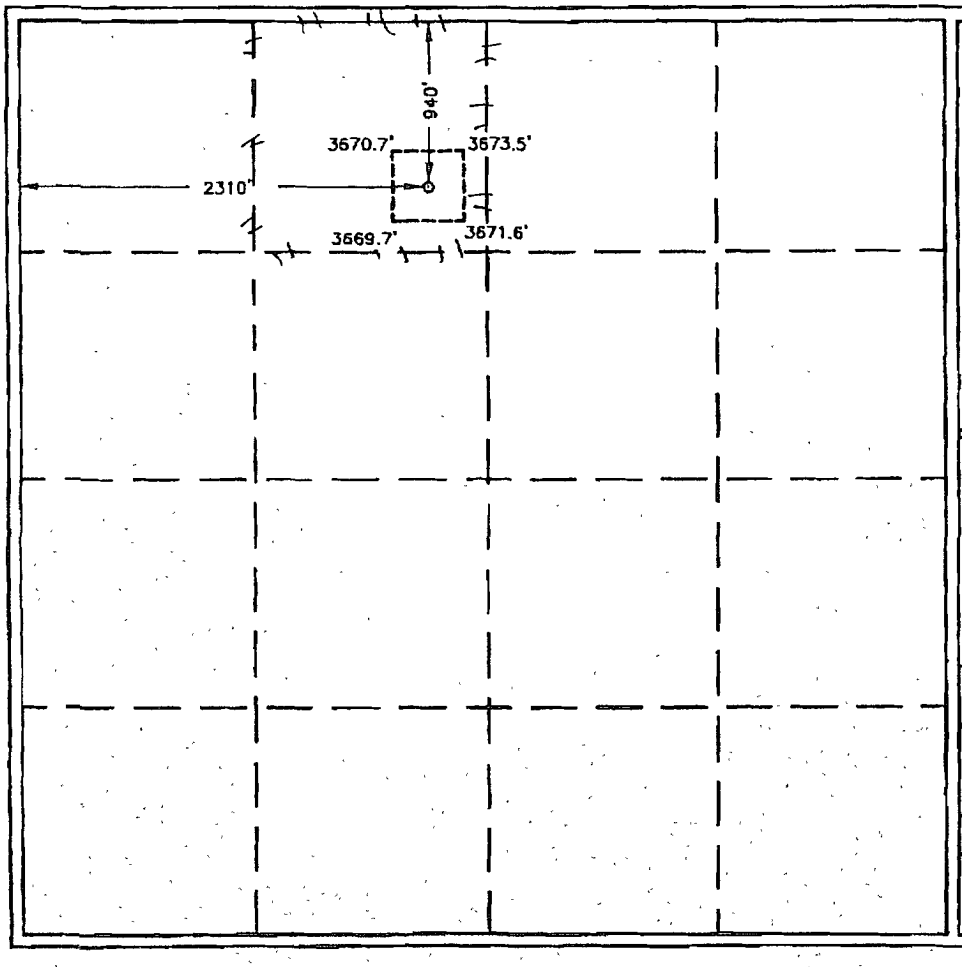
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	17	17-S	30-E		940	NORTH	2310	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
20			

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



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Printed Name

Title

Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

APRIL 19, 2001

Date Surveyed AWB

Signature & Seal of Professional Surveyor

Ronald J. Eidson 4/20/01

01-11-0436

Certificate No. RONALD J. EIDSON 3239
GARY L. EIDSON 12641

POLARIS B FED #3 DEEPENING PROGRAM

1. Estimated Tops of Important Geologic Markers

Yeso Group +/- 4250'

2. Estimated Depths of Anticipated Fresh Water, Oil, and Gas

Yeso Group +/- 4250'

This deepening originates in the Yeso and will finish at the base of the Yeso. The entire Yeso group is an oil and gas bearing interval.

3. Casing Program

Hole Size	Interval	OD Casing	Weight	Grade**	Jt./Condition	Burst/collapse/tension
4-3/4"	4692' – 6000'	4"	11.3#	L-80 or P-110	ULT-FJ/New	3.98/4.09/3.21 (L80) 5.47/5.23/4.25 (P110)

** Due to casing shortages, either L-80 or P-110 will be run. The exact grade is unknown at time of requesting permit.

See COA

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE 0.422" STAND OFF RULE BETWEEN CASING AND WELLBORE.

4. Cement Program

4" Liner: Class C, 115 sxs, yield 1.37. 64' minimum tie back to production casing.

See COA

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE LINER TOP FLUID ENTRY OR PRESSURE TEST BECAUSE THE DEEPENED WELL WILL BE COMPLETED IN THE SAME ZONE AS THE CURRENT PERFS AND THE ENTIRE INTERVAL IS RECOGNIZED BY THE OCD AS ONE INTERVAL (YESO). AS PER ONSHORE ORDER NO. 2 SECT III: REQUIREMENTS, PART B. CASING AND CEMENTING REQUIREMENTS, SUBPART b. "NO TEST SHALL BE REQUIRED FOR LINERS THAT DO NOT INCORPORATE OR NEED A SEAL MECHANISM." COG BELIEVES WE MEET THE CRITERIA TO NOT BE REQUIRED TESTING THE LINER TOP BECAUSE THERE IS NO NEED FOR A SEAL MECHANISM.

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE 200' MINIMUM TIE BACK TO THE PRODUCTION CASING BECAUSE THE LOWEST PERFORATION IS AT 4672'. THE 64' WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.

5. Minimum Specifications for Pressure Control

The BOP equipment will be a 3000 psi double ram type manually operated preventer. This equipment will be nipple up to a 7-1/16" 3K flange. The pipe rams are located above blind rams. There is no choke or kill manifold. The BOP is tested to ~~500~~ psi prior to drilling new formation. Access to the annulus will be through the valves on the 5-1/2" casing head. See COA

6. *Types and Characteristics of the Proposed Mud System*

This well will drilled from end of the existing 5-1/2" casing to TD with 2% KCl.

7. Auxillary Well Control and Monitoring Equipment

A. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

8. Logging, Testing, and Coring Program

A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be run from TD to 5-1/2" production casing shoe.
B. No drill stem tests.
C. No conventional coring anticipated.
D. Further testing procedures will be determined after the 4" liner has been cemented at TD, based on drill shows and log evaluation.

9. Abnormal Conditions, Pressure, Temperatures, and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottomhole temperature at TD is 110 degrees and the estimated maximum bottomhole pressure is 2300 psig. The drilling starts in the Yeso and ends in the Yeso. The section of Yeso being drilled has very low permeability (less than 1 md).

10. Anticipated Starting Date and Duration of Operations

There will be no road or location work required as this is an existing well location. Once commenced, drilling operations should be finished in approximately 14 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made.

11. Centralizer Program

Fixed blade stabilizer subs will be utilized in the casing string to insure adequate isolation and seal throughout the wellbore. These stabilizer subs are positive fixed blade type. These subs will actually be screwed into the casing string. A diagram of the fixed blade stabilizer sub is located at the end of this program.

The standard location of the stabilizers will be the following:

Shoe Location
Guide shoe, 1 jt casing, stabilizer sub, float collar, 1 jt casing, stabilizer sub

Perf Interval Location – between perf intervals
Stabilizer sub, 1 jt casing, stabilizer sub

Top of Liner Location
DV tool, 1 jt casing, stabilizer sub, 1 jt casing, stabilizer sub

12. Summary Drilling and Completion Program

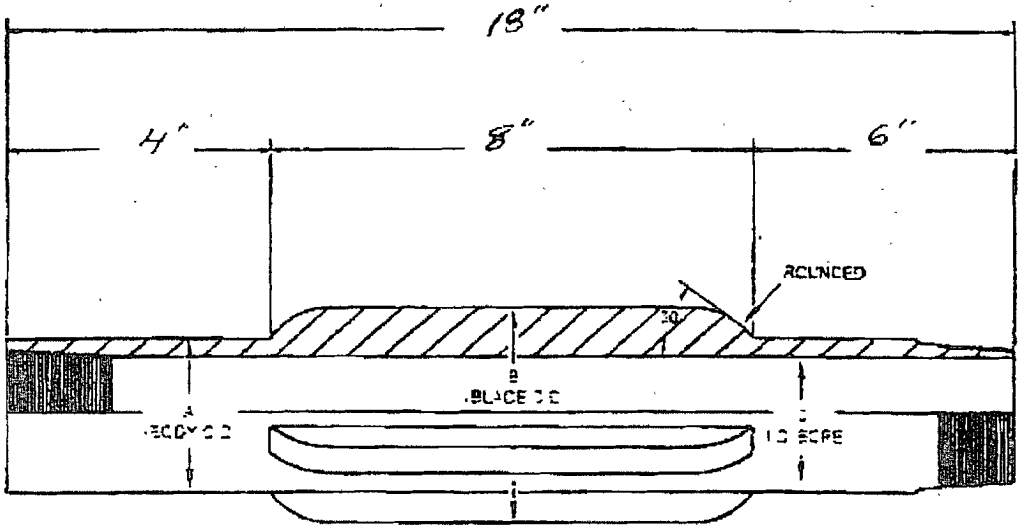
Deepening Procedure

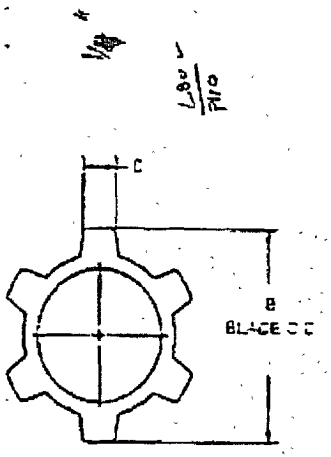
1. MIRU rig.
2. Sqz upper Yeso w/ +/- 400 sx of Class C neat. Drill out squeeze.
3. PU 4-3/4" bit and drill 4-3/4" hole from 4765' to 6000'.
4. POOH w/ bit and drillstring.
5. RIH w/ logs and log from TD to 4600'.
6. RIH w/ 4", 11.3# casing. See section 11 for general centralizer program.
7. Cement casing from TD to 4692' w/ 115 sxs Class C cmt. Drop plug and open DV tool. Circ cmt off DV tool. Drop plug to close DV tool.
8. PU workstring and RIH and drill out DV tool. POOH and LD workstring.
9. RDMO rig.

Completion Procedure

1. MIRU rig.
2. RIH/ w/ perforating guns and perforate Yeso from 5700 – 5900 w/ 2 spf, 30 holes.
3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 5650'.
4. RIH w/ perforating guns and perforate Yeso from 5400' – 5600'.
5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 5350'.
6. RIH w/ perforating guns and perforate Yeso from 5100' – 5300'.
7. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand.
8. RIH and drill out plug at 5350' and 5650'.
9. RIH and cut or back off 4" casing at 4692'. POOH w/ 4" casing. Leave 4" liner from 4692' to 6000' (TD).
10. RIH w/ tbg and locate end of tbg at 4500'.
11. RIH w/ rods and pump.
12. RDMO rig.

Centralizer Diagram





SIZE	A	B	C	D	E	F	G	DRIFT
4" x 4 3/4 11.6#	4.050	4.750	3.347"	3/4"				3.303"

RAY OIL TOOL CO.	
CENTRALIZED INTERCASING	
CLIENT	Concho Res
WELL NAME & NO.	
CASING	4" RKS 11.6#
MATERIAL	4 3/4 x 3 1/4 x 18" Ovas

Polaris B Federal 3
COG Operating LLC
30-015-31858
July 25, 2009
Conditions of Approval

1. Work to be complete within 180 days.
2. Surface disturbance beyond the existing pad requires prior approval.
3. Closed loop system to be used.
4. H2S monitoring equipment should be onsite for personnel protection from surrounding oil operations. Operator should not encounter H2S while deepening.
5. BOP to be tested to **1000 psi** based on BHP expected.
6. Variance for stand-off of less than 0.422" is approved due to NMOCD classifying the formations in this area as the Yeso group.
7. Variance approved for a minimum tie back of 64'. When plugged, cement plug will be required across this tie back and across squeezed perforations.
8. Variance for not testing seal also approved based on NMOCD classification of formations in this area as the Yeso group.
9. If cement does not circulate to DV tool, the appropriate BLM office is to be notified.
10. Test casing as per Onshore Order 2.III.B.1.h.
11. Subsequent sundry detailing work and current well test data are to be submitted when work is complete.

WWI 072509