Form 3160-5
(August 2007)

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OCD Hobbs

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMLC029405A

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.
BC FEDERAL 1

2. Name of Operator
COG OPERATING LLC
Contact: KANICIA CASTILLO
E-Mail: kcastillo@conchoresources.com

9. API Well No.
30-025-34733

3a. Address
550 WEST TEXAS AVE STE 100
MIDLAND, TX 79701

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

10. Field and Pool, or Exploratory
MALJAMAR;YESO WEST

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 20 T17S R32E 330FNL 1575FWL

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 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.)

BC FED #1 DEEPENING PROGRAM

SEE ATTACHED FOR CONDITIONS OF APPROVAL

1. Estimated Tops of Important Geologic Markers
Yeso Group +/- 5325?

2. Estimated Depths of Anticipated Fresh Water, Oil, and Gas
Yeso Group +/- 5325?

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

APPROVED
APR 14 2011
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #103495 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Hobbs

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

Signature (Electronic Submission) — Date 03/01/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By — Title PETROLEUM ENGINEER — Date APR 19 2011

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

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 ****

Additional data for EC transaction #103495 that would not fit on the form

32. Additional remarks, continued

Hole Size Interval OD Casing Weight Grade** Jt./Condition Burst/collapse/tension
4-3/4? 5797? ? 7000? 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.
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, 120 sxs, yield 1.37. 100? minimum tie back to production casing.
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 5701?. THE 100? WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.

1. 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.

2. 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.

3. 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.

4. Logging, Testing, and Coring Program
A. The electric logging program will consist of GR, 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.

5. 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).

6. 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.
SEE ATTACHMENT...

SEE ATTACHED FOR CONDITIONS OF APPROVAL

CONDITIONS OF APPROVAL

COG Operating LLC
NMLC029509A
BC Federal #1
30-025-34733
Section 20, T. 17 S., R 32 E., NMPM
Lea County, New Mexico

1. **Surface disturbance beyond the existing pad must have prior approval.**
2. **Closed loop system required.**
3. **H2S monitoring equipment should be onsite for personnel protection from surrounding oil operations. Operator should not encounter H2S while deepening.**
4. **3000 (3M) BOP to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (3M Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.**
5. **BOP to be tested to 1000 psi based on expected BHP**
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 - Pool 44500 (R-12899).**
7. **Variance for not testing seal also approved based on NMOCD classification of formations in this area as the Yeso group - Pool 44500 (R-12899)**
8. **Variance approved for a minimum tie back of 100'. When plugged, cement plug will be required across this tie back and across squeezed perforations.**
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. **Steel tanks to be used.**
12. **Work to be completed in 90 days**
13. **Subsequent sundry and completion report required when work is complete.**

EGF 041411

BC FED #1 DEEPENING PROGRAM

1. Estimated Tops of Important Geologic Markers
Yeso Group +/- 5325'

2. Estimated Depths of Anticipated Fresh Water, Oil, and Gas
Yeso Group +/- 5325'

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"	5797' – 7000'	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.

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

SEE ATTACHED FOR CONDITIONS OF APPROVAL

4. Cement Program
4" Liner: Class C, 120 sxs, yield 1.37. 100' minimum tie back to production casing.
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 5701'. THE 100' WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.

See COA

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.

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.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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, 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 5898' to 7000'.

4. POOH w/ bit and drillstring.
5. RIH w/ logs and log from TD to 5250'.
6. RIH w/ 4", 11.3# casing. See section 11 for general centralizer program.
7. Cement casing from TD to 5797' w/ 120 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 6700 – 6900 w/ 2 spf, 30 holes.
3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 6650'.
4. RIH w/ perforating guns and perforate Yeso from 6400' – 6600'.
5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 6350'.
6. RIH w/ perforating guns and perforate Yeso from 6100' – 6300'.
7. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand.
8. RIH and drill out plug at 6350' and 6650'.
9. RIH and cut or back off 4" casing at 5797'. POOH w/ 4" casing. Leave 4" liner from 5797' to 7000' (TD).
10. RIH w/ tbg and locate end of tbg at 5750'.
11. RIH w/ rods and pump.
12. RDMO rig.

Centralizer Diagram