

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

RECEIVED

Lease Serial No.  
NMLC029405A

**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.*

MAY 14 2008

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

HOBBS OGD

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator COG OPERATING LLC		7. If Unit or CA/Agreement, Name and/or No. BC FEDERAL 3
3a. Address 550 WEST TEXAS AVE STE 1300 MIDLAND, TX 79701		9. API Well No. 30-025-34932
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 1650FNL 940FEL Unit H		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			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input checked="" type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 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 shall 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 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 Respectfully request to deepen to the Yeso as follows:

1. MIRU rig.
2. PU 4-3/4" bit and drill 4-3/4" from 5897' to 7000'.
3. POOH w/bit and drillstring.
4. RIH w/ logs and log from TD to 5900'.
5. RIH w/4", 11.3# casing.
6. Cmt casing from TD to 5850'. w/115 sxs class C cmt.
7. RDMO rig.

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

*see attached  
deepening program*

14. I hereby certify that the foregoing is true and correct. Electronic Submission #59667 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Hobbs	
Name (Printed/Typed) KANICIA CARRILLO	Title PREPARER
Signature (Electronic Submission)	Date 04/14/2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE APPROVED

Approved By <i>Chris Williams</i> DISTRICT SUPERVISOR	DATE MAY 10 2008
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 any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.	

WESLEY W. INGRAM  
PETROLEUM ENGINEER

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

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
**District II**  
1301 W. Grand Avenue, Artesia, NM 88210  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-025-34932</b>		<sup>2</sup> Pool Code <b>44500</b>		<sup>3</sup> Pool Name <b>Maljamar; Yeso, West</b>	
<sup>4</sup> Property Code <b>302456</b>		<sup>5</sup> Property Name <b>BC Federal</b>			<sup>6</sup> Well Number <b>3</b>
<sup>7</sup> OGRID No. <b>229137</b>		<sup>8</sup> Operator Name <b>COG OPERATING LLC</b>			<sup>9</sup> Elevation <b>4019</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>H</b>	<b>20</b>	<b>17S</b>	<b>32E</b>		<b>1650</b>	<b>North</b>	<b>940</b>	<b>East</b>	<b>Lea</b>

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres <b>40</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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

<sup>16</sup> 	<sup>17</sup> <b>OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>  Signature <b>Kanicia Carrillo</b> Printed Name <b>Regulatory Analyst</b> Title and E-mail Address <b>04/14/08</b> Date	
	<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> <i>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 supervision, and that the same is true and correct to the best of my belief.</i> Referred Original Plat Date of Survey Signature and Seal of Professional Surveyor:	
	Certificate Number	

## BC FED #3 MASTER 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

(11.6 nom)

Hole Size	Interval	OD Casing	Weight	Grade	Jt./Condition	Burst/collapse/tension
4-3/4"	5975' – 7000'	4"	11.3#	L-80	ULT-FJ/New	3.07/3.16/3.37

**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. 200' 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.**

### 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**

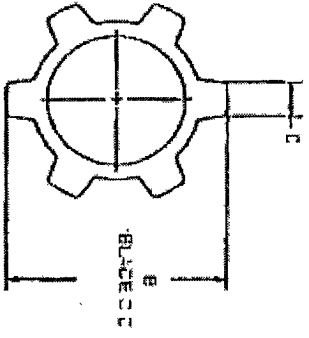
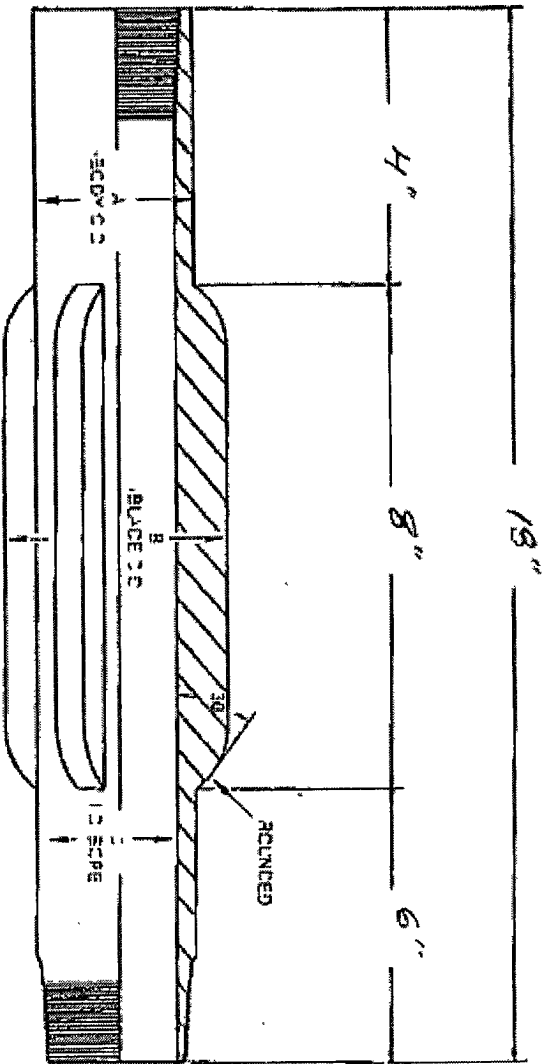
1. MIRU rig.
2. PU 4-3/4" bit and drill 4-3/4" from 5975' to 7000'.
3. POOH w/ bit and drillstring.
4. RIH w/ logs and log from TD to 5946'.
5. RIH w/ 4", 11.3# casing. See section 11 for general centralizer program.
6. Cement casing from TD to 5746' w/ 115 sxs Class C cmt. Drop plug and open DV tool. Circ cmt off DV tool. Drop plug to close DV tool.
7. PU workstring and RIH and drill out DV tool. POOH and LD workstring.
8. RDMO rig.

### **Completion Procedure**

1. MIRU rig.
2. RIH/ w/ perforating guns and perforate Yeso from 6900 – 6700 w/ 2 spf, 30 holes.
3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 89,900 # of sand. Set plug at 6600'.

4. RIH w/ perforating guns and perforate Yeso from 6500' – 6300'.
5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 89,900 # of sand. Set plug at 6200'.
6. RIH w/ perforating guns and perforate Yeso from 6100' – 5900'.
7. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 89,900 # of sand.
8. RIH and drill out plug at 6200' and 6600'.
9. RIH and cut or back off 4" casing at 5746'. POOH w/ 4" casing. Leave 4" liner from 5746' to 7000' (TD).
10. RIH w/ tbg and locate end of tbg at 5700'.
11. RIH w/ rods and pump.
12. RDMO rig.

Centralizer Diagram



1/4"   
 1.00   
 1.00

SIZE	A	B	C	D	E	F	G	DRIFT
4" 1/4 3/4 11.6"	4.050	4.750	3.347"	3/4"				3.303"

1000   
 1000   
 1000

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

1000 11.6"

11.6"