

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT **OCD Artesia**

FORM APPROVED  
OMB No. 1004-0137  
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 page 2**

1. Type of Well  
 Oil Well    Gas Well    Other

2. Name of Operator  
**COG Operating, LLC**

3a. Address      3b. Phone No. (include area code)  
**600 W. Illinois, Midland, TX 79701**      **432-686-3087**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**Sec 23 T17S R29E Mer NMP NWSW  
2465FSL 330FWL**

5. Lease Serial No.  
**NMLC028793C**

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
**NMNM88525X**

8. Well Name and No.  
**Burch Keely Unit #77**

9. API Well No.  
**30-015-03053**

10. Field and Pool, or Exploratory Area  
**Burch Keely CL- Upper Yeso**

11. County or Parish, State  
**Eddy Co, 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 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 checked="" 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 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.)

1. Set 5 1/2 CIBP @ 3250'. Circulate hole w/ MLF. Pressure test 5 1/2 liner. Spot 25 sx @ 3250-3100'.
2. Spot 75 sx @ 2615-2100'. WOC & Tag (Top of Liner).
3. Perf & Sqz 35 sx @ 900-800'. WOC & Tag.
4. Perf & Sqz 75 sx @ 450-200'. (Shoe and T Salt).
5. Perf & Sqz 45 sx @ 60' to surface.
6. Cut off well head, weld on Dry Hole Marker.

ARTESIA DISTRICT  
 FEB 06 2017  
 RECEIVED  
 SEE ATTACHED FOR  
 CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.)  
 Name (Printed Type) **Ben Montgomery**      Title **Agent**  
 Signature **Ben Montgomery**      Date **1-17-17**

Accepted for record  
 NMOCD  
 RL/B

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by **Chad Walls**      Title **Eng**      Date **2/1/17**  
 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 **CFO**

# COG Operating, LLC

**Lease & Well #**

3001503053

Spud date 5/9/1942

Completion Date 7/2/1942

Elevation - 3591

**Burch Keely Unit 77**

Sec 23 T 17S R 29E, 1980 FSL & 660 FWL

EDDY CO., NM

Calculated TOC @ 70' FS.

Calculated TOC @ 1713' fs

TOC @ 2740', TS

OH TD @ 3,325'  
5 1/2" csg

Pumped 100 sx dn 8 5/8 - 7" annulus 9/11/1989

Calc. cmt fill down to 1087'

10" hole

8 5/8" set @ 400', 100 sx cmt.

Casing cementing calculations

8 5/8" 24# 10" Surface hole

Cement volume = 100 X 1.32 CF/SK = 132 cu. Ft. slurry

132 - 25% slurry loss for shoe joint & hole loss = 99 CF

99 CF X ann. Vol. of 7.1594 FT/CF = 709'

400 - 330 = 70' estimated (calculated) top of cement.

7" 20# 8 1/4" hole 100 sx

Cement volume = 100 X 1.18 CF/SK = 118 cu.ft. slurry.

118 - 25% slurry loss for shoe joint & hole loss = 88.5 cf

88.5 CF X ann. Vol. of 9.6182 FT/CF = 851.2'

2565 - 851.2 = 1713' estimated (calculated) top of cement.

Backed off 5 1/2" csg @ 2531' 8/18/1964

7" 20# csg @ 2565', 100 sx cmt.

Initial OH completion, 2710 - 2846'.

IP 75 BOD 1/7/1942

5 1/2" 14# @ 3267'. 35 sx cmt. TOC @ 2,740', Temp survey

**Grayburg-Keely**

OH completion frac w/18,800 Gal Oil, 32,000# sd

IP 440 BOD 4/11/1956

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3001503053  
 Spud date 5/9/1942  
 Completion Date 7/2/1942  
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Sec 23 T 17S R 29E, 1980 FSL & 660 FWL  
 EDDY CO., NM

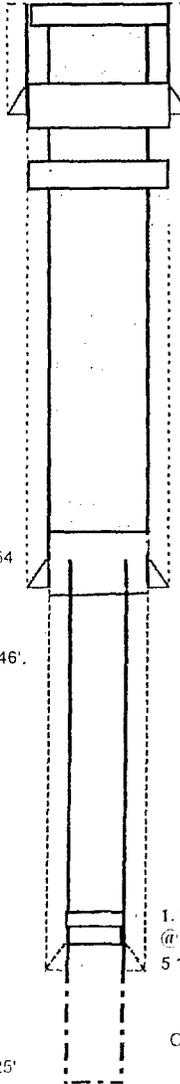
Calculated TOC @ 70' FS.  
 Pumped 100 sx dn 8 5/8 - 7" annulus 9/11/1989  
 Calc cmt fill down to 1087'  
 10" hole  
 8 5/8" set @ 400', 100 sx cmt.

Calculated TOC @ 1713' fs

Backed off 5 1/2" csg @ 2531', 8/18/1964  
 7" 20# csg @ 2565', 100 sx cmt.

TOC @ 2740' TS  
 Initial OH completion, 2710 - 2846'.  
 IP 75 BOD 1/7/1942

OH TD @ 3,325'



5. Perf & Sqz 45 sx @ 60' to surface.

4. Perf & Sqz 75 sx @ 450-200'. (Shoe and T Salt).

3. Perf & Sqz 35 sx @ 900-800'. WOC & Tag.

2. Spot 75 sx @ 2615-2100'. WOC & Tag (Top of Liner).

1. Set 5 1/2 CIBP @ 3250'. Circulate hole w/ MLF. Pressure test 5 1/2 liner. Spot 25 sx @ 3250-3100'.  
 5 1/2" 14# @ 3267'. 35 sx cmt. TOC @ 2,740', Temp survey

**Grayburg-Keely**

OH completion frac w/18,800 Gal Oil, 32,000# sd  
 IP 440 BOD 4/11/1956

*T/Salt 330*  
*T/Sec 945*  
*T SA 2523*

*Handwritten notes and signatures in the bottom right corner.*

**BUREAU OF LAND MANAGEMENT**  
**Carlsbad Field Office**  
**620 East Greene Street**  
**Carlsbad, New Mexico 88220**  
**575-234-5972**

**Permanent Abandonment of Federal Wells**  
**Conditions of Approval (LPC Habitat)**

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within **ninety (90)** days from the approval date of this Notice of Intent to Abandon.

**If you are unable to plug the well by the 90<sup>th</sup> day provide this office, prior to the 90<sup>th</sup> day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.**

**The rig used for the plugging procedure cannot be released and moved off without the prior approval of the authorized officer. Failure to do so may result in enforcement action.**

2. **Notification:** Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Eddy County, call 575-361-2822; Lea County, call 575-393-3612.

3. **Blowout Preventers:** A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. **Mud Requirement:** Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of **brine** water. Minimum nine (9) pounds per gallon.

5. **Cement Requirement:** Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours.

In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. **Before pumping or bailing cement on top of CIBP, tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary.**

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

6. Below Ground Level Cap (Lesser Prairie-Chicken Habitat): All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). **The BLM is to be notified a minimum of 4 hours prior to the wellhead being cut off to verify that cement is to surface in the casing and all annuluses. Wellhead cut off shall commence within ten (10) calendar days of the well being plugged. If the cut off cannot be done by the 10<sup>th</sup> day, the BLM is to be contacted with justification to receive an extension for completing the cut off.** Upon the plugging and subsequent abandonment of wells that are located in lesser prairie-chicken habitat, the casings shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). The well bore shall then be covered with a metal plate at least ¼ inch thick and welded in place. A weep hole shall be left in the plate and/or casing.

NMOCD also requires the operator to notify NMOCD when this type of dry hole marker is used. This can be done on the subsequent report of abandonment which is submitted to the BLM after the well is plugged. State that a below ground cap was installed as required in the COA's from the BLM.

7. Subsequent Plugging Reporting: Within 30 days after plugging work is completed, file one original and three copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date well was plugged.**

8. Trash: All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration will be required. See attached reclamation objectives.

**Timing Limitation Stipulation/ Condition of Approval for Lesser Prairie-Chicken:**

From March 1<sup>st</sup> through June 15<sup>th</sup> annually, abandonment activities will be allowed except between the hours from 3:00 am and 9:00 am. Normal vehicle use on existing roads will not be restricted