

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

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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.

5. Lease Serial No.
NMLC028784A

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 85

9. API Well No.
30-015-21663-00-S1

10. Field and Pool or Exploratory Area
GRAYBURG

11. County or Parish, State
EDDY COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
COG OPERATING LLC
Contact: ABIGAIL ANDERSON
E-Mail: abbym@bcmadassociates.com

3a. Address
600 W ILLINOIS AVENUE
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 432-580-7161

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 24 T17S R29E NWSW 2615FSL 1295FWL

12. CHECK THE 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"/> Hydraulic Fracturing	<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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

- Set 4 1/2" CIBP @ 2290'. Circulate hole w/ MLF. Pressure test csg. Spot 25 sx cmt @ 2290-1940'.
- Perf & Sqz 50 sx cmt @ 900-700'. WOC & Tag (B/Salt)
- Perf & Sqz 30 sx cmt @ 453-300'. WOC & Tag (T/Salt & 8 5/8" Shoe)
- Perf & Sqz 25 sx cmt @ 100' to surface.
- Cut off well head, verify cmt to surface, weld on Below Ground Dry Hole Marker.

*GC 10/10/19
Accepted for record - NMOCD*

Verify Cmt Surf all annulus

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

Below ground level dry hole marker required NM OIL CONSERVATION
ARTESIA DISTRICT

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #480955 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by DEBORAH MCKINNEY on 09/03/2019 (19DLM0642SE)

Name (Printed/Typed) ABIGAIL ANDERSON Title REGULATORY

Signature (Electronic Submission) Date 08/29/2019

OCT 02 2019
RECEIVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By *Janae A. Jones* Title *SPE T* Date *8-24-19*

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 *CGO*

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.

COG Operating, LLC

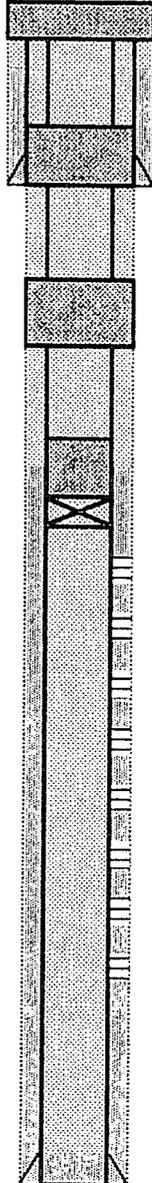
Lease & Well #

3001521663
 Spud date 11-2-75
 Completion date 12/3-75
 Elevation - 3595

Burch Keely Unit 85

Sec 24 Unit F T17S R29E, 2615 FSL & 1295 FWL
 EDDY CO., NM

Calculated TOC @ 163'



4. Perf & Sqz 25 sx cmt @ 100' to surface.

12 1/4 hole
 8 5/8" 24# @ 403, Cmt w/100 sx.

3. Perf & Sqz 30 sx cmt @ 453-300'. WOC & Tag (T/Salt & 8 5/8" Shoe)

2. Perf & Sqz 50 sx cmt @ 900-700'. WOC & Tag (B/Salt)

Calculated TOC @ 2042'

1. Set 4 1/2" CIBP @ 2290'. Circulate hole w/ MLF. Pressure test csg. Spot 25 sx cmt @ 2290-1940'.

Loco Hills

2340-2350 frac w/20,000 gal GW, 20,000# sd

Premier

2526-2530 Acidized w/2,500 gal 15% HCL

2604-2607 Acidized w/1,500 gal 15%

Jackson

2872-2877 Acidized w/4,000 gal 15%

2910-2915 Acidized w/3,500 gal 15%

3194-3200 Frac w/10,000 gal GW, 10,000# sd

Keely

3358-3365 Frac 2/20,000 gal GW, 20,000 # sd

Sub Keely

3500-3510 Frac w/20,000 gal GW, 20,000# sd

IP 45 BO, 115 MCFG, & 60 BLW 12/7/1975

PBTD - 3544'

Cmt w/350 sx CL H, 10# ;sd/sk, 5# salt/sk
 4 1/2" 9.5/10.5 # csg @ 3550'.

<p>In 1991 added perms: 2360, 2383, 2424, 2415, 2445, 2456, 2466, 2470, 2480, 2510, 2831, 40, 61, 66, 87, 2902, 24, 2942, 45, 3178, 80, 3512, 3534.</p>
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NmLC 028784A
NmNm 88525X

COG Operating, LLC

Lease & Well #

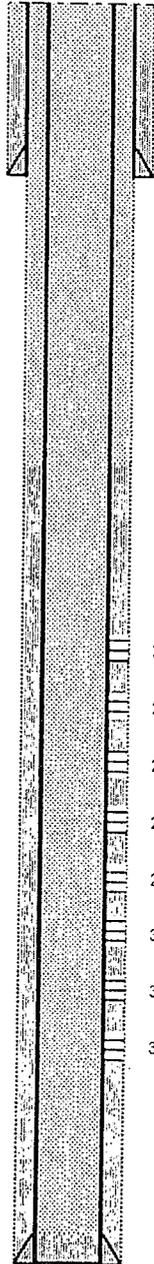
3001521663
Spud date 11-2-75
Completion date 12/3-75
Elevation - 3595

Burch Keely Unit 85

Sec 24 Unit F T17S R29E, 2615 FSL & 1295 FWL
EDDY CO., NM

T/Salt - 405±
B/Salt - 816±
Queen - 1876'
San Andres - 2563'
Lovington - 2666'

Calculated TOC @ 163'



12 1/4 hole
8 5/8" 24# @ 403, Cmt w/100 sx.

Casing cementing calculations
8 5/8" 24# 12.25" Surface hole
Cement volume = 100 X 1.32 CF/SK = 132 cu. Ft. slurry
132 - 25% slurry loss for shoe joint & hole loss = 99.0 CF
99 CF X ann. Vol. of 2.4229 FT/CF = 240'
403 - 240 = 163' estimated (calculated) top of cement.

4.5" 9.5/10.5 # 7 7/8" hole
Cement volume = 400 X 1.20 CF/SK = 480 cu.ft. slurry.
480 - 30% slurry loss for shoe joint & hole loss = 336 CF
336 CF X ann. Vol. of 4.4899 FT/CF = 1508'
3550 - 1508 = 2042' estimated (calculated) top of cement.

Calculated TOC @ 2042'

Loco Hills

- 2340-2350 frac w/20,000 gal GW, 20,000# sd ✓
- Premier**
- 2526-2530 Acidized w/2,500 gal 15% HCL ✓
- 2604-2607 Acidized w/1,500 gal 15% ✓
- Jackson**
- 2872-2877 Acidized w/4,000 gal 15% ✓
- 2910-2915 Acidized w/3,500 gal 15% ✓
- 3194-3200 Frac w/10,000 gal GW, 10,000# sd ✓
- Keely**
- 3358-3365 Frac 2/20,000 gal GW, 20,000 # sd ✓
- Sub Keely**
- 3500-3510 Frac w/20,000 gal GW, 20,000# sd ✓

In 1991 added perms:
2360, 2383, 2424, 2415, 2445,
2456, 2466, 2470, 2480, 2510,
2831, 40, 61, 66, 87, 2902, 24,
2942, 45, 3178.80, 3512, 3534.

IP 45 BO, 115 MCFG, & 60 BLW 12/7/1975

PBTD - 3544'

400 SX
Cmt w/350 sx CL H. 10# :sd/sk, 5# salt/sk
4 1/2" 9.5/10.5 # csg @ 3550' ✓

32.8199959
-104.0326309

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 90th day provide this office, prior to the 90th 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 10th 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 1st through June 15th 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