

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

**Carlsbad Field Office**  
**OCD Hobbs**  
**HOBBS OCD**

**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**

NOV 06 2017  
RECEIVED

<p>1. Type of Well  <input checked="" type="checkbox"/> Oil Well   <input type="checkbox"/> Gas Well   <input type="checkbox"/> Other</p> <p>2. Name of Operator                  COG OPERATING LLC</p> <p>3a. Address                  ONE CONCHO CENTER 600 W ILLINOIS AVENUE                  MIDLAND, TX 79701-4287</p> <p>4. Location of Well (Footage, Sec., T., R., M., or Survey Description)                  Sec 31 T25S R35E SWSE 210FSL 1023FEL                  32.080204 N Lat, 103.401344 W Lon</p>	<p>7. If Unit or CA/Agreement, Name and/or No.</p> <p>8. Well Name and No.                  SQUARE BILL FEDERAL COM 23H</p> <p>9. API Well No.                  30-025-44048</p> <p>10. Field and Pool or Exploratory Area                  WILDCAT;WOLFCAMP</p> <p>11. County or Parish, State                  LEA COUNTY, NM</p>																														
<p>12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">TYPE OF SUBMISSION</th> <th colspan="4">TYPE OF ACTION</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> Notice of Intent</td> <td><input type="checkbox"/> Acidize</td> <td><input type="checkbox"/> Deepen</td> <td><input type="checkbox"/> Production (Start/Resume)</td> <td><input type="checkbox"/> Water Shut-Off</td> </tr> <tr> <td><input type="checkbox"/> Subsequent Report</td> <td><input type="checkbox"/> Alter Casing</td> <td><input type="checkbox"/> Hydraulic Fracturing</td> <td><input type="checkbox"/> Reclamation</td> <td><input type="checkbox"/> Well Integrity</td> </tr> <tr> <td><input type="checkbox"/> Final Abandonment Notice</td> <td><input type="checkbox"/> Casing Repair</td> <td><input type="checkbox"/> New Construction</td> <td><input type="checkbox"/> Recomplete</td> <td><input checked="" type="checkbox"/> Other</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Change Plans</td> <td><input type="checkbox"/> Plug and Abandon</td> <td><input type="checkbox"/> Temporarily Abandon</td> <td>Change to Original A PD</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Convert to Injection</td> <td><input type="checkbox"/> Plug Back</td> <td><input type="checkbox"/> Water Disposal</td> <td></td> </tr> </tbody> </table>		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 checked="" type="checkbox"/> Other		<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A PD		<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	
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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 must 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 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.

COG Operating LLC, respectfully requests approval for the following changes to the original approved APD.

- Surface  
 Drill 13 ?? hole to 1,170?  
 Set 10 ?? 45.5# HCN-80 BTC casing @ 1,170?  
 Cemented in one stage with  
 Lead: 600 sx of 13.5 ppg Class C + 4% Gel ( 1.75 cuft/sx, 9 gal/sx )  
 Tail: 250 sx of 14.8 ppg Class C + 1% CaCl2 ( 1.35 cuft/sx, 6.6 gal/sx )
- Intermediate  
 Drill 9 7/8? hole to 11,825?

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

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

**Electronic Submission #393015 verified by the BLM Well Information System  
For COG OPERATING LLC, sent to the Hobbs  
Committed to AFMSS for processing by MUSTAFA HAQUE on 11/01/2017 (18MH0020SE)**

Name (Printed/Typed) MAYTE X REYES	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 10/25/2017

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

Approved By <u>MUSTAFA HAQUE</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>11/01/2017</u>
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 Hobbs		

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.

(Instructions on page 2) **\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

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**Additional data for EC transaction #393015 that would not fit on the form**

**32. Additional remarks, continued**

Set 7 5/8" 29.7# HCP-110 BTC casing @ 11,825'

Cemented in two stages with ECP/DVT @ 5,375'

Stage 1

Lead: 625 sx of 11.0 ppg Halliburton Neocem Blend ( 2.81 cuft/sx, 17.4 gal/sx )

Tail: 300 sx of 16.4 ppg Class H ( 1.10 cuft/sx, 6.0 gal/sx )

Stage 2

Lead: 750 sx of 11.0 ppg Halliburton Neocem Blend ( 2.81 cuft/sx, 17.4 gal/sx )

Tail: 150 sx of 14.8 ppg Class C ( 1.35 cuft/sx, 6.6 gal/sx )

Pilot Hole

Pilot hole will not be drilled on this well

Production

Drill 6" curve and lateral to 19,880'

Set 5" 23# P-110 BTC from 0' to 11,325' and 5" 18# P-110 BTC from 11,325' to 19,880'

Cemented in one stage with

Lead: 550 sx of 12.7 ppg 35:35:6 Class H Blend ( 2.0 cuft/sx, 10.7 gal/sx )

Tail: 1000 sx of 14.4 ppg 50:50:2 Class H Blend ( 1.25 cuft/sx, 5.7 gal/sx )



Haque, Mustafa &lt;mhaque@blm.gov&gt;

**FW: [External] EC Document Submitted - Square Bill Fed Com 23H**

Mayte Reyes &lt;MReyes1@concho.com&gt;

Wed, Nov 1, 2017 at 10:02 AM

To: "Haque, Mustafa (mhaque@blm.gov)" &lt;mhaque@blm.gov&gt;

Hi Haque,

I think since the drilling program had a few characters they didn't go through. Here is the program, and let me know if you need anything else.

Thanks,  
Mayte

Operator requests to make the following changes to the approved APD

**Surface**

Drill 13 1/2" hole to 1,170'

Set 10 3/4" 45.5# HCN-80 BTC casing @ 1,170'

Cemented in one stage with

Lead: 600 sx of 13.5 ppg Class C + 4% Gel ( 1.75 cuft/sx, 9 gal/sx )

Tail: 250 sx of 14.8 ppg Class C + 1% CaCl2 ( 1.35 cuft/sx, 6.6 gal/sx )

**Intermediate**

Drill 9 7/8" hole to 11,825'

Set 7 5/8" 29.7# HCP-110 BTC casing @ 11,825'

Cemented in two stages with ECP/DVT @ 5,375'

**Stage 1**

Lead: 625 sx of 11.0 ppg Halliburton Neocem Blend ( 2.81 cuft/sx, 17.4 gal/sx )

Tail: 300 sx of 16.4 ppg Class H ( 1.10 cuft/sx, 6.0 gal/sx )

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**Pilot Hole**

Pilot hole will not be drilled on this well

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Drill 6 3/4" curve and lateral to 19,880'

Set 5 1/2" 23# P-110 BTC from 0' - 11,325' and 5" 18# P-110 BTC from 11,325' - 19,880'

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[Quoted text hidden]

**PECOS DISTRICT  
DRILLING OPERATIONS  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	COG Operating LLC
LEASE NO.:	NM119280
WELL NAME & NO.:	Square Bill Federal Com – 23H
SURFACE HOLE FOOTAGE:	210'S & 1023'E
BOTTOM HOLE FOOTAGE	2440'S & 1650'E, sec. 30
LOCATION:	Sec. 31, T. 25 S, R. 35 E
COUNTY:	Lea County

Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input checked="" type="radio"/> Conventional	<input type="radio"/> Multibowl	
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP

**All previous COAs still apply except for the following:**

**A. CASING**

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) for Water Basin:**

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

1. The 10 3/4 inch surface casing shall be set at approximately 1170 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Formation below the 10-3/4" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

2. The minimum required fill of cement behind the 7 5/8 inch intermediate casing is:

**Option 1:**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Option 2:**

**Operator has proposed DV tool at depth of 5375', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.**

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.

**Formation below the 7-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

3. The minimum required fill of cement behind the 5 1/2 X 5 inch production casing is:

- Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

**MHH 11012017**