

Form 3160-3  
(March 2012)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM119277
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator COG OPERATING LLC (229137)		7. If Unit or CA Agreement, Name and No.
3a. Address 600 West Illinois Ave Midland TX 79701	3b. Phone No. (include area code) (432)683-7443	8. Lease Name and Well No. COLUMBUS FEDERAL COM 22H (317530)
3a. Address 600 West Illinois Ave Midland TX 79701		9. API Well No. 30-025-43623
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NENE / 210 FNL / 1300 FEL / LAT 32.093687 / LONG -103.555855 At proposed prod. zone SESE / 200 FSL / 990 FEL / LAT 32.065794 / LONG -103.552719		10. Field and Pool, or Exploratory WILDCAT / WOLFCAMP (98094)
14. Distance in miles and direction from nearest town or post office* 20 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 34 / T25S / R33E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 210 feet	16. No. of acres in lease 480	12. County or Parish LEA
17. Spacing Unit dedicated to this well 320	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, 1010 feet applied for, on this lease, ft.	19. Proposed Depth 12411 feet / 22455 feet	20. BLM/BIA Bond No. on file FED: NMB000215
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3325 feet	22. Approximate date work will start* 12/02/2016	23. Estimated duration 37 days
24. Attachments		

HOBBS OCD

MAR 15 2017

RECEIVED

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature (Electronic Submission)	Name (Printed/Typed) Mayte Reyes / Ph: (575)748-6945	Date 11/03/2016
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 03/09/2017
Title Supervisor Multiple Resources		

Application approval 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.  
Conditions of approval, if any, are attached.

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.

(Continued on page 2)

\*(Instructions on page 2)

APPROVED WITH CONDITIONS

Kc  
03/15/17

Operator Name: COG OPERATING LLC

Well Name: COLUMBUS FEDERAL COM

Well Number: 22H

String Type: SURFACE

Other String Type:

Hole Size: 13.5

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -9086

Bottom setting depth MD: 1025

Bottom setting depth TVD: 1025 ~~1095~~

Bottom setting depth MSL: -10111

Calculated casing length MD: 1025

Casing Size: 10.75

Other Size

Grade: L-80 ~~N-80~~

Other Grade:

Weight: 45.5

Joint Type: STC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

### Safety Factors

Collapse Design Safety Factor: 5.14

Burst Design Safety Factor: 0.86

Joint Tensile Design Safety Factor type: DRY

Joint Tensile Design Safety Factor: 14.7

Body Tensile Design Safety Factor type: DRY

Body Tensile Design Safety Factor: 14.7

Casing Design Assumptions and Worksheet(s):

COG Columbus 22H\_Casing Prog\_02-14-2017.pdf