

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

**SUNDRY NOTICES AND REPORTS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

**Carlsbad Field Office**  
**HOBBS**

5. Unit or CA No.  
AFMSS 460973

If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

**JUN 13 2018**

**RECEIVED**

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

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.  
TIGERCAT FEDERAL COM 3H

2. Name of Operator  
COG OPERATING LLC

Contact: MAYTE X REYES  
E-Mail: mreyes1@concho.com

9. API Well No.  
30-025-44534-00-X1

3a. Address  
ONE CONCHO CENTER 600 W ILLINOIS AVENUE  
MIDLAND, TX 79701-4287

3b. Phone No. (include area code)  
Ph: 575-748-6945

10. Field and Pool or Exploratory Area  
WILDCAT;WOLFCAMP

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 8 T26S R33E NENW 360FNL 1650FWL  
32.064304 N Lat, 103.597527 W Lon

11. County or Parish, State  
LEA COUNTY, NM

**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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 originally approved APD.

Operator requests to make the following changes to the approved APD:

Intermediate - Requesting change to 2 stage cement job. And also running L80EHC pipe. Spec sheet attached.

Drill 9 7/8" hole to 11,575'

Set 7 5/8" 29.7# L80EHC BTC casing @ 11,575'

Cemented in two stages with ECP/DVT @ 4,880'

Stage 1

Lead: 800 sx of 11.0 ppg Halliburton Neocem Blend (2.81 cuft/sx, 17.4 gal/sx)

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

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

**Electronic Submission #421647 verified by the BLM Well Information System**

**For COG OPERATING LLC, sent to the Hobbs**

**Committed to AFMSS for processing by PRISCILLA PEREZ on 05/30/2018 (18PP1135SE)**

Name (Printed/Typed) MAYTE X REYES

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 05/29/2018

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

Approved By MUSTAFA HAQUE

Title PETROLEUM ENGINEER

Date 06/07/2018

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 \*\***

**Additional data for EC transaction #421647 that would not fit on the form**

**32. Additional remarks, continued**

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

Stage 2

Lead: 375 sx of 11.0 ppg Halliburton Neocem Blend (2.81 cuft/sx, 17.4 gal/sx)

Tail: 200 sx of 14.8 ppg Class C (1.35 cuft/sx, 6.6 gal/sx)

Operator will run a fluid caliper to optimize the cement volumes for both stages, in addition to the open hole log caliper that will be obtained over the intermediate section.

Production ? Will Remain as planned in APD.

This well has already spud.



# BORUSAN MANNESMANN

## API 5CT Casing Performance Data Sheet

Manufactured to specifications of API 5CT 9th edition and bears the API monogram.  
Designed for enhanced performance through increased collapse resistance.

Grade	L80EHC
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### Pipe Body Mechanical Properties

Minimum Yield Strength	80,000 psi
Maximum Yield Strength	95,000 psi
Minimum Tensile Strength	95,000 psi
Maximum Hardness	23.0 HRC

### Sizes

OD	7 5/8 in
Nominal Wall Thickness	0.375 in
Nominal Weight, T&C	29.70 lb/ft
Nominal Weight, PE	29.06 lb/ft
Nominal ID	6.875 in
Standard Drift	6.750 in
Alternate Drift	N/A

### Minimum Performance

Collapse Pressure	6,220 psi
Internal Pressure Yield	7,310 psi
Pipe body Tension Yield	726,000 lbs
Internal pressure leak resistance STC/LTC connections	7,310 psi
Internal pressure leak resistance BTC connections	7,310 psi

### Inspection and Testing

Visual	OD Longitudinal and independent 3rd party SEA
NDT	Independent 3rd party full body EMI after hydrotest Calibration notch sensitivity: 10% of specified wall thickness

### Color code

Pipe ends	One red, one brown and two blue band
Couplings	Red with one brown band

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG Operating
LEASE NO.:	NM0106040A
WELL NAME & NO.:	Tigercat Federal Com – 3H
SURFACE HOLE FOOTAGE:	360'/N & 1650'/W
BOTTOM HOLE FOOTAGE:	200'/S & 1650'/W
LOCATION:	Sec. 8, T. 26 S, R. 33 E
COUNTY:	Lea County

Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input type="radio"/> Low	<input checked="" 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

**Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.**

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

**Operator has proposed DV tool at depth of 4880', 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. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**

**MHH 06072018**

## GENERAL REQUIREMENTS

### A. CASING

1. 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.
2. Wait on cement (WOC) for Potash Areas: 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 for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.
3. 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.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.