

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTCarlsbad Field Office
OCD Hobbs
FORM APPROVED
0137
10/31/2018
Lease Serial No.
535**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 <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name	
2. Name of Operator COG OPERATING LLC		7. If Unit or CA/Agreement, Name and/or No.	
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVENUE MIDLAND, TX 79701-4287		8. Well Name and No. BROT HELM FEDERAL COM 603H	
3b. Phone No. (include area code) Ph: 432-686-3689		9. API Well No. 30-025-46067-00-X1	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 35 T24S R34E NWNE 250FNL 2205FEL 32.180569 N Lat, 103.439369 W Lon		10. Field and Pool or Exploratory Area RED HILLS-BONE SPRINGS	
		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 APD
	<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 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 requests an amendment to our approved APD for this well to reflect the use of a multi-bowl wellhead assembly.

Specific procedure and details attached.

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

Electronic Submission #471141 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Hobbs

Committed to AFMSS for processing by PRISCILLA PEREZ on 06/28/2019 (19PP2340SE)

Name (Printed/Typed) STAN WAGNER	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 06/28/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By DYLAN ROSSMANGO	Title PETROLEUM ENGINEER	Date 07/08/2019
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 ****

[Handwritten signature]

The Operator respectfully requests the following changes to the originally approved APD.

Wellhead

The operator request to use multi-bowl wellhead assembly.

Surface

Drill 14.75" hole to 1,075'

Set 10.75" 45.5# L80 BTC casing @ 1,075'

Cement in one stage to surface:

Lead: 550 sx of Class C + 6% gel (13.5 ppg / 1.75 cuft/ sx)

Tail: 200 sx of Class C + 1% CaCl₂ (14.8 ppg/ 1.35 cuft/sx)

spec sheet attached

The Operator respectfully requests to preset the surface casing on the subject well.

Description of operations

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
 - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations)
 - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and tested as soon as the surface casing is cut off and the WOC time has been reached.
3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on the wing valve.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nipped up and tested on the wellhead before drilling operations resume on each well.
 - a. The larger rig will move back onto the location with 90 days from the point at which the wells are secured and spudder rig is moved off location.
 - b. The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations
7. Operator will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, Operator will secure the wellhead area by placing a 1 inch steel plate over the cellar and wellhead.

Intermediate

5M BOP System

Drill 9.875" hole to 11,873'

Set 7.625" 29.7# HCL-80 BTC @ 11,873'

Cement in two stages to surface with DV tool and ECP @ 5,485'

First Stage:

Lead: 700 sx of Halliburton NeoCem (11.0 ppg / 2.81 cuft/ sx)

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

Second Stage:

Lead: 900 sx of Halliburton NeoCem (11.0 ppg / 2.81 cuft/ sx)

Tail: 150 sx of Class C + 2% CaCl₂ (14.8 ppg/ 1.35 cuft/sx)

Production

10M BOP System (5M Annular variance approved with original APD)

Drill 6.75" hole to 22,754'

Set 5.5" 23# P110 BTC from 0' to 11,375' (500' inside intermediate casing)

Set 5.5" 23# P110 HC TMK UP SF Torq (spec sheet attached) from 11,375' to 22,754'

Cement in one stage to surface

Lead: 550 sx of 35:36:6 Class C (12.7 ppg / 1.98 cuft/ sx)

Tail: 2700 sx of 50:50:2 Class H Blend (14.4 ppg / 1.25 cuft/sx)



U. S. Steel Tubular Products

4/23/2019 4:50:53 PM

10.750" 45.50lbs/ft (0.400" Wall) L80

MECHANICAL PROPERTIES

	Pipe	BTC	LTC	STC	
Minimum Yield Strength	80,000	--	--	--	psi
Maximum Yield Strength	95,000	--	--	--	psi
Minimum Tensile Strength	95,000	--	--	--	psi

DIMENSIONS

	Pipe	BTC	LTC	STC	
Outside Diameter	10.750	11.750	--	11.750	in.
Wall Thickness	0.400	--	--	--	in.
Inside Diameter	9.950	9.950	--	9.950	in.
Standard Drift	9.794	9.794	--	9.794	in.
Alternate Drift	9.875	9.875	--	9.875	in.
Nominal Linear Weight, T&C	45.50	--	--	--	lbs/ft
Plain End Weight	44.26	--	--	--	lbs/ft

PERFORMANCE

	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	2,470	2,470	--	2,470	psi
Minimum Internal Yield Pressure	5,210	5,210	--	5,210	psi
Minimum Pipe Body Yield Strength	1,040	--	--	--	1,000 lbs
Joint Strength	--	1,063	--	692	1,000 lbs
Reference Length	--	15,572	--	10,142	ft

MAKE-UP DATA

	Pipe	BTC	LTC	STC	
Make-Up Loss	--	4.81	--	3.50	in.
Minimum Make-Up Torque	--	--	--	5,190	ft-lbs
Maximum Make-Up Torque	--	--	--	8,650	ft-lbs

Legal Notice

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Spring, Texas 77380

1-877-893-9461
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www.usstubular.com

TUBULAR PARAMETERS

Nominal OD, (inch)	5.500
Wall Thickness, (inch)	0.415
Pipe Grade	P110 HC
Coupling	Regular
Coupling Grade	P110 HC
Drift	Standard

CONNECTION PARAMETERS

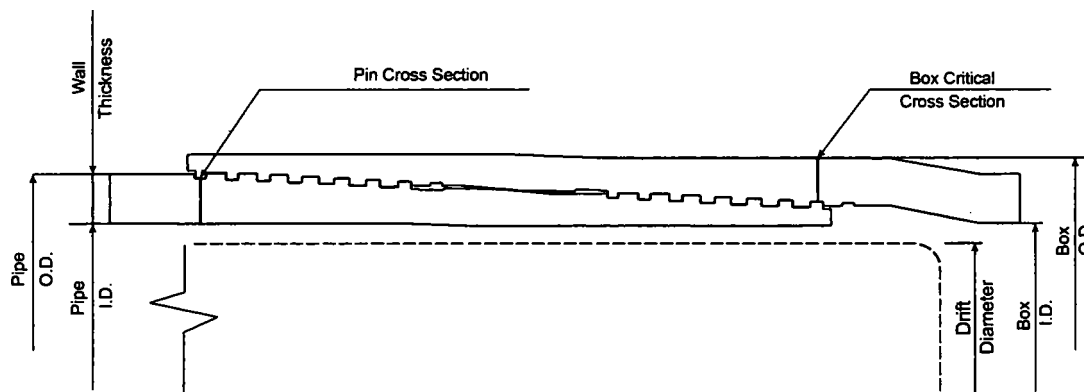
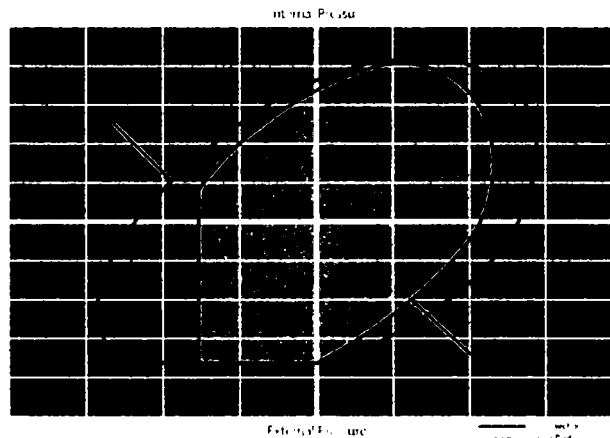
Connection OD (inch)	5.830
Connection ID, (inch)	4.626
Make-Up Loss, (inch)	5.592
Connection Critical Area, (sq inch)	7.007
Yield Strength in Tension, (klbs)	656
Yield Strength in Compression, (klbs)	656
Tension Efficiency	90%
Compression Efficiency	90%
Min. Internal Yield Pressure, (psi)	14 530
Collapse Pressure, (psi)	15 990
Uniaxial Bending (deg/100ft)	83.0

MAKE-UP TORQUES

Minimum Make-Up Torque, (ft-lb)	16 100
Optimum Make-Up Torque, (ft-lb)	23 000
Maximum Make-Up Torque, (ft-lb)	25 300
Operating Torque, (ft-lb)	34 500
Yield Torque, (ft-lb)	43 000

PIPE BODY PROPERTIES

PE Weight, (lbs/ft)	22.54
Nominal Weight, (lbs/ft)	23.00
Nominal ID, (inch)	4.670
Drift Diameter, (inch)	4.545
Nominal Pipe Body Area, (sq inch)	6.630
Yield Strength in Tension, (klbs)	729
Min. Internal Yield Pressure, (psi)	14 530
Collapse Pressure, (psi)	15 990
Minimum Yield Strength, (psi)	110 000
Minimum Tensile Strength, (psi)	125 000



NOTE: The content of this Technical Data Sheet is for general information only and does not guarantee performance or imply fitness for a particular purpose, which only a competent drilling professional can determine considering the specific installation and operation parameters. This information supersedes all previous versions for this connection information that is printed or downloaded. It is no longer controlled by TBM and might not be the latest information. Anyone using the information hereunder does so at their own risk. To verify that you have the latest technical information, please contact PAO TBM Technical Sales at Russett, Tel: 775-760-7445, Email: techsales@tmb-group.com and TBM INSIGHT North America, Tel: +1 2611949-1044, Email: techsales@tmb-insight.com

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