Form 3160-5 (August 2007)

Approved By CHRISTOPHER WALLS

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.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0135

Date 03/07/2011

	Expires.	July 31, 2010	
5.	Lease Serial No.	,	
	NMNM074935		

SUNDRY Do not use th abandoned we	-314	NMNM074935 6. If Indian, Allottee or Tribe Name 7. If Unit or CA/Agreement, Name and/or No.			
SUBMIT IN TRI	7. If Unit or CA/Ago				
1. Type of Well				8. Well Name and No ELECTRA FEDERAL 1	
Oil Well Gas Well Ot		KANICIA CASTILLO		LIVAL I	
2 Name of Operator COG OPERATING LLC	9. API Well No. 30-015-31 42 9	30-015-31429-00-S1			
3a. Address 550 WEST TEXAS AVENUE MIDLAND, TX 79701	10 Field and Pool, o LOCO HILLS	10 Field and Pool, or Exploratory LOCO HILLS & GLON - YES			
4 Location of Well (Footage, Sec.,	11. County or Parish	11. County or Parish, and State			
Sec 15 T17S R30E SENW 23	310FNL 2310FWL		EDDY COUNT	TY, NM `	
12. CHECK APP	ROPRIATE BOX(ES) TO	O INDICATE NATURE OF N	OTICE, REPORT, OR OTH	ER DATA	
TYPE OF SUBMISSION		TYPE OF	ACTION		
Notice of Intent	Acidize	Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
	☐ Alter Casing	☐ Fracture Treat	Reclamation	☐ Well Integrity	
☐ Subsequent Report	Casing Repair	☐ New Construction	Recomplete	Other	
Final Abandonment Notice	Change Plans	Plug and Abandon	☐ Temporarily Abandon		
	Convert to Injection	Plug Back	☐ Water Disposal		
If the proposal is to deepen direction Attach the Bond under which the wo following completion of the involved	ally or recomplete horizontally, ork will be performed or provide I operations. If the operation re bandonment Notices shall be fil	nt details, including estimated starting give subsurface locations and measur the Bond No on file with BLM/BIA sults in a multiple completion or recoi ed only after all requirements, includi	ed and true vertical depths of all per Required subsequent reports shall impletion in a new interval, a Form 3	tinent markers and zones. be filed within 30 days 160-4 shall be filed once	
ELECTRA FED #1 DEEPEN	NG PROGRAM	CEE AFT	A CHIED EOD		
1. Estimated Tops of Important Geologic Markers Yeso Group +/- 4350? SEE ATTACHED FOR CONDITIONS OF APPROVAL				AL	
2. Estimated Depths of Anticip Yeso Group +/- 4350?	oated Fresh Water, Oil, a	nd Gas			
group is an oil and gas bearing interval.				EIVED	
3. Casing Program	,		MAR	1 2011	
•			NMOCD	ARTESIA	
14. Thereby certify that the foregoing is	*Electronic Submission # For COG O	103497 verified by the BLM Well PERATING LLC, sent to the Car essing by KURT SIMMONS on 0	risbad		
Name (Printed/Typed) KANICIA		Title PREPAR	•		
Signature (Electronic	Submission)	Date 03/01/20	11 -		
		OR FEDERAL OR STATE C			
	THIS STAGET				

TitlePETROLEUM ENGINEER

Office Carlsbad

Additional data for EC transaction #103497 that would not fit on the form

32. Additional remarks, continued

Hole Size Interval OD Casing Weight Grade** Jt./Condition Burst/collapse/tension 4-3/4? 4825? ? 6400? 4? 11.3# L-80 or P-110 ULT-FJ/New 3.98/4.09/3.21 (L80) 5.47/5.23/4.25 (P110)

** Due to casing shortages, either L-80 or P-110 will be run. The exact grade is unknown at time of requesting permit.

NOTE: COĞ OPERATING LLC REQUESTS A VARIANCE TO THE 0.422? STAND OFF RULE BETWEEN CASING AND WELLBORE.

50 4. Cement Program

P λ

4. Cement Program
4? Liner: Class C, 115 sxs, yield 1.37. 13? minimum tie back to production casing.
NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE LINER TOP FLUID ENTRY OR PRESSURE TEST BECAUSE
THE DEEPENED WELL WILL BE COMPLETED IN THE SAME ZONE AS THE CURRENT PERFS AND THE ENTIRE INTERVAL
IS RECOGNIZED BY THE OCD AS ONE INTERVAL (YESO). AS PER ONSHORE ORDER NO. 2 SECT III:
REQUIREMENTS, PART B. CASING AND CEMENTING REQUIREMENTS, SUBPART b. 7NO TEST SHALL BE REQUIRED FOR
LINERS THAT DO NOT INCORPORATE OR NEED A SEAL MECHANISM.? COG BELIEVES WE MEET THE CRITERIA TO NOT

BE REQUIRED TESTING THE LINER TOP BECAUSE THERE IS NO NEED FOR A SEAL MECHANISM.

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE 200? MINIMUM TIE BACK TO THE PRODUCTION CASING BECAUSE THE LOWEST PERFORATION IS AT 4805?. THE 13? WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.

5. Minimum Specifications for Pressure Control

The BOP equipment will be a 3000 psi double ram type manually operated preventer. This equipment will be nipple up to a 7-1/16? 3K flange. The pipe rams are located above blind rams. There is no choke or kill manifold. The BOP is tested to 500 psi prior to drilling new formation. Access to the annulus will be through the valves on the 5-1/2? casing head.

6. Types and Characteristics of the Proposed Mud System This well will drilled from end of the existing 5-1/2? casing to TD with 2% KCL SEE ATTACHMENT...

ELECTRA FED #1 DEEPENING PROGRAM

1. Estimated Tops of Important Geologic Markers

Yeso Group +/- 4350'

2. Estimated Depths of Anticipated Fresh Water, Oil, and Gas

Yeso Group +/- 4350'

This deepening originates in the Yeso and will finish at the base of the Yeso. The entire Yeso group is an oil and gas bearing interval.

3. Casina Program

	3 3					
Hole	Interval	OD	Weigh	Grade	Jt./Condition	Burst/collapse/tens
Size ·		Casing	t	**		ion
4-3/4"	4825' –	4"	11.3#	L-80 or	ULT-FJ/New	3.98/4.09/3.21 (L80)
	6400'		'	P-110		5.47/5.23/4.25
		}				(P110)

^{**} Due to casing shortages, either L-80 or P-110 will be run. The exact grade is unknown at time of requesting permit.

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE 0.422" STAND OFF RULE BETWEEN CASING AND WELLBORE.

4. Cement Program

Class C, 115 sxs, yield 1.37. 13 minimum tie back to production casing.

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE LINER TOP FLUID ENTRY OR PRESSURE TEST BECAUSE THE DEEPENED WELL WILL BE COMPLETED IN THE SAME ZONE AS THE CURRENT PERFS AND THE ENTIRE INTERVAL IS RECOGNIZED BY THE OCD AS ONE INTERVAL (YESO). AS PER ONSHORE ORDER NO. 2 SECT III: REQUIREMENTS, PART B. CASING AND CEMENTING REQUIREMENTS, SUBPART b. "NO TEST SHALL BE REQUIRED FOR LINERS THAT DO NOT INCORPORATE OR NEED A SEAL MECHANISM." COG BELIEVES WE MEET THE CRITERIA TO NOT BE REQUIRED TESTING THE LINER TOP BECAUSE THERE IS NO NEED FOR A SEAL MECHANISM.

NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE 200' MINIMUM TIE BACK TO THE PRODUCTION CASING BECAUSE THE LOWEST PERFORATION IS AT 4805'. THE 13' WILL ALLOW US TO NOT COVER EXISTING PERFORATIONS.

5. Minimum Specifications for Pressure Control

The BOP equipment will be a 3000 psi double ram type manually operated preventer. This equipment will be nipple up to a 7-1/16" 3K flange. The pipe rams are located above blind rams. There is no choke or kill manifold. The BOP is tested to 500 psi prior to drilling new formation. Access to the annulus will be through the valves on the 5-1/2" casing head.

6. Types and Characteristics of the Proposed Mud System

This well will drilled from end of the existing 5-1/2" casing to TD with 2% KCI.



7. Auxillary Well Control and Monitoring Equipment

A. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

8. Logging, Testing, and Coring Program

- A. The electric logging program will consist of GR, Spectral Density, Dual Spaced Neutron, CSNG Log and will be run from TD to 5-1/2" production casing shoe.
- B. No drill stem tests.
- C. No conventional coring anticipated.
- D. Further testing procedures will be determined after the 4" liner has been cemented at TD, based on drill shows and log evaluation.

9. Abnormal Conditions, Pressure, Temperatures, and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottomhole temperature at TD is 110 degrees and the estimated maximum bottomhole pressure is 2300 psig. The drilling starts in the Yeso and ends in the Yeso. The section of Yeso being drilled has very low permeability (less than 1 md).

10. Anticipated Starting Date and Duration of Operations

There will be no road or location work required as this is an existing well location. Once commenced, drilling operations should be finished in approximately 14 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made.

11. Centralizer Program

Fixed blade stabilizer subs will be utilized in the casing string to insure adequate isolation and seal throughout the wellbore. These stabilizer subs are positive fixed blade type. These subs will actually be screwed into the casing string. A diagram of the fixed blade stabilizer sub is located at the end of this program.

The standard location of the stabilizers will be the following:

Shoe Location

Guide shoe, 1 jt casing, stabilizer sub, float collar, 1 jt casing, stabilizer sub

Perf Interval Location – between perf intervals Stabilizer sub, 1 jt casing, stabilizer sub

Top of Liner Location

DV tool, 1 jt casing, stabilizer sub, 1 jt casing, stabilizer sub

12. Summary Drilling and Completion Program

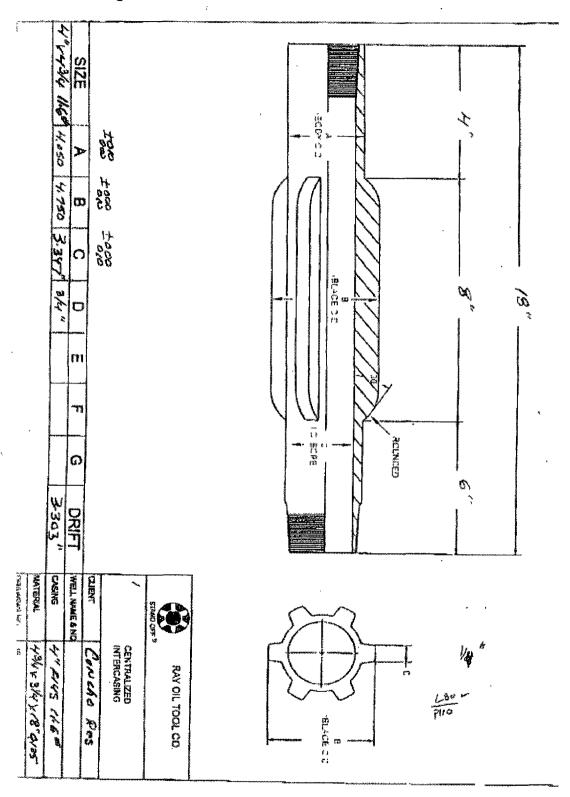
Deepening Procedure

- 1. MIRU rig.
- 2. Sqz upper Yeso w/+/-400 sx of Class C neat. Drill out squeeze.
- 3. PU 4-3/4" bit and drill 4-3/4" hole from 4850' to 6400'.

- 4. POOH w/ bit and drillstring.
- 5. RIH w/ logs and log from TD to 4700'.
- 6. RIH w/ 4", 11.3# casing. See section 11 for general centralizer program.
- 7. Cement casing from TD to 4825' w/ 115 sxs Class C cmt. Drop plug and open DV tool. Circ cmt off DV tool. Drop plug to close DV tool.
- 8. PU workstring and RIH and drill out DV tool. POOH and LD workstring.
- 9. RDMO rig.

Completion Procedure

- 1. MIRU rig.
- 2. RIH/ w/ perforating guns and perforate Yeso from 6100 6300 w/ 2 spf, 30 holes.
- 3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 6050'
- 4. RIH w/ perforating guns and perforate Yeso from 5800' 6000'.
- 5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 5750'
- 6. RIH w/ perforating guns and perforate Yeso from 5500' 5700'.
- 7. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand.
- 8. RIH and drill out plug at 5750' and 6050'.
- 9. RIH and cut or back off 4" casing at 4825'. POOH w/ 4" casing. Leave 4" liner from 4825' to 6400' (TD).
- 10. RIH w/ tbg and locate end of tbg at 4775'.
- 11. RIH w/ rods and pump.
- 12. RDMO rig.



Electra Federal 1 COG Operating, LLC 30-015-31429 March 7, 2011 Conditions of Approval

- 1. Work to be complete within 1 year.
- 2. Surface disturbance beyond the existing pad requires prior approval.
- 3. Closed loop system to be used.
- 4. H2S monitoring equipment should be onsite for personnel protection from surrounding oil operations. Operator should not encounter H2S while deepening.
- 5. BOP to be tested to 1000 psi based on BHP expected.
- 6. Variance for stand-off of less than 0.422" is approved due to NMOCD classifying the formations in this area as the Yeso group.
- 7. Variance approved for a minimum tie back of 50'. When plugged, cement plug will be required across this tie back and across squeezed perforations.
- 8. Variance for not testing seal also approved based on NMOCD classification of formations in this area as the Yeso group.
- 9. If cement does not circulate to DV tool, the appropriate BLM office is to be notified.
- 10. Test casing as per Onshore Order 2.III.B.1.h.
- 11. Subsequent sundry detailing work and current well test data are to be submitted when work is complete.

CRW 030711