Form 3160-5 (August 2007)



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCP-Artack

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

Expires: July 31, 2010 Lease Serial No.

PORTS ON WELLS

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. NMLC056551A

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRII	7. If Unit or CA/Agre	ement, Name and/or No.				
1. Type of Well	8. Well Name and No.					
☑ Oil Well ☐ Gas Well ☐ Oth	HOLDER CB FEI) 5				
Name of Operator COG OPERATING LLC	Contact: E-Mail: kcarrillo@			9. API Well No. 30-015-26529-0)0-S1	
3a. Address 550 W TEXAS, STE 1300 FAS MIDLAND, TX 79701	SKEN TOWER II	3b. Phone No Ph: 432-68		(include area code) 10. Field and Pool, or Exploratory GRAYBURG		
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	n)			11. County or Parish,	and State
Sec 17 T17S R30E NWNW 12	295FNL 990FWL		JAN 12 2009 EDDY COUNTY, NM DCD-ARTERIA			Y, NM
			UCU-ART	TESIA		
12. CHECK APPR	ROPRIATE BOX(ES) TO	O INDICATE	NATURE OF	NOTICE, R	EPORT, OR OTHE	R DATA
TYPE OF SUBMISSION			ТҮРЕ О	F ACTION	(
Notice of Intent	☐ Acidize	□ Dee	pen	□ Produc	tion (Start/Resume)	□ Water Shut-Off
_	Alter Casing	□ Frac	ture Treat	☐ Reclam	ation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	□ New	Construction	Recom Recom	plete	Other
☐ Final Abandonment Notice	☐ Change Plans	□ Plug	and Abandon	□ Tempo	rarily Abandon	
	☐ Convert to Injection	□ Plug	g Back	□ Water I	Disposal	
testing has been completed. Final A determined that the site is ready for the COG Operating LLC proposes. Deepening Procedure: 1. MIRU rig. 2. PU 4-3/4? bit and drill 4-3/4. 3. POOH w/ bit and drillstring. 4. RIH w/ logs and log from TI. 5. RIH w/ 4?, 11.3# casing. S. 6. Cement casing from TD to off DV tool. Drop plug to clos. 7. PU workstring and RIH and 8. RDMO rig.	Final inspection.) Is to deepen & recomplete If from 4700? to 6000?. D to 4700?. See section 11 for genera 4582? w/ 115 sxs Class E DV tool. I drill out DV tool. POOH	e to the Yeso Il centralizer p C cmt. Drop p I and LD work	as follows: SE CC rogram. olug and open E string.	E ATTA ONDITIO OV tool. Circ ACC	CHED FOR ONS OF APP	ROVAL cord
14. Thereby certify that the foregoing i	Electronic Submission	#62815 verified	by the BLM We C, sent to the C	II Informațio	Gaystem Gayste	nspector
Con Name(Printed/Typed) KANICIA	For COG (nmitted to AFMSS for prod CARRILLO	RT SIMMONS on Title PREPA	09/09/2008 (udringsprief II AR	TESIA	
Name(17mea/1ypea/ KANICIA	CARRILLO	***************************************	THE PREP	ANEN		
Signature (Electronic	Submission)		Date 09/05/2	2008		
	THIS SPACE F	OR FEDERA	AL OR STATE	OFFICE L	ISE	
Approved By WESLEY INGRAM			TitlePETROL	EUM ENGIN	EER	2009 Date 01/07/2
Conditions of approval, if any, are attach certify that the applicant holds legal or ecwhich would entitle the applicant to conditions.	quitable title to those rights in t	es not warrant or the subject lease	Office Carlsba	ad		
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent	3 U.S.C. Section 1212, make it statements or representations	a crime for any as to any matter	person knowingly a within its jurisdiction	and willfully to	make to any department	or agency of the United

Additional data for EC transaction #62815 that would not fit on the form

32. Additional remarks, continued

Recompletion Procedure:

1. MIRU rig.

2. RIH/ w/ perforating guns and perforate Yeso from 5700 ? 5900 w/ 2 spf, 30 holes.

KIH/ W/ perforating guris and periorate Yeso from 5700 ? 5900 W/2 spl, 30 fioles.
 Acidize w/ 2500 gals of 15% HCI. Frac zone w/ 179,800 # of sand. Set plug at 5650?.
 RIH w/ perforating guns and perforate Yeso from 5400? ? 5600?.
 Acidize w/ 2500 gals of 15% HCI. Frac zone w/ 179,800 # of sand. Set plug at 5350?.
 RIH w/ perforating guns and perforate Yeso from 5100? ? 5300?.
 Acidize w/ 2500 gals of 15% HCI. Frac zone w/ 179,800 # of sand.

8. RIH and drill out plug at 5350? and 5650?.
9. RIH and cut or back off 4? casing at 4582?. POOH w/ 4? casing. Leave 4? liner from 4582? to 6000? (TD).

10. RIH w/ tbg and locate end of tbg at 4500?.

11. RIH w/ rods and pump.

12. RDMO rig.

COG proposes to down hole commingle the Grayburg Jackson SR Queen Grayburg SA, (28509) with the Loco Hills; Glorieta-Yeso, (96718).

Commingling will not reduce the value of the total remaining production. The proposed intervals are as follows:

Grayburg Jackson SR Queen Grayburg SA 2990' - 3642'

5100' - 5900' Loco Hills; Glorieta-Yeso

Percentages to be determined after completion.

Ownership in all zones is the same.

District 1
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe. NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District IV 220 S. St. Francis Dr., Santa	Fe. NM 87505			Santa Fe, N.	IVI 873U3		Памі	ENDED REPOR	
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API Numbe	<u> </u>	² Pool Code		-	³ Pool Na	me	•		
30-015-265	29		96718			Loco Hills; Glo	rieta-Yeso	•	
4 Property Code				S Property !			6 .	⁶ Well Number	
302504				Holder CB			5		
⁷ OGRID №. 229137				⁸ Operator Name COG OPERATING LLC				⁹ Elevation 3659.8	
harts;					Location			3032.8	
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Certificate Number

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised June 10, 2003 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

☐ AMENDED REPORT

1220 S St. Francis	Dr., Santa F	e, NM 87505				*		☐ AME	ENDED REPORT	
,		V	VELL LO	CATIO1	N AND ACR	EAGE DEDIC	ATION PLA	Τ .		
API Number 30-015-26529			· 2 Pool Code		³ Pool Name					
				28509		Grayburg Jackson SR; Queen Grayburg SA				
4 Property	Code			⁵ Property Name					6 Well Number	
30250-					5					
OGRID	No.	~~~~				⁹ Elevation				
229137				COG OPERATING LLC					3659.8	
					10 Surface	Location	ę			
UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County	
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	. ,	d	11 Вс	ttom Ho	le Location It	f Different Fron	n Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
¹² Dedicated Acre	s li3 Joint o	r Infill 14 (Censolidation	Code 15 Or	der No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 17 OPERATOR CERTIFICATION I hereby certify that the information contained herein 295 is true and complete to the best of my knowledge and 990 Kanicia Carrillo Printed Name Regulatory Analyst Title and E-mail Address 09/05/08 Date 18SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief Date of Survey Signature and Seal of Professional Surveyor Certificate Number

CB HOLDER FED #5 DEEPENING PROGRAM

1. Estimated Tops of Important Geologic Markers

Yeso Group +/- 4250'

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

Yeso Group +/- 4250'

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. Casing Program

Hole Size	Interval	OD Casing	Weight	Grade**	Jt./Condition	Burst/collapse/tension
4-3/4"	4700' 6000'	4"	11.3#	L-80 or	ULT-FJ/New	3.98/4.09/3.21 (L80)
				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

4" Liner:

Class C, 115 sxs, yield 1.37. 100' 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 4526'. THE 100' 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.

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

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	L'IVANGE MASS 4750 3.34" BK"	# 000 1+000 000	3 : 30 th 2 th
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MATERIAL Franklick w.	WEIL WANE & NO	CTIENL.	
Serb, B. A. M. E. A. ME.	111 2112 1160	RAY OIL TOOL CO CENTRALIZED INTERCASING	For Paris

- A. The electric logging program will consist of GR-Dual Laterolog, 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. PU 4-3/4" bit and drill 4-3/4" from 4700' to 6000'.
- 3. POOH w/ bit and drillstring.
- 4. RIH w/ logs and log from TD to 4700'.
- 5. RIH w/ 4", 11.3# casing. See section 11 for general centralizer program.
- Cement casing from TD to 4582' w/ 115 sxs Class C cmt. Drop plug and open DV tool. Circ cmt off DV tool. Drop plug to close DV tool.
- 7. PU workstring and RIH and drill out DV tool. POOH and LD workstring.
- 8. . RDMO rig.

Completion Procedure

- 1. MIRU rig.
- 2. RIH/ w/ perforating guns and perforate Yeso from 5700 5900 w/ 2 spf, 30 holes.
- 3. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 5650'.
- 4. RIH w/ perforating guns and perforate Yeso from 5400' 5600'.
- 5. Acidize w/ 2500 gals of 15% HCl. Frac zone w/ 179,800 # of sand. Set plug at 5350'.
- 6. RIH w/ perforating guns and perforate Yeso from 5100' 5300'.
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- 8. RIH and drill out plug at 5350' and 5650'.
- 9. RIH and cut or back off 4" casing at 4582'. POOH w/ 4" casing. Leave 4" liner from 4582' to 6000' (TD).
- 10. RIH w/ tbg and locate end of tbg at 4500'.
- 11. RIH w/ rods and pump.
- 12. RDMO rig.

Holder CB Federal 5 COG Operating LLC 30-015-26529 January 7, 2009 Conditions of Approval

- 1. Downhole Commingling Order DHC-4108 received on sundry dated 11/14/2008.
- 2. Work to be complete within one year.
- 3. Variance for stand-off of less than 0.422" is approved due to NMOCD classifying the formations in this area as the Yeso group Pool 96718 and DHC-4108.
- 4. Minimum tie back of 200'. Records on file with BLM indicate that existing perforations are approximately 1000' above bottom of hole. When plugged, cement plug will be required across this tie back.
- 5. Variance for not testing seal is approved based on NMOCD classification of formations in this area as the Yeso group Pool 96718 and DHC-4108.
- 6. Radial CBL to be run. Submit copy to BLM.
- 7. Surface disturbance is not to exceed existing pad without prior approval.
- 8. Steel tanks to be used.
- 9. BOP to be tested to 1000 psi based on BHP expected.
- 10. Subsequent sundry and completion report required when work is complete.

WWI 010709