

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address COG OPERATING LLC 550 W TEXAS MIDLAND, TX 79701		2. OGRID Number 229137
4. Property Code 302502		3. API Number 30-015-37702
5. Property Name HARPER STATE		6. Well No. 018

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
K	16	17S	30E	K	1730	S	1935	W	EDDY

**8. Pool Information**

LOCO HILLS; GLORIETA-YESO	96718
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**Additional Well Information**

9. Work Type New Well	10. Well Type OIL	11. Cable/Rotary	12. Lease Type State	13. Ground Level Elevation 3669
14. Multiple N	15. Proposed Depth 6000	16. Formation Yeso Formation	17. Contractor	18. Spud Date 5/30/2010
Depth to Ground water 110		Distance from nearest fresh water well > 1000		Distance to nearest surface water > 1000
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12 _____ mils thick Clay <input type="checkbox"/> Pit Volume: 5000 bbls Drilling Method: Closed Loop System <input type="checkbox"/> Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

**19. Proposed Casing and Cement Program**

Type	Hole Size	Casing Type	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	450	450	0
Int1	11	8.625	24	1350	500	0
Prod	7.875	5.5	17	6000	900	0

**Casing/Cement Program: Additional Comments**

COG proposes to drill a 17-1/2" hole to 450' w/fr water mud system, wt 8.5, vis 28, set 13-3/8" casing & cement to surface. Drill a 11" hole to 1350' w/fr mud system, wt 10, vis 30, set 8-5/8" casing & cement to surface. Drill a 7-7/8" hole to 6000' w/cut brine mud system, wt 9.1, vis 29-32. Test Yeso formation. Run 5-1/2" casing & cement to surface. Note: On production string, a caliper will be run, COG will attempt to circulate.

**Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
DoubleRam	2000	2000	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .	<b>OIL CONSERVATION DIVISION</b>
Printed Name: Electronically filed by Diane Kuykendall	Approved By: Jacqueta Reeves
Title: Regulatory Analyst	Title: District Geologist
Email Address: dkuykendall@conchoresources.com	Approved Date: 5/12/2010   Expiration Date: 5/12/2012
Date: 3/16/2010   Phone: 432-683-7443	Conditions of Approval Attached

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(505) 393-6161 Fax:(505) 393-0720

**District II**  
 1301 W. Grand Ave., Artesia, NM 88210  
 Phone:(505) 748-1283 Fax:(505) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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Form C-102  
 Permit 109926

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-015-37702	2. Pool Code 96718	3. Pool Name LOCO HILLS; GLORIETA-YESO
4. Property Code 302502	5. Property Name HARPER STATE	6. Well No. 018
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3669

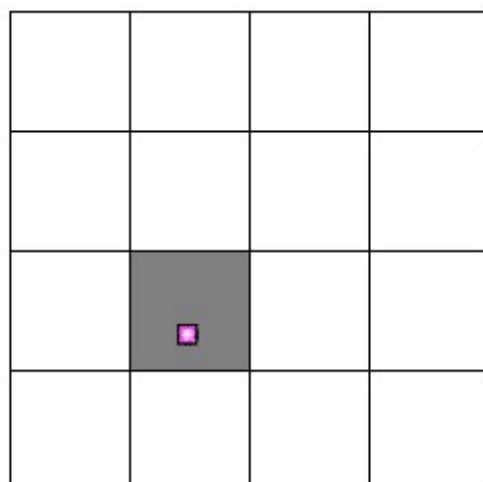
**10. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
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**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 40.00		13. Joint or Infill		14. Consolidation Code		15. Order 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**



**OPERATOR CERTIFICATION**

*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.*

E-Signed By: Diane Kuykendall  
 Title: Regulatory Analyst  
 Date: 3/16/2010

**SURVEYOR 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.*

Surveyed By: Ronald Eidson  
 Date of Survey: 2/25/2010  
 Certificate Number: 3239

## Permit Comments

Operator: COG OPERATING LLC , 229137

Well: HARPER STATE #018

API: 30-015-37702

Created By	Comment	Comment Date
rodan	H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required.	2/24/2010

# Permit Conditions of Approval

**Operator:** COG OPERATING LLC , 229137

**Well:** HARPER STATE #018

**API:** 30-015-37702

OCD Reviewer	Condition
JVREEVES	BOP test must be performed by third party, per district supervisor.
JVREEVES	Please refer to Rule 19.15.15.9A.