

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 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

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

Form C-101  
August 1, 2011  
Permit 161819

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

1. Operator Name and Address COG OPERATING LLC One Concho Center Midland, TX 79701		2. OGRID Number 229137
4. Property Code 310251		3. API Number 30-015-41038
5. Property Name LIVINGSTON RIDGE 36 STATE		6. Well No. 002H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
P	36	22S	31E	P	190	S	330	E	EDDY

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
A	36	22S	31E	A	330	N	380	E	Eddy

**9. Pool Information**

LIVINGSTON RIDGE BONE SPRING	39350
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3488
16. Multiple N	17. Proposed Depth 14779	18. Formation Bone Spring	19. Contractor	20. Spud Date
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

**21. 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	54.5	750	540	
Int1	17.25	9.625	36	4520	1400	
Prod	7.875	5.5	17	14779	1585	6500

**Casing/Cement Program: Additional Comments**

Drill 17-1/2" hole to ~750' w/ fresh water spud mud. Run 13-3/8" 54.5# J55 STC casing to TD and cement to surface in one stage. Will use 1" tubing and Class C w/ 2% CaCl2 to cement to surface, if necessary. Drill 12-1/4" hole to ~4520' with saturated brine water. Run 9-5/8" 36#J55 and 40#N80 BTC casing to TD and cement to surface in one stage. Drill 7-7/8" vertical hole, curve, and lateral to 14779' with cut brine. Run 5-1/2" 17# P110 LTC casing to TD with a DV tool at ~ 6500'. Circulate cement on both stages.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
DoubleRam	3000	3000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. Signature:	<b>OIL CONSERVATION DIVISION</b> Approved By: Randy Dade
Printed Name: Electronically filed by Diane Kuykendall	Title: District Supervisor
Title: Production Reporting Mgr	Approved Date: 2/4/2013   Expiration Date: 2/4/2015
Email Address: dkuykendall@conchoresources.com	
Date: 2/1/2013   Phone: 432-683-7443	Conditions of Approval Attached

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Form C-102  
August 1, 2011  
Permit 161819

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-015-41038	2. Pool Code 39350	3. Pool Name LIVINGSTON RIDGE;BONE SPRING
4. Property Code 310251	5. Property Name LIVINGSTON RIDGE 36 STATE	6. Well No. 002H
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3488

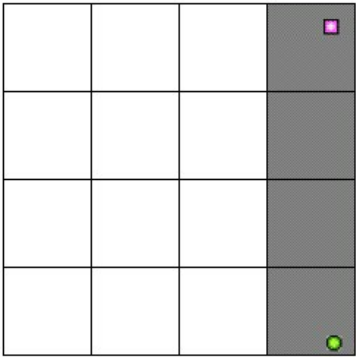
**10. Surface Location**

UL - Lot P	Section 36	Township 22S	Range 31E	Lot Idn A	Feet From 190	N/S Line S	Feet From 330	E/W Line E	County EDDY
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**11. Bottom Hole Location If Different From Surface**

UL - Lot A	Section 36	Township 22S	Range 31E	Lot Idn A	Feet From 330	N/S Line N	Feet From 380	E/W Line E	County EDDY
12. Dedicated Acres 160.00		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**

	<p style="text-align: center;"><b>OPERATOR CERTIFICATION</b></p> <p><i>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.</i></p> <p>E-Signed By: Diane Kuykendall Title: Production Reporting Mgr Date: 2/1/2013</p> <hr/> <p style="text-align: center;"><b>SURVEYOR CERTIFICATION</b></p> <p><i>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.</i></p> <p>Surveyed By: chad harcrow Date of Survey: 11/9/2012 Certificate Number: 17777</p>
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## Permit Comments

Operator: COG OPERATING LLC , 229137  
Well: LIVINGSTON RIDGE 36 STATE #002H  
API: 30-015-41038

Created By	Comment	Comment Date
mreyes1	Drill 17-1/2" hole to ~750' w/ fresh water spud mud. Run 13-3/8" 54.5# J55 STC casing to TD and cement to surface in one stage. Will use 1" tubing and Class C w/ 2% CaCl2 to cement to surface, if necessary. Drill 12-1/4" hole to ~4520' with saturated brine water. Run 9-5/8" 36#/J55 and 40#/N80 BTC casing to TD and cement to surface in one stage. Drill 7-7/8" vertical hole, curve, and lateral to 14779' with cut brine. Run 5-1/2" 17# P110 LTC casing to TD with a DV tool at ~ 6500'. Circulate cement on both stages.	2/1/2013
CSHAPARD	Land s/S	2/4/2013

## Permit Conditions of Approval

**Operator:** COG OPERATING LLC , 229137

**Well:** LIVINGSTON RIDGE 36 STATE #002H

**API:** 30-015-41038

OCD Reviewer	Condition
CSHAPARD	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string