

**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 161730

**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
		3. API Number 30-025-40969
4. Property Code 39678	5. Property Name OSPREY 20 STATE COM	6. Well No. 003H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
K	20	21S	34E	K	2590	S	1680	W	LEA

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
N	29	21S	34E	N	330	S	1980	W	Lea

**9. Pool Information**

WC-025 G-07 S213430M;BONE SPRING	97962
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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 3714
16. Multiple N	17. Proposed Depth 19311	18. Formation Bone Spring	19. Contractor	20. Spud Date 5/5/2013
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	1980	1155	
Int1	12.25	9.625	36	5800	610	
Prod	7.875	5.5	17	19311	2330	5500

**Casing/Cement Program: Additional Comments**

Drill 17-1/2" hole to ~1980' 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 ~5800' with saturated brine water. If losses occur in the Reef, will switch to fresh water to interval TD. Run 9-5/8" 36# J55 & 40# N80 BTC casing to TD with a DV tool placed ~100' above the Reef. Plan to circulate cement on both stages. Drill 7-7/8" pilot hole to 12250', log and plug back with cement plug f/ 11250' - 12250'. Drill 7-7/8" curve, and lateral to 19311' with cut brine. Run 5-1/2" 17# P110 LTC casing to TD and cement to 5500' (300' overlap) surface in one stage.

**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: Printed Name: Electronically filed by Diane Kuykendall Title: Production Reporting Mgr Email Address: dkuykendall@conchoresources.com Date: 1/31/2013	<b>OIL CONSERVATION DIVISION</b> Approved By: Paul Kautz Title: Geologist Approved Date: 2/1/2013   Expiration Date: 2/1/2015 Conditions of Approval Attached
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**Santa Fe, NM 87505**

Form C-102  
 August 1, 2011  
 Permit 161730

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-025-40969	2. Pool Code 97962	3. Pool Name WC-025 G-07 S213430M;BONE SPRING
4. Property Code 39678	5. Property Name OSPREY 20 STATE COM	6. Well No. 003H
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3714

**10. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
K	20	21S	34E		2590	S	1680	W	LEA

**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
N	29	21S	34E	N	330	S	1980	W	LEA
12. Dedicated Acres 240.00		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: 1/31/2013</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: 12/20/2012        Certificate Number: 17777</p>
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## Permit Comments

Operator: COG OPERATING LLC , 229137

Well: OSPREY 20 STATE COM #003H

API: 30-025-40969

Created By	Comment	Comment Date
mreyes1	OIL: COG Operating has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore we do not believe that an H2S Contingency Plan would be necessary.	1/31/2013
pkautz	Land s/S	2/1/2013
CHERRERA	OCD RECEIVED FORM 144 CLEZ. OCD PERMIT # P1-05702	2/1/2013

## Permit Conditions of Approval

Operator: COG OPERATING LLC , 229137

Well: OSPREY 20 STATE COM #003H

API: 30-025-40969

OCD Reviewer	Condition
pkautz	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