

**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 262866

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

1. Operator Name and Address COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701		2. OGRID Number 229137
		3. API Number 30-025-45599
4. Property Code 39741	5. Property Name BOONE 16 STATE COM	6. Well No. 004H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	21	21S	33E	D	400	N	660	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
D	9	21S	33E	D	50	N	660	W	Lea

**9. Pool Information**

WC-025 G-08 S213304D;BONE SPRING	97895
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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 3741
16. Multiple N	17. Proposed Depth 22479	18. Formation 3rd Bone Spring Sand	19. Contractor	20. Spud Date 5/1/2019
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	20	16	75	1975	1700	0
Int1	14.75	10.75	45.5	5700	1775	0
Int2	9.875	7.625	29.7	10950	1100	0
Prod	6.75	5.5	23	22479	1250	0

**Casing/Cement Program: Additional Comments**

COG proposes to drill a 20" hole to 1975' w/ fresh water spud mud. Set 16" casing and cement to surface in one stage. Drill a 14-3/4" hole to 5700' w/ brine water mud system. Set 10-3/4" casing and cement to surface in two stages. Drill an 9-7/8" hole to 10,950' w/ cut brine water mud system. Set 7-5/8" casing to TD and cement to surface in one stage. Drill a 6-3/4" curve and lateral to 22,479' with OBM. Set 5-1/2" 23# CYP-110 casing at TD and cement to surface in one stage.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. <b>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.</b>  Signature:	<b>OIL CONSERVATION DIVISION</b>
Printed Name: Electronically filed by Diane Kuykendall	Approved By: Paul F Kautz
Title: Production Reporting Mgr	Title: Geologist
Email Address: dkuykendall@concho.com	Approved Date: 2/15/2019      Expiration Date: 2/15/2021
Date: 1/31/2019      Phone: 432-683-7443	Conditions of Approval Attached

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**Santa Fe, NM 87505**

Form C-102  
August 1, 2011  
Permit 262866

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-025-45599	2. Pool Code 97895	3. Pool Name WC-025 G-08 S213304D;BONE SPRING
4. Property Code 39741	5. Property Name BOONE 16 STATE COM	6. Well No. 004H
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3741

**10. Surface Location**

UL - Lot D	Section 21	Township 21S	Range 33E	Lot Idn D	Feet From 400	N/S Line N	Feet From 660	E/W Line W	County Lea
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**11. Bottom Hole Location If Different From Surface**

UL - Lot D	Section 9	Township 21S	Range 33E	Lot Idn D	Feet From 50	N/S Line N	Feet From 660	E/W Line W	County Lea
12. Dedicated Acres 320.00	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><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</p> <p>Title:                Production Reporting Mgr</p> <p>Date:                1/31/2019</p>
	<p><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</p> <p>Date of Survey:     12/11/2018</p> <p>Certificate Number: 17777</p>

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Santa Fe, NM 87505

Form APD Comments

Permit 262866

PERMIT COMMENTS

Operator Name and Address:		API Number:
COG OPERATING LLC [229137]		30-025-45599
600 W Illinois Ave		Well:
Midland, TX 79701		BOONE 16 STATE COM #004H

Created By	Comment	Comment Date
rodomb	H2S concentrations of wells in this area from surface to TD are low enough that a contingency plan is not required.	1/29/2019
pkautz	Potash letters sent to BLM & SLO	2/8/2019

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Form APD Conditions

Permit 262866

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701	API Number: 30-025-45599
	Well: BOONE 16 STATE COM #004H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	1) SURFACE & INTERMEDIATE1 CASING Cement must circulate to surface 2) INTERMEDIATE2 CASING Cement must tie back into intermediate1 casing - 3) PRODUCTION CASING Cement must tie back into intermediate2 casing
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	1) The Operator is to notify NMOCD by sundry (Form C103) within ten (10) days of the well being spud 2) Drilling Sundries Form C103 (Casing and Cement test are to be submitted within 10 days 3) Completion Reports & Logs are to be submitted within 45 days 4) Deviation / Directional Drill Survey are to be filed with or prior to C104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C103 before expiration date. After expiration date or after a 1 year extension must submit new APD.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 5753703186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or production Casing Stage must be a minimum of 50 feet below previous casing shoe
pkautz	Potash Area - 1) Salt Protection String - If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or other survey and additional cementing shall be done until the cement is brought to the surface. 2) Four String Casing Program – In accordance with R-111-P surface string, salt protection string and intermediate string shall be cemented to surface. Production string must tie back into the intermediate string