

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(505) 393-8161 Fax:(505) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(505) 748-1283 Fax:(505) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-8178 Fax:(505) 334-8170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3482

**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 232599

**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 30-025-43655
4. Property Code 315647	5. Property Name VAST STATE	6. Well No. 020H

**7. Surface Location**

UL - Lot P	Section 17	Township 26S	Range 33E	Lot Idn P	Feet From 410	N/S Line S	Feet From 575	E/W Line E	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot A	Section 17	Township 26S	Range 33E	Lot Idn A	Feet From 200	N/S Line N	Feet From 330	E/W Line E	County Lea
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**9. Pool Information**

WC-025 G-09 S263327G;UPPER WOLFCAMP	98097
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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 3254
16. Multiple N	17. Proposed Depth 17114	18. Formation Wolfcamp	19. Contractor	20. Spud Date 3/8/2017
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	13.5	10.75	45.5	1025	500	
Int1	9.875	7.625	29.7	11750	1100	
Prod	6.75	5.5	23	17114	900	11000

**Casing/Cement Program: Additional Comments**

Drill 13-1/2" hole to ~1025' w/ fresh water spud mud. Run 10-3/4" 45.5# J55-STC casing to TD and cement to surface in one stage. Drill 9-7/8" hole to ~11,750' with diesel brine emulsion. Run 7-5/8" 29.7# P110 casing to TD and cement to surface in one stage. Drill 6 3/4" pilot hole to ~13,500' with cut brine. Will Cement plug back pilot hole and set cement plug for kick off. Drill 6-3/4" vertical hole, curve & lateral to 17,041' with OBM. Run 5-1/2" 23# P110 LTC by 5" 18# P110 LTC casing to TD and cement to 11,000' in one stage.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	Cameron

<p>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.</p> <p>Signature: _____</p> <p>Printed Name: Electronically filed by Diane Kuykendall</p> <p>Title: Production Reporting Mgr</p> <p>Email Address: production@concho.com</p> <p>Date: 3/1/2017</p>	<p><b>OIL CONSERVATION DIVISION</b></p> <p>Approved By: Paul Kautz</p> <p>Title: Geologist</p> <p>Approved Date: 3/2/2017</p> <p>Expiration Date: 3/2/2019</p> <p>Conditions of Approval Attached</p>
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**Santa Fe, NM 87505**

Form C-102  
August 1, 2011  
Permit 232599

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-025-43655	2. Pool Code 98097	3. Pool Name WC-025 G-09 S263327G;UPPER WOLFCAMP
4. Property Code 315647	5. Property Name VAST STATE	6. Well No. 020H
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3254

**10. Surface Location**

UL - Lot P	Section 17	Township 26S	Range 33E	Lot Idn P	Feet From 410	N/S Line S	Feet From 575	E/W Line E	County Lea
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**11. Bottom Hole Location If Different From Surface**

UL - Lot A	Section 17	Township 26S	Range 33E	Lot Idn A	Feet From 200	N/S Line N	Feet From 330	E/W Line E	County Lea
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**

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Form APD Comments

Permit 232599

**PERMIT COMMENTS**

Operator Name and Address: COG OPERATING LLC [229137] One Concho Center Midland, TX 79701		API Number: 30-025-43655
		Well: VAST STATE #020H
Created By	Comment	Comment Date
mreyes3	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.	3/1/2017

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Form APD Conditions

Permit 232599

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: COG OPERATING LLC [229137] One Concho Center Midland, TX 79701	API Number: 30-025-43655
	Well: VAST STATE #020H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
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
pkautz	If using a pit for drilling and completion operations, must have an approved pit from prior to spudding the well.
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	Only Fresh Water and Air are Valid Drilling Fluids for Surface Casing
pkautz	Operator shall notify appropriate District office when setting conductor pipe.
pkautz	The Operator is to notify NMOCDD by sundry (Form C-103) within ten (10) days of spudding a well.
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 C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD.
pkautz	If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Must notify OCD Hobbs Office if lost circulation is encountered at 575-370-3186
pkautz	Must notify OCD Hobbs Office of any water flows in the Castile Formation at 575-370-3186. Report depth and flow rate
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 575-370-3186 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	Submit Gas Capture Plan form prior to spud