

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 230909

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 30-025-43551
4. Property Code 315647	5. Property Name VAST STATE	6. Well No. 022H

7. Surface Location

UL - Lot P	Section 17	Township 26S	Range 33E	Lot Idn P	Feet From 210	N/S Line S	Feet From 1165	E/W Line E	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	-------------------	---------------	---------------

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 990	E/W Line E	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	------------------	---------------	---------------

9. Pool Information

WC-025 G-09 S263327G;UPPER WOLFCAMP	98097
-------------------------------------	-------

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3260
16. Multiple N	17. Proposed Depth 17086	18. Formation Wolfcamp	19. Contractor	20. Spud Date 1/31/2017
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	700	
Int1	9.875	7.625	29.7	11750	1000	
Prod	6.75	5.5	23	17086	1350	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" vertical hole, curve & lateral to 17,086' 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	3000	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: 1/18/2017</p>	<p>OIL CONSERVATION DIVISION</p> <p>Approved By: Paul Kautz</p> <p>Title: Geologist</p> <p>Approved Date: 1/21/2017</p> <p>Expiration Date: 1/21/2019</p> <p>Conditions of Approval Attached</p>
---	---

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-8161 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) 334-8178 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-102
August 1, 2011
Permit 230969

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-43551	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. 022H
7. OGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3260

10. Surface Location

UL - Lot P	Section 17	Township 26S	Range 33E	Lot Idn P	Feet From 210	N/S Line S	Feet From 1165	E/W Line E	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	-------------------	---------------	---------------

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 990	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

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px; background-color: #cccccc; text-align: center;">■</td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px; background-color: #cccccc;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px; background-color: #cccccc;"></td></tr> <tr><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px;"></td><td style="height: 30px; background-color: #cccccc; text-align: center;">●</td></tr> </table>				■												●	<p style="text-align: center;">OPERATOR CERTIFICATION</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: 1/18/2017</p> <hr/> <p style="text-align: center;">SURVEYOR CERTIFICATION</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: 12/20/2016 Certificate Number: 17777</p>
			■														
			●														

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 APD Comments
 Permit 230969

PERMIT COMMENTS

Operator Name and Address: COG OPERATING LLC [229137] One Concho Center Midland, TX 79701		API Number: 30-025-43551
		Well: VAST STATE #022H
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.	1/18/2017

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-8161 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) 334-8178 Fax:(505) 334-6170
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 APD Conditions

Permit 230969

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG OPERATING LLC [229137] One Concho Center Midland, TX 79701	API Number: 30-025-43551
	Well: VAST STATE #022H

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	Must notify OCD Hobbs Office if lost circulation is encountered at 575-370-3186
pkautz	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	Must submit Gas Capture Plan