

**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 Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-101  
Revised July 18, 2013

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

<b>1. Operator Name and Address</b> COG Operating LLC 2208 West Main Street Artesia, NM 88210		<b>2. OGRID Number</b> 229137 <b>API Number</b> 70-025-42428
<b>3. Property Code</b> 40318	<b>4. Property Name</b> Merlin State Com	<b>5. Well No</b> 3H

**6. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
N	29	21S	34E		810	South	1920	West	Lea

**7. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
N	32	21S	34E		330	South	1980	West	Lea

**8. Pool Information**

<b>Pool Name</b> WC-025 G-07 S213430M; Bone Spring	<b>Pool Code</b> 97962
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**Additional Well Information**

<b>11. Work Type</b> New Well	<b>12. Well Type</b> Oil	<b>13. Cable/Rotary</b>	<b>14. Lease Type</b> State	<b>15. Ground Level Elevation</b> 3718.4
<b>16. Multiple</b> N	<b>17. Proposed Depth</b> 16480'	<b>18. Formation</b> Bone Spring	<b>19. Contractor</b>	<b>20. Spud Date</b> 2/12/2015
<b>Depth to Ground water</b>		<b>Distance from nearest fresh water well</b>		<b>Distance to nearest surface water</b>

☒ 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
Surface	17.5	13.375	54.5	1900	1250	
Intmid	12.25	9.625	40	5600	1500	
Production	8.75	5.5	17	16480	2800	5000

**Casing/Cement Program: Additional Comments**

Plan to drill a 17-1/2" hole to 1,900' with Fresh Water. Run 13-3/8", 54.5#, J-55 csg and cmt to surface. Drill 12-1/4" hole to 5,600' with Brine, and run 9-5/8", 40#, J-55/L80 and cement to surface in 2 stages. Drill 8-3/4" curve and lateral with cut brine to approx 16,480' MD. Run 5-1/2", 17#, P-110 csg and cement to 5,000'.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

<b>23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.</b> <b>I further certify that 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> <b>Signature:</b> <i>Mayte Reyes</i> <b>Printed name:</b> Mayte Reyes <b>Title:</b> Regulatory Analyst <b>E-mail Address:</b> mreyes@concho.com <b>Date:</b> 2/5/2015	<div style="text-align: center;"><b>OIL CONSERVATION DIVISION</b></div> <b>Approved By:</b> <i>[Signature]</i> <b>Title:</b> <b>Approved Date:</b> 02/05/15 <b>Expiration Date:</b> 02/05/17 <b>Conditions of Approval Attached</b>
<b>Phone:</b> 575-748-6945	

**See Attached *7***  
**Conditions of Approval**

FEB 06 2015

### Merlin State 3H

	Hole Size	Casing	Wt	Depth	Cmt	TOC
Surface	17.5	13.375	54.5	1,900'	1250	0
Intrmd	12.25	9.625	40	5,600'	1500	0
Prod	8.75	5.5	17	16,480'	2800	5,000'

Plan to drill a 17-1/2" hole to 1,900' with Fresh Water. Run 13-3/8", 54.5#, J-55 csg and cmt to surface. Drill 12-1/4" hole to 5,600' with Brine, and run 9-5/8", 40#, J-55/L80 and cement to surface in 2 stages. Drill 8-3/4" curve and lateral with cut brine to approx 16,480' MD. Run 5-1/2", 17#, P-110 csg and cement to 5,000'.

### Well Control

Type	Pressure	Test	Manufacture
Double Ram	3000	3000	Cameron

# CONDITIONS OF APPROVAL

API #	Operator	Well name & Number
30-025-42428	COG Operating LLC	Merlin State Com # 3H

Applicable conditions of approval marked with XXXXXX

## Administrative Orders Required

XXXXXXX	Will require a directional drill survey with the C-104
XXXXXXXX	If using a pit for drilling and completion operations, must have an approved pit form prior to spudding the well

Other wells

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## Drilling

XXXXXXX	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

## Casing

XXXXXXX	SURFACE & INTERMEDIATE(1) CASING - Cement must circulate to surface --
XXXXXXX	PRODUCTION CASING - Cement must tie back into intermediate casing --
XXXXXXX	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
	South Area
XXXXXXX	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water