

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
1900 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-104
Revised July 18, 2013

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

¹ Operator Name and Address COG Operating LLC 2208 West Main Street Artesia, NM 88210		² OGRID Number 229137 ³ API Number 70-025-72351
⁴ Property Code 39678	⁵ Property Name Osprey 20 State Com	⁶ Well No 8H

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	20	21S	34E		2450	South	280	West	Lea

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	29	21S	34E		330	South	380	West	Lea

⁹ Pool Information

¹⁰ Pool Name WC-025 G07 S213430M: Bone Spring	¹¹ Pool Code 97962
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Additional Well Information

¹² Work Type New Well	¹³ Well Type Oil	¹⁴ Cable/Rotary 	¹⁵ Lease Type State	¹⁶ Ground Level Elevation 3741.5'
¹⁷ Multiple N	¹⁸ Proposed Depth 21780'	¹⁹ Formation Bone Spring	²⁰ Contractor 	²¹ Spud Date 12/30/2014
²² Depth to Ground water		²³ Distance from nearest fresh water well		²⁴ Distance to nearest surface water

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

²⁵ 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	1880'	1200	
Intmid	12.25	9.625	40	5860'	1450	
Production	8.75	5.5	17	21780'	3500	5680

Casing/Cement Program: Additional Comments

Plan to drill a 17-1/2" hole to 1880' with Fresh Water. Run 13-3/8", 54.5#, J-55 csg and cmt to surface. Drill 12-1/4" hole to 5860' with Brine, and run 9-5/8", 40# J55 and cement to surface. Drill 8-3/4" vertical & curve. Drill a 8-3/4" lateral with cut brine to approximately 21,780' MD. Run 5-1/2", 17#, P-110 csg and cement to 5680'.

²⁶ Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Horn

²⁷ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. 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. Signature: <i>Mayte Reyes</i> Printed name: Mayte Reyes Title: Regulatory Analyst E-mail Address: mreyes1@concho.com Date: 12/22/2014	<p style="text-align: center;">OIL CONSERVATION DIVISION</p> Approved By: <i>[Signature]</i> Title: Petroleum Engineer Approved Date: 12/22/14 Expiration Date: 12/22/16 Conditions of Approval Attached
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DEC 22 2014

Osprey 20 State Com #8H

	Hole Size	Casing	Wt	Depth	Cmt	TOC
Surface	17.5	13.375	54.5	1880'	1200	0
Intrmd	12.25	9.625	40	5860'	1450	0
Prod	8.75	5.5	17	21,780'	3500	5680'

Plan to drill a 17-1/2" hole to 1880' with Fresh Water. Run 13-3/8", 54.5#, J-55 csg and cmt to surface. Drill 12-1/4" hole to 5860' with Brine, and run 9-5/8", 40# J55 and cement to surface. Drill 8-3/4" vertical & curve. Drill a 8-3/4" lateral with cut brine to approximately 21,780' MD. Run 5-1/2", 17#, P-110 csg and cement to 5680'.

Well Control

Type	Pressure	Test	Manufacture
Double Ram	3000	3000	Horn

CONDITIONS OF APPROVAL

API #	Operator	Well name & Number
30-025-42351	COG Operating LLC	Osprey 20 State Com # 8H

Applicable conditions of approval marked with XXXXXX

Administrative Orders Required

XXXXXXX	Will require a directional drill survey with the C-104
XXXXXXX	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