

**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**

<sup>1</sup> Operator Name and Address <b>COG Operating LLC</b> <b>2208 West Main Street</b> <b>Artesia, NM 88210</b>	<sup>2</sup> OGRID Number <b>229137</b> <sup>3</sup> APN Number <b>30-015-12453</b>
<sup>4</sup> Property Code <b>308619</b>	<sup>5</sup> Property Name <b>Graham Nash State Com</b> <sup>6</sup> Well No <b>5H</b>

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
<b>X</b>	33	26S	28E	<b>X</b>	280	South	760	East	Eddy

**\* Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
<b>A</b>	28	26S	28E		330	North	660	East	Eddy

**9. Pool Information**

Pool Name	Pool Code
<b>Hay Hollow; Bone Spring</b>	<b>30215</b>

**Additional Well Information**

<sup>11</sup> Work Type <b>New Well</b>	<sup>12</sup> Well Type <b>Oil</b>	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type <b>State</b>	<sup>15</sup> Ground Level Elevation <b>3057.5'</b>
<sup>16</sup> Multiple <b>N</b>	<sup>17</sup> Proposed Depth <b>14657'</b>	<sup>18</sup> Formation <b>Bone Spring</b>	<sup>19</sup> Contractor	<sup>20</sup> Spud Date <b>6/30/2014</b>
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
Surface	17.5	13.375	48	350'	350	
Intemd	12.25	9.625	36	2560'	740	
Production	8.75	5.5	17	14657'	2830	2260

**Casing/Cement Program: Additional Comments**

Drill 17-1/2" hole to ~350' w/ fresh water spud mud. Run 13-3/8" 48# H40 STC casing to TD and cement to surface in one stage. Will use 1" tubing and Class C w/ 2% CaCl2 to cement to surface, if necessary.

Drill 12-1/4" hole to ~2560' with saturated brine water. Run 9-5/8" 36# J55 LTC casing to TD and cement to surface in one stage.

Drill 8-3/4" vertical hole, curve and lateral to 14657' with cut brine. Run 5-1/2" 17# P110 Tenaris TXP BTC casing to TD and cement in one stage bringing TOC to 2260' (300' overlap).

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

<sup>23</sup> 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 ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.  
Signature: *Mayte Reyes*

Printed name: **Mayte Reyes**

Title: **Regulatory Analyst**

E-mail Address: **mreyes1@concho.com**

Date: **6/23/2014**

Phone: **575-748-6945**

**OIL CONSERVATION DIVISION**

Approved By: *T. C. Shepard*

Title: **"Geologist"**

Approved Date: **6-23-2014** Expiration Date: **6-23-2016**

Conditions of Approval Attached

DISTRICT I  
1625 N. FRENCH DR., HOBBES, NM 88240  
Phone: (575) 393-6101 Fax: (575) 393-0720

DISTRICT II  
811 S. FIRST ST., ARTESIA, NM 88210  
Phone: (575) 748-1883 Fax: (575) 748-0720

DISTRICT III  
1000 RIO BRAZOS RD., AZTEC, NM 87410  
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DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505  
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State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number 30-015- <b>42453</b>	Pool Code 30215	Pool Name Hay Hollow; Bone Spring
Property Code <b>308619</b>	Property Name GRAHAM NASH STATE	Well Number 5H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3057.5

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	33	26-S	28-E		280	SOUTH	760	EAST	EDDY

**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	26-S	28-E		330	NORTH	660	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
223.73			

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

	<b>OPERATOR CERTIFICATION</b> I hereby certify that the information 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 or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division. <i>Melanie J Parker</i> 6/23/14 Signature _____ Date _____ Printed Name mparker@concho.com E-mail Address
	<b>SURVEYOR CERTIFICATION</b> 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. MARCH 8, 2014 Date of Survey Signature & Seal of Professional Surveyor  Certificate No. CHAD HARCROW 17777 W.O. # 14-153 DRAWN BY: VD