

District I - (575) 393-6161

1625 N French Dr., Hobbs, NM 88240

District II - (575) 748-1283

811 S First St., Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Rd., Aztec, NM 87410

District IV - (505) 476-3460

1220 S St Francis Dr., Santa Fe, NM

87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr
Santa Fe, NM 87505

Form C-103

Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)		WELL API NO. 30-015-40442
1. Type of Well. Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator COG Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator One Concho Center - 600 W Illinois Ave Midland, TX 79701		7. Lease Name or Unit Agreement Name Hogan State Com
4. Well Location Unit Letter I : 1700 feet from the SOUTH line and 330 feet from the EAST line Section 2 Township 17S Range 29E NMPM County EDDY		8. Well Number 2H
11. Elevation (Show whether DR, RKB, RT, GR, etc) 3665'		9. OGRID Number 229137
		10. Pool name or Wildcat Empire; Glorieta Yeso 96210

12 Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
 DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
 COMMENCE DRILLING OPNS ☐ P AND A ☐
 CASING/CEMENT JOB ☐

OTHER **Change TVD** ☒

OTHER ☐

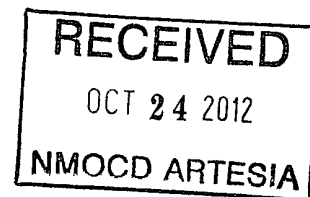
13 Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 19 15 7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG respectfully requests to change the TVD of this well.

From: 4799'

To: 5200'

Attached is the revised Directional Plan.



Spud Date.

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE TITLE **Permitting Tech** DATE **10/23/2012**

Type or print name **Kelly J. Holly** E-mail address **kholly@concho.com** PHONE **432-685-4384**
For State Use Only

APPROVED BY: TITLE **Geologist** DATE **10/24/2012**
 Conditions of Approval (if any):



COG Operating LLC

Eddy County, NM (NAN27 NME)

Hogan State Com #2H

OH

Plan #3 - 8-3/4" Hole

Surface: 1700' FSL, 330' FEL, Sec 2, T17S, R29E, Unit I

BHL: 1650' FSL, 330' FWL, Sec 2, T17S, R29E, Unit L

Standard Planning Report

22 October, 2012





Scientific Drilling
Planning Report



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3665 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3665 00usft
Site:	Hogan State Com	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3 - 8-3/4" Hole		

Project:	Eddy County, NM (NAN27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site:	Hogan State Com		
Site Position:	Northings:	677,356.90 usft	Latitude: 32° 51' 42.435 N
From: Map	Easting:	590,869.30 usft	Longitude: 104° 2' 14.643 W
Position Uncertainty:	0 00 usft	Slot Radius: 13-3/16"	Grid Convergence: 0 16 °

Well:	#2H		
Well Position	+N/-S	-335.23 usft	Northings: 677,021.70 usft
	+E/-W	0 20 usft	Easting: 590,869.50 usft
Position Uncertainty	0 00 usft	Wellhead Elevation:	Ground Level: 3,665.00 usft

Wellbore:	OH		
Magnetics	Model Name	Sample Date	Declination
	BGGM2012	10/22/2012	7 79
			Dip Angle
			60 63
			Field Strength
			48,796

Design:	Plan #3 - 8-3/4" Hole		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 00	0 00	0 00
			Direction
			(°)
			269 47

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
4,722.61	0 00	0 00	4,722.61	0 00	0 00	0 00	0 00	0 00	0 00	
5,480.94	91 00	269 47	5,200.00	-4 52	-485 78	12 00	12 00	0 00	269 47	
9,630.35	91 00	269 47	5,127.58	-43 10	-4,634.38	0 00	0 00	0 00	0 00	PBHL



Scientific Drilling
Planning Report



Database: EDM 5000 1- Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Hogan State Corn
Well: #2H
Wellbore: OH
Design: Plan #3 - 8-3/4" Hole

Local Co-ordinate Reference
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method

Well #2H:
GL @ 3665 00usft
GL @ 3665 00usft
Grid:
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
4,722 61	0 00	0 00	4,722 61	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 12.00									
4,800 00	9 29	269 47	4,799 66	-0 06	-6 26	6 26	12 00	12 00	0 00
4,900 00	21 29	269 47	4,895 95	-0 30	-32 58	32 58	12 00	12 00	0 00
5,000 00	33 29	269 47	4,984 66	-0 73	-78 34	78 34	12 00	12 00	0 00
5,100 00	45 29	269 47	5,061 91	-1 32	-141 54	141 54	12 00	12 00	0 00
5,200 00	57 29	269 47	5,124 34	-2 04	-219 42	219 43	12 00	12 00	0 00
5,300 00	69 29	269 47	5,169 21	-2 87	-308 58	308 59	12 00	12 00	0 00
5,400 00	81 29	269 47	5,194 56	-3 77	-405 12	405 14	12 00	12 00	0 00
5,480 94	91 00	269 47	5,200 00	-4 52	-485 78	485 80	12 00	12 00	0 00
EOC Start 4149.41 hold at 5480.94 MD									
5,500 00	91 00	269 47	5,199 66	-4 70	-504 83	504 86	0 00	0 00	0 00
5,600 00	91 00	269 47	5,197 92	-5 63	-604 82	604 84	0 00	0 00	0 00
5,700 00	91 00	269 47	5,196 17	-6 56	-704 80	704 83	0 00	0 00	0 00
5,800 00	91 00	269 47	5,194 43	-7 49	-804 78	804 81	0 00	0 00	0 00
5,900 00	91 00	269 47	5,192 68	-8 41	-904 76	904 80	0 00	0 00	0 00
6,000 00	91 00	269 47	5,190 94	-9 34	-1,004 74	1,004 78	0 00	0 00	0 00
6,100 00	91 00	269 47	5,189 19	-10 27	-1,104 72	1,104 77	0 00	0 00	0 00
6,200 00	91 00	269 47	5,187 45	-11 20	-1,204 70	1,204 75	0 00	0 00	0 00
6,300 00	91 00	269 47	5,185 70	-12 13	-1,304 68	1,304 73	0 00	0 00	0 00
6,400 00	91 00	269 47	5,183 96	-13 06	-1,404 66	1,404 72	0 00	0 00	0 00
6,500 00	91 00	269 47	5,182 21	-13 99	-1,504 64	1,504 70	0 00	0 00	0 00
6,600 00	91 00	269 47	5,180 47	-14 92	-1,604 62	1,604 69	0 00	0 00	0 00
6,700 00	91 00	269 47	5,178 72	-15 85	-1,704 60	1,704 67	0 00	0 00	0 00
6,800 00	91 00	269 47	5,176 98	-16 78	-1,804 58	1,804 66	0 00	0 00	0 00
6,900 00	91 00	269 47	5,175 23	-17 71	-1,904 56	1,904 64	0 00	0 00	0 00
7,000 00	91 00	269 47	5,173 49	-18 64	-2,004 54	2,004 63	0 00	0 00	0 00
7,100 00	91 00	269 47	5,171 74	-19 57	-2,104 52	2,104 61	0 00	0 00	0 00
7,200 00	91 00	269 47	5,170 00	-20 50	-2,204 50	2,204 60	0 00	0 00	0 00
7,300 00	91 00	269 47	5,168 25	-21 43	-2,304 48	2,304 58	0 00	0 00	0 00
7,400 00	91 00	269 47	5,166 51	-22 36	-2,404 46	2,404 57	0 00	0 00	0 00
7,500 00	91 00	269 47	5,164 76	-23 29	-2,504 44	2,504 55	0 00	0 00	0 00
7,600 00	91 00	269 47	5,163 01	-24 22	-2,604 42	2,604 54	0 00	0 00	0 00
7,700 00	91 00	269 47	5,161 27	-25 15	-2,704 40	2,704 52	0 00	0 00	0 00
7,800 00	91 00	269 47	5,159 52	-26 08	-2,804 38	2,804 51	0 00	0 00	0 00
7,900 00	91 00	269 47	5,157 78	-27 01	-2,904 37	2,904 49	0 00	0 00	0 00
8,000 00	91 00	269 47	5,156 03	-27 94	-3,004 35	3,004 48	0 00	0 00	0 00
8,100 00	91 00	269 47	5,154 29	-28 87	-3,104 33	3,104 46	0 00	0 00	0 00
8,200 00	91 00	269 47	5,152 54	-29 80	-3,204 31	3,204 45	0 00	0 00	0 00
8,300 00	91 00	269 47	5,150 80	-30 73	-3,304 29	3,304 43	0 00	0 00	0 00
8,400 00	91 00	269 47	5,149 05	-31 66	-3,404 27	3,404 41	0 00	0 00	0 00
8,500 00	91 00	269 47	5,147 31	-32 59	-3,504 25	3,504 40	0 00	0 00	0 00
8,600 00	91 00	269 47	5,145 56	-33 52	-3,604 23	3,604 38	0 00	0 00	0 00
8,700 00	91 00	269 47	5,143 82	-34 45	-3,704 21	3,704 37	0 00	0 00	0 00
8,800 00	91 00	269 47	5,142 07	-35 38	-3,804 19	3,804 35	0 00	0 00	0 00
8,900 00	91 00	269 47	5,140 33	-36 31	-3,904 17	3,904 34	0 00	0 00	0 00
9,000 00	91 00	269 47	5,138 58	-37 24	-4,004 15	4,004 32	0 00	0 00	0 00
9,100 00	91 00	269 47	5,136 84	-38 17	-4,104 13	4,104 31	0 00	0 00	0 00
9,200 00	91 00	269 47	5,135 09	-39 10	-4,204 11	4,204 29	0 00	0 00	0 00
9,300 00	91 00	269 47	5,133 35	-40 03	-4,304 09	4,304 28	0 00	0 00	0 00
9,400 00	91 00	269 47	5,131 60	-40 96	-4,404 07	4,404 26	0 00	0 00	0 00
9,500 00	91 00	269 47	5,129 86	-41 89	-4,504 05	4,504 25	0 00	0 00	0 00
9,600 00	91 00	269 47	5,128 11	-42 82	-4,604 03	4,604 23	0 00	0 00	0 00



Scientific Drilling
Planning Report



Database: EDM 5000 1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Hogan State Corn
Well: #2H
Wellbore: OH
Design: Plan #3 - 8-3/4" Hole

Local Co-ordinate Reference: Well #2H
TVD Reference: GL @ 3665 00usft
MD Reference: GL @ 3665 00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,630 35	91 00	269 47	5,127 58	-43 10	-4,634 38	4,634 58	0 00	0 00	0 00
PBHL									

Design Targets

Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL	Shape	0 00	0 01	5,127 58	-43 10	-4,634 38	676,978 60	586,235 50	32° 51' 38 816 N	104° 3' 8 981 W
- plan hits target center										
- Point										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Comment
4,722 61	4,722 61	0 00	0 00	KOP Start Build 12 00
5,480 94	5,200 00	-4 52	-485 78	EOC Start 4149 41 hold at 5480 94 MD



Hogan State Com #2H
Eddy County, NM (NAN27 NME)
Northing: (Y) 677021.70
Easting: (X) 590869.50
Plan #3 - 8-3/4" Hole



Azimuths to Grid North
True North -0.16°
Magnetic North 7.63°
Magnetic Field
Strength 48796 Gauss
Dip Angle 60.53°
Date 10/22/2012
Model BGGM2012

To convert a Magnetic Direction to a Grid Direction, Add 7.63°
To convert a True Direction to a Grid Direction, Subtract 0.16°

WELL DETAILS					
		Ground Level	3865.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	677021.70	590869.50	32° 51' 39.118 N	104° 2' 14.652 W

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4722.61	0.00	0.00	4722.61	0.00	0.00	0.00	0.00	0.00	
5480.94	91.00	269.47	5200.00	-4.52	-485.78	12.00	269.47	485.80	
9630.35	91.00	269.47	5127.58	-43.10	-4834.38	0.00	0.00	4834.58	PBHL

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL	5127.58	-43.10	-4834.38	676978.60	586235.50

SITE DETAILS Hogan State Com
Site Centre Northing 677356.80
Easting 590869.30
Positional Uncertainty 0.00
Convergence 0.18
Local North Grid

PROJECT DETAILS Eddy County, NM (NAN27 NME)
Geodetic System US State Plane 1927 (Exact solution)
Datum NAD 1927 (NADCON CONUS)
Ellipsoid Clarke 1866
Zone New Mexico East 3001

System Datum Mean Sea Level

Map System US State Plane 1927 (Exact solution)
Datum NAD 1927 (NADCON CONUS)
Ellipsoid Clarke 1866
Zone Name New Mexico East 3001

Local Origin Wall #2H Grid North

Latitude 32° 51' 39.118 N
Longitude 104° 2' 14.652 W

Grid East 590869.50
Grid North 677021.70
Scale Factor 1.000

Geomagnetic Model BGGM2012
Sample Date 22-Oct-12
Magnetic Declination 7.79°
Dip Angle from Horizontal 60.53°
Magnetic Field Strength 48796

To convert a Magnetic Direction to a Grid Direction, Add 7.63°
To convert a Magnetic Direction to a True Direction, Add 7.79° East
To convert a True Direction to a Grid Direction, Subtract 0.16

