

Submit 1 Copy To Appropriate District Office
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

WELL API NO. 30-015-39814
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Patton 5 Fee
8. Well Number 1H
9. OGRID Number 229137
10. Pool name or Wildcat Atoka; Glorieta-Yeso 3250

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.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator COG Operating LLC	
3. Address of Operator One Concho Center - 600 W Illinois Ave Midland, TX 79701	
4. Well Location Unit Letter D : 380 feet from the NORTH line and 330 feet from the WEST line Section 5 Township 19S Range 26E NMPM County EDDY	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3381'	

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 Casing Program** ☒

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 proposes to drill an 11" hole to 1200' w/fresh water, run 8-5/8" 32# J-55 and cement to surface. Drill a 7-7/8" hole to 2273' MD and kick off and drill curve to 2750' TVD 3023' MD. Drill a 7-7/8" lateral to new BHL @ 2750' TVD 7165' MD. Run a 5 1/2" 17# L-80 casing to TD cement to surface with 800 sacks.

A revised directional plan is attached.

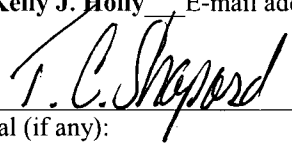
Spud Date:

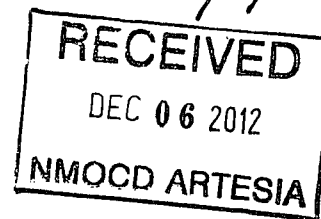
Rig Release Date:

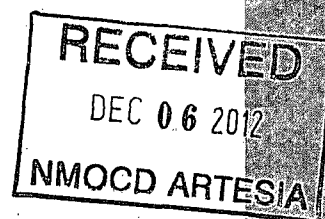
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE  TITLE **Permitting Tech** DATE **12/04/2012**

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 **12/6/2012**
Conditions of Approval (if any):





COG Operating LLC

Eddy County, NM (NAN27 NME)

Patton 5 Fee #1H

OH

Plan #1 8-3/4" Hole

Surface: 380' FNL, 330' FWL, Sec 5, T19S, R26E, Unit 4

BHL: 380' FNL, 330' FEL, Sec 5, T19S, R26E, Unit 1

Standard Planning Report

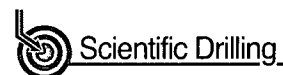
16 October, 2012





Scientific Drilling

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	COG Operating LLC	TVD Reference:	GL Elev. @ 3381.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev. @ 3381.00usft
Site:	Patton 5 Fee	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1. 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:	Patton 5 Fee			
Site Position:		Northing:	616,822.20 usft	Latitude: 32° 41' 44.586 N
From:	Map	Easting:	476,026.50 usft	Longitude: 104° 24' 40.546 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: -0.04 °

Well:	#1H			
Well Position	+N-S	0.00 usft	Northing:	616,822.20 usft
	+E-W	0.00 usft	Easting:	476,026.50 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:		Ground Level: 3,381.00 usft

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/22/2011	7.94	60.46	48,754

Design:	Plan #1. 8-3/4" Hole			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.64

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,272.54	0.00	0.00	2,272.54	0.00	0.00	0.00	0.00	0.00	0.00	
3,022.54	90.00	89.64	2,750.00	2.98	477.46	12.00	12.00	0.00	89.64	
7,164.58	90.00	89.64	2,750.00	28.80	4,619.42	0.00	0.00	0.00	0.00	PBHL



Scientific Drilling

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3381.00usft
Project:	Eddy County, NM (NAN27,NME)	MD Reference:	GL Elev @ 3381.00usft
Site:	Patton 5 Fee	North Reference:	*Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8-3/4" Hole		

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
2,272.54	0.00	0.00	2,272.54	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 12.00/100°									
2,300.00	3.30	89.64	2,299.98	0.00	0.79	0.79	12.00	12.00	0.00
2,400.00	15.30	89.64	2,398.49	0.11	16.91	16.91	12.00	12.00	0.00
2,500.00	27.30	89.64	2,491.49	0.33	53.16	53.17	12.00	12.00	0.00
2,600.00	39.30	89.64	2,574.93	0.67	107.96	107.96	12.00	12.00	0.00
2,700.00	51.30	89.64	2,645.14	1.12	178.90	178.91	12.00	12.00	0.00
2,800.00	63.30	89.64	2,699.07	1.64	262.89	262.90	12.00	12.00	0.00
2,900.00	75.30	89.64	2,734.36	2.22	356.26	356.27	12.00	12.00	0.00
3,000.00	87.30	89.64	2,749.47	2.84	454.93	454.94	12.00	12.00	0.00
3,022.54	90.00	89.64	2,750.00	2.98	477.46	477.47	12.00	12.00	0.00
Land EOC hold 90.00°									
3,100.00	90.00	89.64	2,750.00	3.46	554.92	554.93	0.00	0.00	0.00
3,200.00	90.00	89.64	2,750.00	4.08	654.92	654.93	0.00	0.00	0.00
3,300.00	90.00	89.64	2,750.00	4.71	754.91	754.93	0.00	0.00	0.00
3,400.00	90.00	89.64	2,750.00	5.33	854.91	854.93	0.00	0.00	0.00
3,500.00	90.00	89.64	2,750.00	5.95	954.91	954.93	0.00	0.00	0.00
3,600.00	90.00	89.64	2,750.00	6.58	1,054.91	1,054.93	0.00	0.00	0.00
3,700.00	90.00	89.64	2,750.00	7.20	1,154.91	1,154.93	0.00	0.00	0.00
3,800.00	90.00	89.64	2,750.00	7.82	1,254.91	1,254.93	0.00	0.00	0.00
3,900.00	90.00	89.64	2,750.00	8.45	1,354.90	1,354.93	0.00	0.00	0.00
4,000.00	90.00	89.64	2,750.00	9.07	1,454.90	1,454.93	0.00	0.00	0.00
4,100.00	90.00	89.64	2,750.00	9.69	1,554.90	1,554.93	0.00	0.00	0.00
4,200.00	90.00	89.64	2,750.00	10.32	1,654.90	1,654.93	0.00	0.00	0.00
4,300.00	90.00	89.64	2,750.00	10.94	1,754.90	1,754.93	0.00	0.00	0.00
4,400.00	90.00	89.64	2,750.00	11.57	1,854.89	1,854.93	0.00	0.00	0.00
4,500.00	90.00	89.64	2,750.00	12.19	1,954.89	1,954.93	0.00	0.00	0.00
4,600.00	90.00	89.64	2,750.00	12.81	2,054.89	2,054.93	0.00	0.00	0.00
4,700.00	90.00	89.64	2,750.00	13.44	2,154.89	2,154.93	0.00	0.00	0.00
4,800.00	90.00	89.64	2,750.00	14.06	2,254.89	2,254.93	0.00	0.00	0.00
4,900.00	90.00	89.64	2,750.00	14.68	2,354.88	2,354.93	0.00	0.00	0.00
5,000.00	90.00	89.64	2,750.00	15.31	2,454.88	2,454.93	0.00	0.00	0.00
5,100.00	90.00	89.64	2,750.00	15.93	2,554.88	2,554.93	0.00	0.00	0.00
5,200.00	90.00	89.64	2,750.00	16.55	2,654.88	2,654.93	0.00	0.00	0.00
5,300.00	90.00	89.64	2,750.00	17.18	2,754.88	2,754.93	0.00	0.00	0.00
5,400.00	90.00	89.64	2,750.00	17.80	2,854.87	2,854.93	0.00	0.00	0.00
5,500.00	90.00	89.64	2,750.00	18.42	2,954.87	2,954.93	0.00	0.00	0.00
5,600.00	90.00	89.64	2,750.00	19.05	3,054.87	3,054.93	0.00	0.00	0.00
5,700.00	90.00	89.64	2,750.00	19.67	3,154.87	3,154.93	0.00	0.00	0.00
5,800.00	90.00	89.64	2,750.00	20.29	3,254.87	3,254.93	0.00	0.00	0.00
5,900.00	90.00	89.64	2,750.00	20.92	3,354.86	3,354.93	0.00	0.00	0.00
6,000.00	90.00	89.64	2,750.00	21.54	3,454.86	3,454.93	0.00	0.00	0.00
6,100.00	90.00	89.64	2,750.00	22.16	3,554.86	3,554.93	0.00	0.00	0.00
6,200.00	90.00	89.64	2,750.00	22.79	3,654.86	3,654.93	0.00	0.00	0.00
6,300.00	90.00	89.64	2,750.00	23.41	3,754.86	3,754.93	0.00	0.00	0.00
6,400.00	90.00	89.64	2,750.00	24.04	3,854.85	3,854.93	0.00	0.00	0.00
6,500.00	90.00	89.64	2,750.00	24.66	3,954.85	3,954.93	0.00	0.00	0.00
6,600.00	90.00	89.64	2,750.00	25.28	4,054.85	4,054.93	0.00	0.00	0.00
6,700.00	90.00	89.64	2,750.00	25.91	4,154.85	4,154.93	0.00	0.00	0.00
6,800.00	90.00	89.64	2,750.00	26.53	4,254.85	4,254.93	0.00	0.00	0.00
6,900.00	90.00	89.64	2,750.00	27.15	4,354.85	4,354.93	0.00	0.00	0.00
7,000.00	90.00	89.64	2,750.00	27.78	4,454.84	4,454.93	0.00	0.00	0.00
7,100.00	90.00	89.64	2,750.00	28.40	4,554.84	4,554.93	0.00	0.00	0.00



Database:	EDM 5000.1 Single User Db.	Local Co-ordinate Reference:	Well #1H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3381.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3381.00usft
Site:	Patton 5 Fee	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 .8-3/4" Hole		

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)
7,164.58	90.00	89.64	2,750.00	28.80	4,619.42	4,619.51	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	- plan hits target center - Point	0.00	0.00	2,750.00	28.80	4,619.42	616,851.00	480,645.50	32° 41' 44.902 N 104° 23' 46.493 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,272.54	2,272.54	0.00	0.00	KOP Start Build 12.00/100'
3,022.54	2,750.00	2.98	477.46	Land EOC hold 90.00°



Patton 5 Fee #1H
Eddy County, NM (NAN27 NME)
Northing: (Y) 616822.20
Easting: (X) 476026.50
Plan #1 8-3/4" Hole



Azimuths to Grid North
True North: 0.04°
Magnetic North: 7.98°

Magnetic Field
Strength: 48754.1nT
Dip Angle: 60.46°
Date: 12/22/2011
Model: IGRF2010

To convert a Magnetic Direction to a Grid Direction, Add 7.98°
To convert a True Direction to a Grid Direction, Add 0.04°

WELL DETAILS:

		Ground Level:	3381.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616822.20	476026.50	32° 41' 44.586 N	104° 24' 40.546 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	
2272.54	0.00	0.00	2272.54	0.00	0.00	0.00	0.00	0.00	
3022.54	90.00	89.64	2750.00	2.98	477.46	12.00	89.64	477.46	
7164.58	90.00	89.64	2750.00	28.80	4619.42	0.00	0.00	4619.51	PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL	2750.00	28.80	4619.42	616851.00	480645.50

SITE DETAILS: Patton 5 Fee
Site Centre Northing: 616822.20
Easting: 476026.50
Positional Uncertainty: 0.00
Convergence: -0.04
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

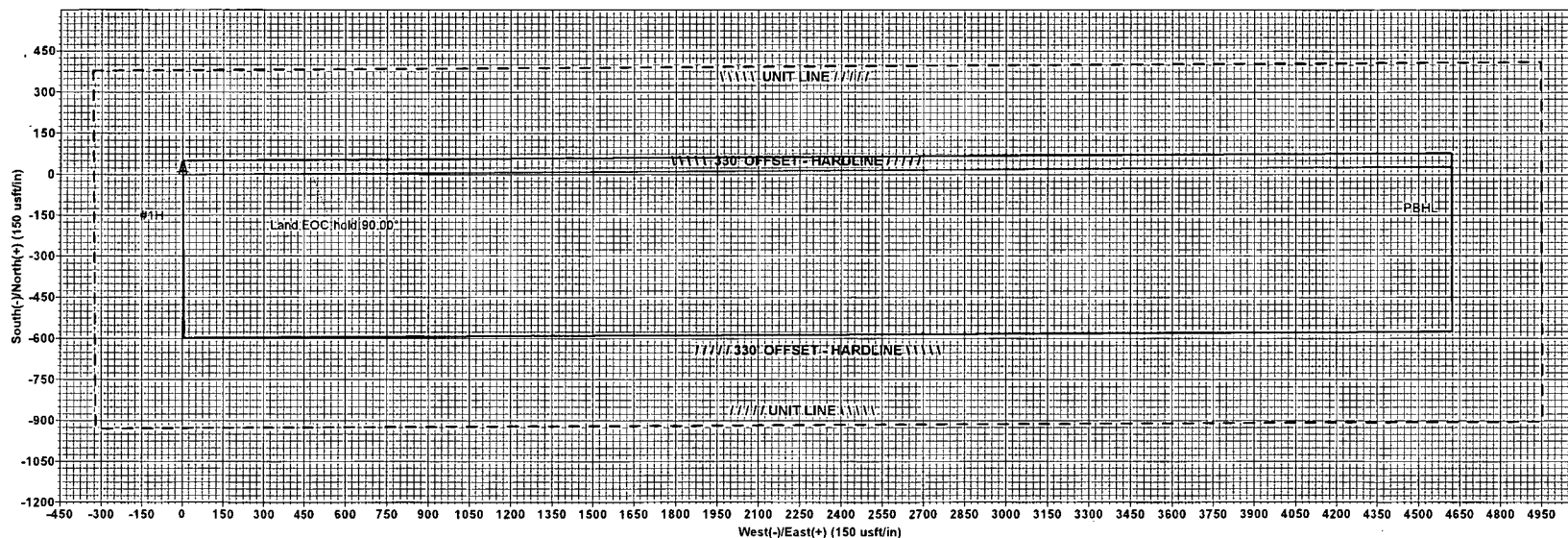
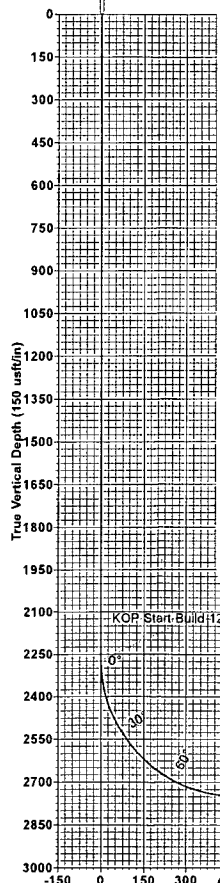
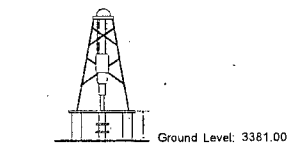
Local Origin: Well #1H, Grid North

Latitude: 32° 41' 44.586 N
Longitude: 104° 24' 40.546 W

Grid East: 476026.50
Grid North: 616822.20
Scale Factor: 1.000

Geomagnetic Model: IGRF2010
Sample Date: 22-Dec-11
Magnetic Declination: 7.94°
Dip Angle from Horizontal: 60.46°
Magnetic Field Strength: 48754

To convert a Magnetic Direction to a Grid Direction, Add 7.98°
To convert a Magnetic Direction to a True Direction, Add 7.94° East
To convert a True Direction to a Grid Direction, Add 0.04°



Vertical Section at 89.64° (150 usft/in)