

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

Form C-103
Revised August 1, 2011

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

WELL API NO. 30-015-39783
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Clydesdale 1 Fee
8. Well Number 2H
9. OGRID Number 229137
10. Pool name or Wildcat 50270 Penasco Draw; SA-Yeso (ASSOC)

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 A : 1040 feet from the NORTH line and 150 feet from the EAST line Section 1 Township 19S Range 25E NMPM County EDDY
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3430'

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 ☐

OTHER: **Change Casing Program** ☒

SUBSEQUENT REPORT OF:

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

OTHER: ☐

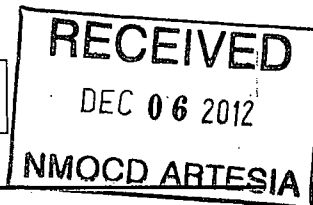
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG proposes to drill a 11" hole to 1200' w/fresh water, run 8 5/8" 32# J-56 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 7432' 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 Regulatory Analyst DATE 12/04/2012
Type or print name Robyn M. Odom E-mail address: Rodom@concho.com PHONE: 432-685-4385

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)
Clydesdale 1 Fee #2H

OH

Plan #4 8-3/4" Hole

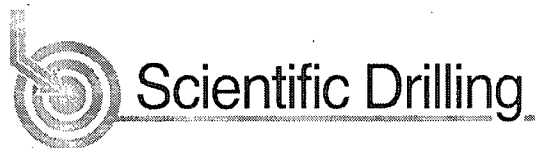
Surface: 1040' FNL, 150' FEL, Sec 1, T19S, R25E, Unit A (Lot 1)

PP: 1011' FNL, 570' FEL, Sec 1, T19S, R25E, Unit A (Lot 1)

BHL: 1093' FNL, 330' FWL, Sec 1, T19S, R25E, Unit D (Lot 4)

Standard Planning Report

05 November, 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 Elev @ 3408.00usft
Project:	Eddy County: NM (NAN27 NME)	MD Reference:	GL Elev @ 3408.00usft
Site:	Clydesdale 1 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #4 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	Clydesdale 1 Fee		
Site Position:		Northing:	614,960.50 usft
From:	Map	Easting:	470,388.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 41' 26.118 N
		Longitude:	104° 25' 46.509 W
		Grid Convergence:	-0.05 °

Well	#2H		
Well Position	+N/-S	1,219.81 usft	Northing:
	+E/-W	9.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
			3,408.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	BGGM2012	11/1/2012	7.95
			Dip Angle
			(°)
			60.40
			Field Strength
			(nT)
			48,645

Design	Plan #4 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
			(°)
			270.63

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(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	
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	274.00	2,750.00	33.31	-476.30	12.00	12.00	0.00	274.00	
3,149.02	90.00	270.21	2,750.00	37.95	-602.68	3.00	0.00	-3.00	-90.00	
7,431.91	90.00	270.21	2,750.00	53.30	-4,885.54	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: Clydesdale 1 Fee
Well: #2H
Wellbore: OH
Design: Plan #4 8-3/4" Hole

Local Co-ordinate Reference: Well #2H
TVD Reference: CL Elev @ 3408.00usft
MD Reference: CL Elev @ 3408.00usft
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)
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									
2,300.00	3.30	274.00	2,299.98	0.06	-0.79	0.79	12.00	12.00	0.00
2,400.00	15.30	274.00	2,398.49	1.18	-16.87	16.88	12.00	12.00	0.00
2,500.00	27.30	274.00	2,491.49	3.71	-53.03	53.07	12.00	12.00	0.00
2,600.00	39.30	274.00	2,574.93	7.53	-107.70	107.77	12.00	12.00	0.00
2,700.00	51.30	274.00	2,645.14	12.48	-178.47	178.59	12.00	12.00	0.00
2,800.00	63.30	274.00	2,699.08	18.34	-262.25	262.44	12.00	12.00	0.00
2,900.00	75.30	274.00	2,734.37	24.85	-355.40	355.65	12.00	12.00	0.00
2,965.99	83.21	274.00	2,746.66	29.37	-420.03	420.32	12.00	12.00	0.00
PP-330' FSL									
3,000.00	87.30	274.00	2,749.47	31.73	-453.83	454.14	12.00	12.00	0.00
3,022.54	90.00	274.00	2,750.00	33.31	-476.30	476.64	12.00	12.00	0.00
EOC Start DLS 3.00 TFO -90.00									
3,100.00	90.00	271.68	2,750.00	37.14	-553.66	554.03	3.00	0.00	-3.00
3,149.02	90.00	270.21	2,750.00	37.95	-602.68	603.06	3.00	0.00	-3.00
Start 4282.89 hold at 3149.02 MD									
3,200.00	90.00	270.21	2,750.00	38.13	-653.65	654.03	0.00	0.00	0.00
3,300.00	90.00	270.21	2,750.00	38.49	-753.65	754.03	0.00	0.00	0.00
3,400.00	90.00	270.21	2,750.00	38.85	-853.65	854.02	0.00	0.00	0.00
3,500.00	90.00	270.21	2,750.00	39.20	-953.65	954.02	0.00	0.00	0.00
3,600.00	90.00	270.21	2,750.00	39.56	-1,053.65	1,054.02	0.00	0.00	0.00
3,700.00	90.00	270.21	2,750.00	39.92	-1,153.65	1,154.02	0.00	0.00	0.00
3,800.00	90.00	270.21	2,750.00	40.28	-1,253.65	1,254.01	0.00	0.00	0.00
3,900.00	90.00	270.21	2,750.00	40.64	-1,353.65	1,354.01	0.00	0.00	0.00
4,000.00	90.00	270.21	2,750.00	41.00	-1,453.65	1,454.01	0.00	0.00	0.00
4,100.00	90.00	270.21	2,750.00	41.36	-1,553.65	1,554.01	0.00	0.00	0.00
4,200.00	90.00	270.21	2,750.00	41.72	-1,653.65	1,654.00	0.00	0.00	0.00
4,300.00	90.00	270.21	2,750.00	42.07	-1,753.65	1,754.00	0.00	0.00	0.00
4,400.00	90.00	270.21	2,750.00	42.43	-1,853.65	1,854.00	0.00	0.00	0.00
4,500.00	90.00	270.21	2,750.00	42.79	-1,953.64	1,954.00	0.00	0.00	0.00
4,600.00	90.00	270.21	2,750.00	43.15	-2,053.64	2,053.99	0.00	0.00	0.00
4,700.00	90.00	270.21	2,750.00	43.51	-2,153.64	2,153.99	0.00	0.00	0.00
4,800.00	90.00	270.21	2,750.00	43.87	-2,253.64	2,253.99	0.00	0.00	0.00
4,900.00	90.00	270.21	2,750.00	44.23	-2,353.64	2,353.98	0.00	0.00	0.00
5,000.00	90.00	270.21	2,750.00	44.58	-2,453.64	2,453.98	0.00	0.00	0.00
5,100.00	90.00	270.21	2,750.00	44.94	-2,553.64	2,553.98	0.00	0.00	0.00
5,200.00	90.00	270.21	2,750.00	45.30	-2,653.64	2,653.98	0.00	0.00	0.00
5,300.00	90.00	270.21	2,750.00	45.66	-2,753.64	2,753.97	0.00	0.00	0.00
5,400.00	90.00	270.21	2,750.00	46.02	-2,853.64	2,853.97	0.00	0.00	0.00
5,500.00	90.00	270.21	2,750.00	46.38	-2,953.64	2,953.97	0.00	0.00	0.00
5,600.00	90.00	270.21	2,750.00	46.74	-3,053.64	3,053.97	0.00	0.00	0.00
5,700.00	90.00	270.21	2,750.00	47.09	-3,153.64	3,153.96	0.00	0.00	0.00
5,800.00	90.00	270.21	2,750.00	47.45	-3,253.64	3,253.96	0.00	0.00	0.00
5,900.00	90.00	270.21	2,750.00	47.81	-3,353.64	3,353.96	0.00	0.00	0.00
6,000.00	90.00	270.21	2,750.00	48.17	-3,453.64	3,453.96	0.00	0.00	0.00
6,100.00	90.00	270.21	2,750.00	48.53	-3,553.63	3,553.95	0.00	0.00	0.00
6,200.00	90.00	270.21	2,750.00	48.89	-3,653.63	3,653.95	0.00	0.00	0.00
6,300.00	90.00	270.21	2,750.00	49.25	-3,753.63	3,753.95	0.00	0.00	0.00
6,400.00	90.00	270.21	2,750.00	49.60	-3,853.63	3,853.94	0.00	0.00	0.00
6,500.00	90.00	270.21	2,750.00	49.96	-3,953.63	3,953.94	0.00	0.00	0.00
6,600.00	90.00	270.21	2,750.00	50.32	-4,053.63	4,053.94	0.00	0.00	0.00
6,700.00	90.00	270.21	2,750.00	50.68	-4,153.63	4,153.94	0.00	0.00	0.00



Scientific Drilling
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL Elev @ 3408.00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL Elev @ 3408.00usft
Site:	Clydesdale 1 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #4 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)
6,800.00	90.00	270.21	2,750.00	51.04	-4,253.63	4,253.93	0.00	0.00	0.00
6,900.00	90.00	270.21	2,750.00	51.40	-4,353.63	4,353.93	0.00	0.00	0.00
7,000.00	90.00	270.21	2,750.00	51.76	-4,453.63	4,453.93	0.00	0.00	0.00
7,100.00	90.00	270.21	2,750.00	52.11	-4,553.63	4,553.93	0.00	0.00	0.00
7,200.00	90.00	270.21	2,750.00	52.47	-4,653.63	4,653.92	0.00	0.00	0.00
7,300.00	90.00	270.21	2,750.00	52.83	-4,753.63	4,753.92	0.00	0.00	0.00
7,400.00	90.00	270.21	2,750.00	53.19	-4,853.63	4,853.92	0.00	0.00	0.00
7,431.91	90.00	270.21	2,750.00	53.30	-4,885.54	4,885.83	0.00	0.00	0.00
PBHL									

Design Targets

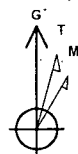
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
PP=330' FSL	0.00	0.00	2,746.66	29.37	-420.00	616,209.57	469,977.04	32° 41' 38.474 N	104° 25' 51.332 W
- plan hits target center									
- Point									
PBHL	0.00	0.00	2,750.00	53.30	-4,885.54	616,233.50	465,511.90	32° 41' 38.668 N	104° 26' 43.583 W
- plan hits target center									
- Point									

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
3,022.54	2,750.00	33.31	-476.30	EOC Start DLS 3.00 TFO -90.00
3,149.02	2,750.00	37.95	-602.68	Start 4282.89 hold at 3149.02 MD



Clydesdale 1 Fee #2H
Eddy County, NM (NAN27 NME)
Northing: (Y) 616180.20
Easting: (X) 470397.00
Plan #4 8-3/4" Hole



Azimuths to Grid North
True North: 0.05°
Magnetic North: 8.00°
Magnetic Field
Strength: 48645.0nT
Dip Angle: 60.40°
Date: 11/12/2012
Model: BGGM2012

To convert a Magnetic Direction to a Grid Direction, Add 8.00°
To convert a True Direction to a Grid Direction, Add 0.05°

WELL DETAILS:						
Ground Level: 3408.00						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	616180.20	470397.00	32° 41' 38.188 N	104° 25' 46.417 W	

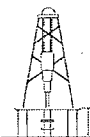
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2272.54	0.00	0.00	2272.54	0.00	0.00	0.00	0.00	0.00	
3022.54	90.00	274.00	2750.00	33.31	-476.30	12.00	274.00	476.64	
3149.02	90.00	270.21	2750.00	37.95	-602.68	3.00	-90.00	603.06	
7431.91	90.00	270.21	2750.00	53.30	-4885.54	0.00	0.00	4885.83	PBHL

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
PP=330' FSL	2746.66	29.37	-420.00	616209.57	469977.04
PBHL	2750.00	53.30	-4885.54	616233.50	465511.90

SITE DETAILS: Clydesdale 1 Fee
Site Centre Northing: 614960.50
Easting: 470388.00
Positional Uncertainty: 0.00
Convergence: -0.05
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 #2H, Grid North
Latitude: 32° 41' 38.188 N
Longitude: 104° 25' 46.417 W
Grid East: 470397.00
Grid North: 616180.20
Scale Factor: 1.000
Geomagnetic Model: BGGM2012
Sample Date: 01-Nov-12
Magnetic Declination: 7.95°
Dip Angle from Horizontal: 60.40°
Magnetic Field Strength: 48645
To convert a Magnetic Direction to a Grid Direction, Add 8.00°
To convert a Magnetic Direction to a True Direction, Add 7.95° East
To convert a True Direction to a Grid Direction, Add 0.05°



Ground Level: 3408.00

