

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

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

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. 30-015-40131
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 Clydesdale 1 Fee
4. Well Location Unit Letter H : 2260 feet from the NORTH line and 150 feet from the EAST line Section 1 Township 19S Range 25E NMPM County EDDY		8. Well Number 4H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3410'		9. OGRID Number 229137
		10. Pool name or Wildcat Penasco Draw; SA-Yeso (Assoc) 50270

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: Pilot Hole & 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 proposes, before kicking off, to drill 8 3/4" curve, to downsize hole to 7 7/8" at kick off point and drill pilot hole to 4100'. Open hole logs will be run and pilot hole will be cemented completely with 1000 sx of cement.

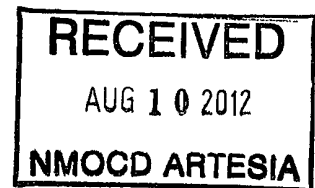
COG respectfully requests to change the TVD to:

✓ TVD Landing: 2950'

TVD at TD: 2758'

Inclination: 92.50

A revised Directional Plan is attached for your review.



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 [Signature] TITLE Permitting Tech DATE 08/10/2012

Type or print name Kelly J. Holly E-mail address: kholly@concho.com PHONE: 432-685-4384

For State Use Only

APPROVED BY: [Signature] TITLE Geologist DATE 8/10/2012

Conditions of Approval (if any):



COG Operating LLC

Eddy County, NM (NAN27 NME)

Clydesdale 1 Fee #4H

OH

Plan #2 8-3/4" Hole

SHL = 2260' FNL & 150' FEL

PP = 2260' FNL & 330' FEL

BHL = 2260' FNL & 330' FWL

Standard Planning Report

09 August, 2012

RECEIVED

AUG 10 2012

NMOCD ARTESIA



Scientific Drilling



Scientific Drilling International, Inc.

Planning Report



Scientific Drilling

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

Local Co-ordinate Reference: Well #4H
TVD Reference: GL @ 3410 00usft
MD Reference: GL @ 3410 00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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 Latitude: 32° 41' 26 118 N
From: Map Easting: 470,388 00 usft Longitude: 104° 25' 46 509 W
Position Uncertainty: 0 00 usft Slot Radius: 13-3/16 " Grid Convergence: -0 05 °

Well: #4H
Well Position: +N/-S 0 00 usft Northing: 614,960 50 usft Latitude: 32° 41' 26 118 N
+E/-W 0 00 usft Easting: 470,388 00 usft Longitude: 104° 25' 46 509 W
Position Uncertainty: 0 00 usft Wellhead Elevation: Ground Level: 3,410 00 usft

Wellbore: OH
Magnetics: Model Name Sample Date Declination (°) Dip Angle (°) Field Strength (nT)
IGRF2010 08/09/12 7 87 60 44 48,686

Design: Plan #2 8-3/4" Hole
Audit Notes:
Version: Phase: PLAN Tie On Depth: 0 00
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
(usft) (usft) (usft) (°)
0 00 0 00 0 00 271 25

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	
2,473 00	0 00	0 00	2,473 00	0 00	0 00	0 00	0 00	0 00	0 00	
3,243 82	92 50	271 25	2,950 00	10 83	-498 17	12 00	12 00	0 00	271 25	
7,633 21	92 50	271 25	2,758 50	106 11	-4,882 34	0 00	0 00	0 00	0 00	PBHL-Clydesdale 1 #



Scientific Drilling International, Inc.
Planning Report



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

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Well #4H
GL @ 3410 00usft
GL @ 3410 00usft
Grd
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
2,473 00	0 00	0 00	2,473 00	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 12.00									
2,500 00	3 24	271 25	2,499 99	0 02	-0 76	0 76	12 00	12 00	0 00
2,600 00	15 24	271 25	2,598 51	0 36	-16 79	16 79	12 00	12 00	0 00
2,700 00	27 24	271 25	2,691 54	1 15	-52 94	52 95	12 00	12 00	0 00
2,800 00	39 24	271 25	2,775 03	2 34	-107 64	107 67	12 00	12 00	0 00
2,862 22	46 71	271 25	2,820 52	3 26	-150 02	150 05	12 00	12 00	0 00
PP-330' FEL Clydesdale 1 Fee #4H									
2,900 00	51 24	271 25	2,845 31	3 88	-178 50	178 55	12 00	12 00	0 00
3,000 00	63 24	271 25	2,899 32	5 70	-262 43	262 49	12 00	12 00	0 00
3,100 00	75 24	271 25	2,934 70	7 73	-355 74	355 83	12 00	12 00	0 00
3,200 00	87 24	271 25	2,949 90	9 88	-454 37	454 48	12 00	12 00	0 00
3,243 82	92 50	271 25	2,950 00	10.83	-498 17	498 28	12 00	12 00	0 00
EOC Start 4389.39 hold at 3243.82 MD									
3,300 00	92 50	271 25	2,947 55	12 05	-554 28	554 41	0 00	0 00	0 00
3,400 00	92 50	271 25	2,943 19	14 22	-654 16	654 32	0 00	0 00	0 00
3,500 00	92 50	271 25	2,938 82	16 39	-754 04	754 22	0 00	0 00	0 00
3,600 00	92 50	271 25	2,934 46	18 56	-853 92	854 13	0 00	0 00	0 00
3,700 00	92 50	271 25	2,930 10	20 73	-953 80	954 03	0 00	0 00	0 00
3,800 00	92 50	271 25	2,925 73	22 90	-1,053 69	1,053 93	0 00	0 00	0 00
3,900 00	92 50	271 25	2,921 37	25 07	-1,153 57	1,153 84	0 00	0 00	0 00
4,000 00	92 50	271 25	2,917 01	27 24	-1,253 45	1,253 74	0 00	0 00	0 00
4,100 00	92 50	271 25	2,912 65	29 41	-1,353 33	1,353 65	0 00	0 00	0 00
4,200 00	92 50	271 25	2,908 28	31 58	-1,453 21	1,453 55	0 00	0 00	0 00
4,300 00	92 50	271 25	2,903 92	33 75	-1,553 09	1,553 46	0 00	0 00	0 00
4,400 00	92 50	271 25	2,899 56	35 92	-1,652 97	1,653 36	0 00	0 00	0 00
4,500 00	92 50	271 25	2,895 19	38 10	-1,752 85	1,753 27	0 00	0 00	0 00
4,600 00	92 50	271 25	2,890 83	40 27	-1,852 74	1,853 17	0 00	0 00	0 00
4,700 00	92 50	271 25	2,886 47	42 44	-1,952 62	1,953 08	0 00	0 00	0 00
4,800 00	92 50	271 25	2,882 11	44 61	-2,052 50	2,052 98	0 00	0 00	0 00
4,900 00	92 50	271 25	2,877 74	46 78	-2,152 38	2,152 89	0 00	0 00	0 00
5,000 00	92 50	271 25	2,873 38	48 95	-2,252 26	2,252 79	0 00	0 00	0 00
5,100 00	92 50	271 25	2,869 02	51 12	-2,352 14	2,352 70	0 00	0 00	0 00
5,200 00	92 50	271 25	2,864 66	53 29	-2,452 02	2,452 60	0 00	0 00	0 00
5,300 00	92 50	271 25	2,860 29	55 46	-2,551 90	2,552 51	0 00	0 00	0 00
5,400 00	92 50	271 25	2,855 93	57 63	-2,651 79	2,652 41	0 00	0 00	0 00
5,500 00	92 50	271 25	2,851 57	59 80	-2,751 67	2,752 32	0 00	0 00	0 00
5,600 00	92 50	271 25	2,847 20	61 97	-2,851 55	2,852 22	0 00	0 00	0 00
5,700 00	92 50	271 25	2,842 84	64 14	-2,951 43	2,952 13	0 00	0 00	0 00
5,800 00	92 50	271 25	2,838 48	66 32	-3,051 31	3,052 03	0 00	0 00	0 00
5,900 00	92 50	271 25	2,834 12	68 49	-3,151 19	3,151 94	0 00	0 00	0 00
6,000 00	92 50	271 25	2,829 75	70 66	-3,251 07	3,251 84	0 00	0 00	0 00
6,100 00	92 50	271 25	2,825 39	72 83	-3,350 95	3,351 75	0 00	0 00	0 00
6,200 00	92 50	271 25	2,821 03	75 00	-3,450 83	3,451 65	0 00	0 00	0 00
6,300 00	92 50	271 25	2,816 66	77 17	-3,550 72	3,551 55	0 00	0 00	0 00
6,400 00	92 50	271 25	2,812 30	79 34	-3,650 60	3,651 46	0 00	0 00	0 00
6,500 00	92 50	271 25	2,807 94	81 51	-3,750 48	3,751 36	0 00	0 00	0 00
6,600 00	92 50	271 25	2,803 58	83 68	-3,850 36	3,851 27	0 00	0 00	0 00
6,700 00	92 50	271 25	2,799 21	85 85	-3,950 24	3,951 17	0 00	0 00	0 00
6,800 00	92 50	271 25	2,794 85	88 02	-4,050 12	4,051 08	0 00	0 00	0 00
6,900 00	92 50	271 25	2,790 49	90 19	-4,150 00	4,150 98	0 00	0 00	0 00
7,000 00	92 50	271 25	2,786 13	92 36	-4,249 88	4,250 89	0 00	0 00	0 00



Scientific Drilling International, Inc.
Planning Report



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

Local Co-ordinate Reference: Well #4H
TVD Reference: GL @ 3410 00usft
MD Reference: GL @ 3410 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)
7,100 00	92 50	271.25	2,781 76	94.53	-4,349 77	4,350 79	0 00	0 00	0 00
7,200 00	92.50	271 25	2,777 40	96 71	-4,449 65	4,450 70	0 00	0 00	0 00
7,300 00	92 50	271 25	2,773 04	98 88	-4,549 53	4,550 60	0 00	0 00	0 00
7,400 00	92 50	271 25	2,768 67	101 05	-4,649 41	4,650 51	0 00	0 00	0 00
7,500 00	92 50	271 25	2,764 31	103 22	-4,749 29	4,750 41	0 00	0 00	0 00
7,600 00	92 50	271 25	2,759 95	105 39	-4,849 17	4,850 32	0 00	0 00	0 00
7,633 21	92 50	271 25	2,758 50	106 11	-4,882 34	4,883 49	0 00	0 00	0 00

PBHL-Clydesdale 1 #4H

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-Clydesdale 1 #4H	- plan hits target center - Point	0 00	0 00	2,758 50	106 11	-4,882 34	615,066 60	465,506 10	32° 41' 27 120 N	104° 26' 43 637 W
PP-330' FEL Clydesdale	- plan hits target center - Point	0 00	360 00	2,820 50	3 26	-150 00	614,963 76	470,238 01	32° 41' 26 149 N	104° 25' 48 264 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
2,473 00	2,473 00	0 00	0 00	KOP Start Build 12 00
3,243 82	2,950 00	10 83	-498 17	EOC Start 4389.39 hold at 3243 82 MD
7,633 21	2,758 50	106 11	-4,882 34	PBHL

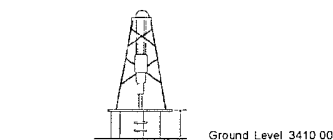


Azimuths to Grid North
True North 0 05°
Magnetic North 7 93°

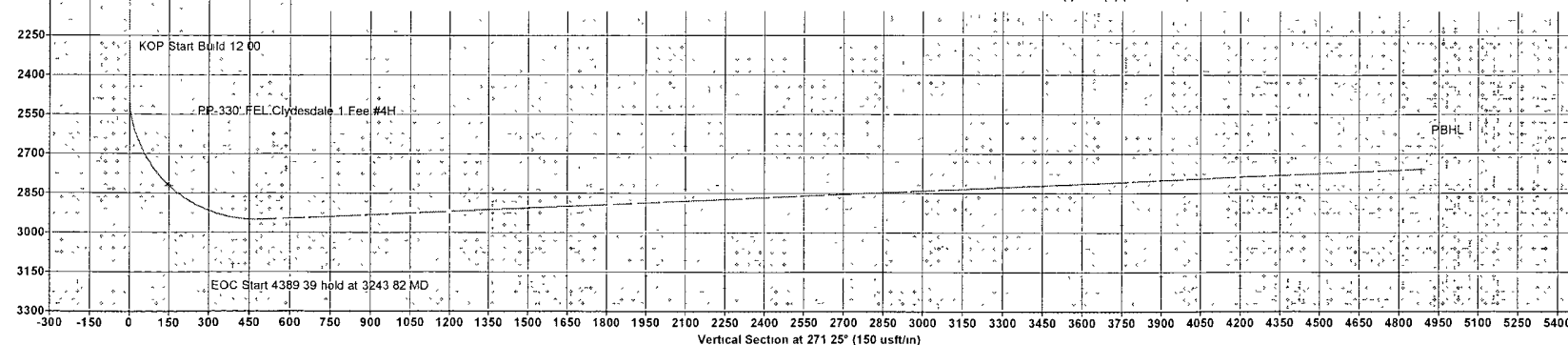
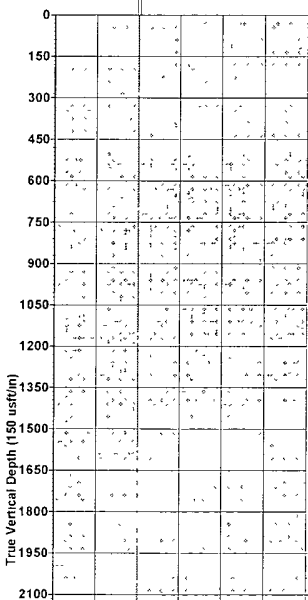
Magnetic Field
Strength 48685 9nT
Dip Angle 60 44°
Date 08/09/2012
Model IGRF2010

To convert Magnetic North to Grid, Add 7 93°
To convert True North to Grid, Add 0 05°

Clydesdale 1 Fee #4H
Eddy County, NM (NAN27 NME)
Northing: (Y) 614960.50
Easting: (X) 470388.00
Plan #2 8-3/4" Hole



Ground Level 3410 00



WELL DETAILS

Ground Level		3410 00	
+N/-S	+E/-W	Northing	Easting
0 00	0 00	614960 50	470388 00
		Latitude	Longitude
		32° 41' 26 118 N	104° 25' 46 509 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2473 00	0 00	0 00	2473 00	0 00	0 00	0 00	0 00	0 00	
3243 82	92 50	271 25	2950 00	10 83	-498 17	12 00	271 25	498 28	
7633 21	92 50	271 25	2758 50	106 11	-4882 34	0 00	0 00	4883 49	PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL-Clydesdale 1 #4H	2758 50	106 11	-4882 34	615066 60	465506 10
PP-330' FEL Clydesdale 1 Fee #4H-2820 50		3 26	-150 00	614963 76	470238 01

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

SITE DETAILS Clydesdale 1 Fee
Site Centre Northing 614960 50
Easting 470388 00

Positional Uncertainty 0 00
Convergence -0 05
Local North Grid

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 #4H, Grid North

Latitude 32° 41' 26 118 N
Longitude 104° 25' 46 509 W

Grid East 470388 00
Grid North 614960 50
Scale Factor 1 000

Geomagnetic Model IGRF2010
Sample Date 09-Aug-12
Magnetic Declination 7 87°
Dip Angle from Horizontal 60 44°
Magnetic Field Strength 48686

To convert Magnetic North to Grid, Add 7 93°
To convert Magnetic North to True North, Add 7 87° East
To convert True North to Grid, Add 0 05°