

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

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. 30-015-40123
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 1700 feet from the NORTH line and 150 feet from the EAST line Section 1 Township 19S Range 25E NMPM County EDDY		8. Well Number 3H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3417'		9. OGRID Number 229137
		10. Pool name or Wildcat Penasco Draw; SA-Yeso (ASSOC)

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

NOTICE OF INTENTION TO	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐	ALTERING CASING ☐
PULL OR ALTER CASING ☐	COMMENCE DRILLING OPNS ☐
DOWNHOLE COMMINGLE ☐	P AND A ☐
	CASING/CEMENT JOB ☐
OTHER: Change Casing Program/Landing Point ☒	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 2301' MD and kick off and drill curve to 2821' TVD 3142' MD. Drill a 7-7/8" lateral to new BHL @ 2632' TVD 7486' 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:

RECEIVED

OCT 23 2013

NMOCD ARTESIA

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

SIGNATURE Kelly J. Holly TITLE Permitting Tech DATE 10/23/13

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

APPROVED BY: DR Dade TITLE DIST REP Supervisor DATE 10/23/2013
Conditions of Approval (if any):

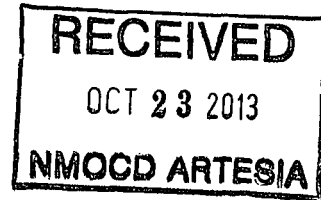


COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Clydesdale 1 Fee

#3H



WB1

Plan: Plan #1 10-22-13

Surface: 1700' FNL, 150' FEL, Sec 3, T19S, R26E, Unit H

PP: 1698' FNL, 330' FEL, Sec 3, T19S, R26E, Unit H

BHL: 1752' FNL, 330' FWL, Sec 3, T19S, R26E, Unit E

Standard Planning Report

22 October, 2013





Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #3H
Company:	COG Operating LLC	TVD Reference:	GL @ 3582.00usft
Project:	Eddy County, New Mexico (NAD 27 NME)	MD Reference:	GL @ 3582.00usft
Site:	Clydesdale 1 Fee	North Reference:	Grid
Well:	#3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #1 10-22-13		

Project	Eddy County, New Mexico (NAD 27 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		

Site	Clydesdale 1 Fee				
Site Position:		Northing:	616,840.10 usft	Latitude:	32° 41' 44.71785 N
From:	Map	Easting:	470,401.70 usft	Longitude:	104° 25' 46.36893 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.05

Well	#3H					
Well Position	+N/-S	-1,319.80 usft	Northing:	615,520.30 usft	Latitude:	32° 41' 31.65752 N
	+E/-W	-9.60 usft	Easting:	470,392.10 usft	Longitude:	104° 25' 46.46725 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,417.00 usft

Wellbore	WB1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	10/15/13	7.73	60.41	48,569

Design	Plan #1 10-22-13			
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	270.63

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	
2,300.92	0.00	0.00	2,300.92	0.00	0.00	0.00	0.00	0.00	0.00	
3,141.83	92.50	270.63	2,821.30	5.94	-543.56	11.00	11.00	0.00	270.63	
7,486.17	92.50	270.63	2,631.80	53.40	-4,883.50	0.00	0.00	0.00	0.00	PBHL-Clydesdale 1 #



Phoenix Technology Services
Planning Report



Database:	GCR.DB	Local Co-ordinate Reference:	Well #3H
Company:	COG Operating LLC	TVD Reference:	GL @ 3582.00usft
Project:	Eddy County, New Mexico (NAD 27 NME)	MD Reference:	GL @ 3582.00usft
Site:	Clydesdale 1 Fee	North Reference:	Grid
Well:	#3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #1 10-22-13		

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	
2,300.92	0.00	0.00	2,300.92	0.00	0.00	0.00	0.00	0.00	0.00	
KOP Start Build 11.00										
2,400.00	10.90	270.63	2,399.40	0.10	-9.39	9.39	11.00	11.00	0.00	
2,500.00	21.90	270.63	2,495.19	0.41	-37.58	37.58	11.00	11.00	0.00	
2,600.00	32.90	270.63	2,583.83	0.91	-83.53	83.53	11.00	11.00	0.00	
2,700.00	43.90	270.63	2,662.09	1.59	-145.54	145.55	11.00	11.00	0.00	
2,747.51	49.13	270.63	2,694.77	1.97	-180.00	180.01	11.00	11.00	0.00	
PP-Clydesdale 1 #3H										
2,800.00	54.90	270.63	2,727.07	2.42	-221.34	221.36	11.00	11.00	0.00	
2,900.00	65.90	270.63	2,776.39	3.37	-308.15	308.17	11.00	11.00	0.00	
3,000.00	76.90	270.63	2,808.23	4.40	-402.78	402.80	11.00	11.00	0.00	
3,100.00	87.90	270.63	2,821.44	5.49	-501.74	501.77	11.00	11.00	0.00	
3,136.15	91.88	270.63	2,821.51	5.88	-537.89	537.92	11.00	11.00	0.00	
TL 2845' TVD @ 0VS										
3,141.83	92.50	270.63	2,821.30	5.94	-543.56	543.59	11.00	11.00	0.00	
LP Start 4344.34 hold at 3141.83 MD										
3,200.00	92.50	270.63	2,818.76	6.58	-601.67	601.70	0.00	0.00	0.00	
3,300.00	92.50	270.63	2,814.40	7.67	-701.57	701.61	0.00	0.00	0.00	
3,400.00	92.50	270.63	2,810.04	8.76	-801.47	801.51	0.00	0.00	0.00	
3,500.00	92.50	270.63	2,805.67	9.86	-901.36	901.42	0.00	0.00	0.00	
3,600.00	92.50	270.63	2,801.31	10.95	-1,001.26	1,001.32	0.00	0.00	0.00	
3,700.00	92.50	270.63	2,796.95	12.04	-1,101.16	1,101.23	0.00	0.00	0.00	
3,800.00	92.50	270.63	2,792.59	13.13	-1,201.06	1,201.13	0.00	0.00	0.00	
3,900.00	92.50	270.63	2,788.23	14.23	-1,300.96	1,301.04	0.00	0.00	0.00	
4,000.00	92.50	270.63	2,783.86	15.32	-1,400.86	1,400.94	0.00	0.00	0.00	
4,100.00	92.50	270.63	2,779.50	16.41	-1,500.76	1,500.85	0.00	0.00	0.00	
4,200.00	92.50	270.63	2,775.14	17.50	-1,600.66	1,600.75	0.00	0.00	0.00	
4,300.00	92.50	270.63	2,770.78	18.60	-1,700.56	1,700.66	0.00	0.00	0.00	
4,400.00	92.50	270.63	2,766.42	19.69	-1,800.45	1,800.56	0.00	0.00	0.00	
4,500.00	92.50	270.63	2,762.05	20.78	-1,900.35	1,900.47	0.00	0.00	0.00	
4,600.00	92.50	270.63	2,757.69	21.87	-2,000.25	2,000.37	0.00	0.00	0.00	
4,700.00	92.50	270.63	2,753.33	22.96	-2,100.15	2,100.28	0.00	0.00	0.00	
4,800.00	92.50	270.63	2,748.97	24.06	-2,200.05	2,200.18	0.00	0.00	0.00	
4,900.00	92.50	270.63	2,744.61	25.15	-2,299.95	2,300.09	0.00	0.00	0.00	
5,000.00	92.50	270.63	2,740.25	26.24	-2,399.85	2,399.99	0.00	0.00	0.00	
5,100.00	92.50	270.63	2,735.88	27.33	-2,499.75	2,499.90	0.00	0.00	0.00	
5,200.00	92.50	270.63	2,731.52	28.43	-2,599.65	2,599.80	0.00	0.00	0.00	
5,300.00	92.50	270.63	2,727.16	29.52	-2,699.54	2,699.71	0.00	0.00	0.00	
5,400.00	92.50	270.63	2,722.80	30.61	-2,799.44	2,799.61	0.00	0.00	0.00	
5,500.00	92.50	270.63	2,718.44	31.70	-2,899.34	2,899.51	0.00	0.00	0.00	
5,600.00	92.50	270.63	2,714.07	32.80	-2,999.24	2,999.42	0.00	0.00	0.00	
5,700.00	92.50	270.63	2,709.71	33.89	-3,099.14	3,099.32	0.00	0.00	0.00	
5,800.00	92.50	270.63	2,705.35	34.98	-3,199.04	3,199.23	0.00	0.00	0.00	
5,900.00	92.50	270.63	2,700.99	36.07	-3,298.94	3,299.13	0.00	0.00	0.00	
6,000.00	92.50	270.63	2,696.63	37.17	-3,398.84	3,399.04	0.00	0.00	0.00	
6,100.00	92.50	270.63	2,692.26	38.26	-3,498.73	3,498.94	0.00	0.00	0.00	
6,200.00	92.50	270.63	2,687.90	39.35	-3,598.63	3,598.85	0.00	0.00	0.00	
6,300.00	92.50	270.63	2,683.54	40.44	-3,698.53	3,698.75	0.00	0.00	0.00	
6,400.00	92.50	270.63	2,679.18	41.54	-3,798.43	3,798.66	0.00	0.00	0.00	
6,500.00	92.50	270.63	2,674.82	42.63	-3,898.33	3,898.56	0.00	0.00	0.00	
6,600.00	92.50	270.63	2,670.45	43.72	-3,998.23	3,998.47	0.00	0.00	0.00	
6,700.00	92.50	270.63	2,666.09	44.81	-4,098.13	4,098.37	0.00	0.00	0.00	
6,800.00	92.50	270.63	2,661.73	45.90	-4,198.03	4,198.28	0.00	0.00	0.00	



Phoenix Technology Services

Planning Report



Database:	CCR DB	Local Co-ordinate Reference:	Well #3H
Company:	COG Operating LLC	TVD Reference:	GL @ 3582.00usft
Project:	Eddy County, New Mexico (NAD 27 NME)	MD Reference:	GL @ 3582.00usft
Site:	Clydesdale 1 Fee	North Reference:	Grid
Well:	#3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #1 10-22-13		

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)
6,900.00	92.50	270.63	2,657.37	47.00	-4,297.93	4,298.18	0.00	0.00	0.00
7,000.00	92.50	270.63	2,653.01	48.09	-4,397.82	4,398.09	0.00	0.00	0.00
7,100.00	92.50	270.63	2,648.64	49.18	-4,497.72	4,497.99	0.00	0.00	0.00
7,200.00	92.50	270.63	2,644.28	50.27	-4,597.62	4,597.90	0.00	0.00	0.00
7,300.00	92.50	270.63	2,639.92	51.37	-4,697.52	4,697.80	0.00	0.00	0.00
7,400.00	92.50	270.63	2,635.56	52.46	-4,797.42	4,797.71	0.00	0.00	0.00
7,486.17	92.50	270.63	2,631.80	53.40	-4,883.50	4,883.79	0.00	0.00	0.00

TD at 7486.17 - PBHL-Clydesdale 1 #3H

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									
PBHL-Clydesdale 1 #3H	0.00	0.01	2,631.80	53.40	-4,883.50	615,573.70	465,508.60	32° 41' 32.13849 N	104° 26' 43.61382 W
- plan hits target center									
- Point									
PP-Clydesdale 1 #3H	0.00	360.00	2,694.78	1.97	-180.00	615,522.27	470,212.10	32° 41' 31.67538 N	104° 25' 48.57361 W
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,136.15	2,821.51	TL, 2845' TVD @ 0 VS		-2.50	270.63

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,300.92	2,300.92	0.00	0.00	KOP Start Build 11.00
3,141.83	2,821.30	5.94	-543.56	LP Start 4344.34 hold at 3141.83 MD
7,486.17	2,631.80	53.40	-4,883.50	TD at 7486.17



Project: Eddy County, New Mexico (NAD 27 NME)
Site: Clydesdale 1 Fee
Well: #3H
Wellbore: WB1
Design: Plan #1, 10-22-13



Azimuths to Grid North
True North: 0.05°
Magnetic North: 7.78°
Magnetic Field
Strength: 48569.4snT
Dip Angle: 60.41°
Date: 10/15/2013
Model: IGRF2010_14

WELL DETAILS

+N/-S	+E/-W	Northing	Ground Level	Easting	Latitude	Longitude
0.00	0.00	615520.30	3417.00	470392.10	32° 41' 31.65752 N	104° 25' 46.46725 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeal	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2300.92	0.00	0.00	2300.92	0.00	0.00	0.00	0.00	0.00		KOP Start Build 11.00
3	3141.83	92.50	270.63	2821.30	5.94	-543.56	11.00	270.63	543.59		LP Start 4344.34 hold at 3141.83 MD
4	7486.17	92.50	270.63	2831.80	53.40	-4883.50	0.00	0.00	4883.79	PBHL-Clydesdale 1 #3H	TD at 7486.17

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL-Clydesdale 1 #3H	2631.80	53.40	-4883.50	615573.70	465508.60	32° 41' 32.13849 N	104° 26' 43.61382 W	Point
- plan hits target center	2694.78	1.97	-180.00	615522.27	470212.10	32° 41' 31.67538 N	104° 25' 48.57361 W	Point
PP-Clydesdale 1 #3H								
- plan hits target center								

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 #3H, Grid North

Latitude: 32° 41' 31.65752 N
Longitude: 104° 25' 46.46725 W

Grid East: 470392.10
Grid North: 615520.30
Scale Factor: 1.000

Geomagnetic Model: IGRF2010_14

Sample Date: 15-Oct-13

Magnetic Declination: 7.73°

Dip Angle from Horizontal: 60.41°

Magnetic Field Strength: 48569

To convert a Magnetic Direction to a Grid Direction, Add 7.78°
To convert a Magnetic Direction to a True Direction, Add 7.73° East
To convert a True Direction to a Grid Direction, Add 0.05°

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
2821.51	3136.15	TL 2845' TVD @ 0 VS	-2.50	270.63

LEGEND

Plan #1 10-22-13

