

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

WELL API NO. 30-015-40262
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Falabella 31 Fee
8. Well Number 2H
9. OGRID Number 229137
10. Pool name or Wildcat Penasco Draw; SA-Yeso (Assoc) 50270

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 N : 150 feet from the SOUTH line and 1700 feet from the WEST line Section 31 Township 18S Range 26E NMPM County EDDY	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3432'	

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 SHL & BHL** ☒

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 Operating LLC submitted APD for this well at this location:

SHL: 150 FSL 1700 FWL, Unit N

BHL: 330 FNL 1700 FWL, Unit C

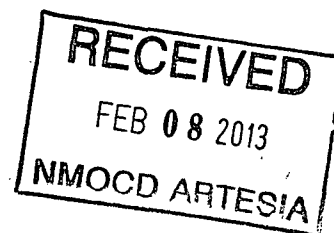
COG Operating LLC respectfully requests permission to change the SHL & BHL to:

SHL: 150 FSL 1590 FWL, Unit N

BHL: 330 FNL 1467 FWL, Unit C

Revision is due to skewed section and avoiding a non-standard location.

A revised Directional Plan and C102 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 TITLE **Permitting Tech** DATE **02/06/2013**

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 **2/14/2013**

Conditions of Approval (if any):

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

RECEIVED

FEB 08 2013

NMOCD ARTESIA

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-40262	Pool Code 50270	Pool Name Penasco Draw; SA-Yeso (Assoc)
Property Code	Property Name FALABELLA 31 FEE	Well Number 2H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3428'

Surface Location

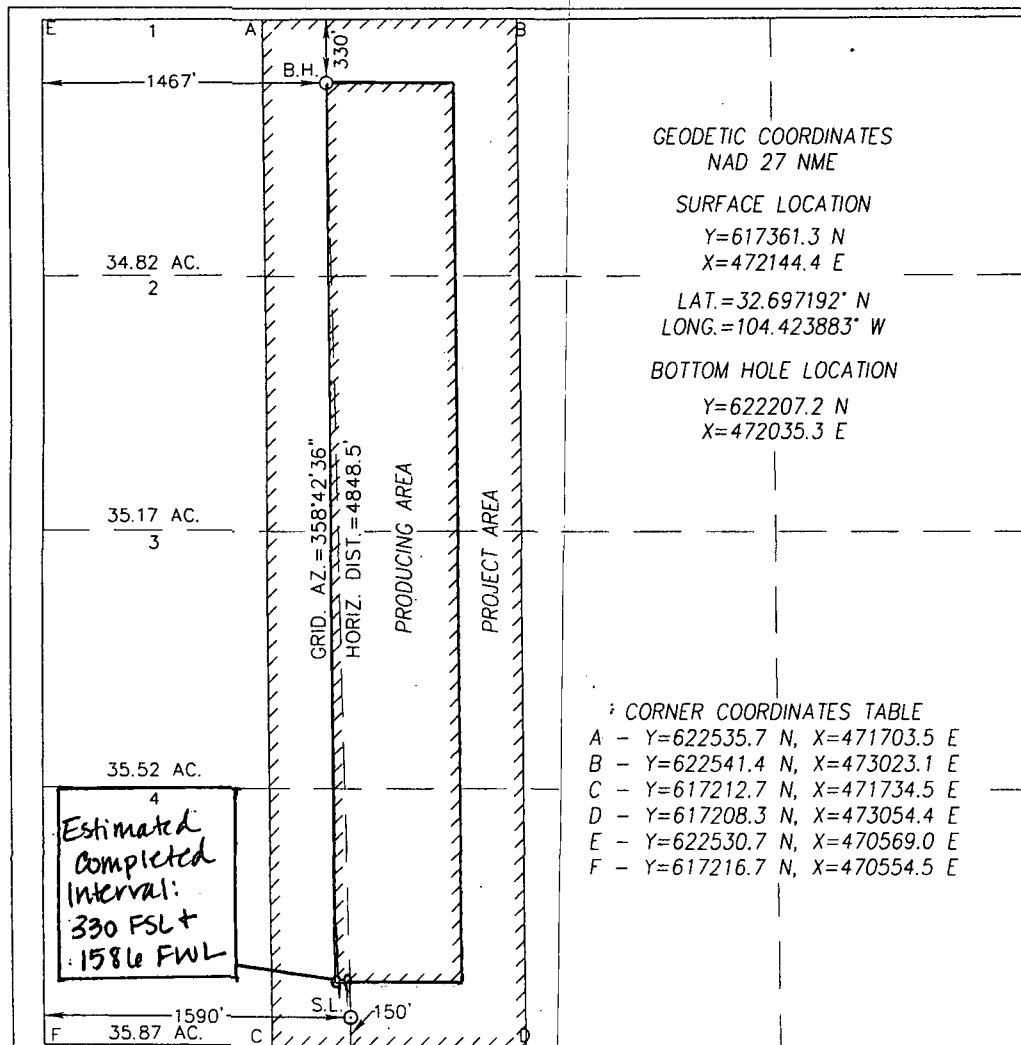
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	31	18-S	26-E		150	SOUTH	1590	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	31	18-S	26-E		330	NORTH	1467	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
1.60			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



GEODETIC COORDINATES
NAD 27 NME

SURFACE LOCATION

Y=617361.3 N

X=472144.4 E

LAT.=32.697192° N

LONG.=104.423883° W

BOTTOM HOLE LOCATION

Y=622207.2 N

X=472035.3 E

CORNER COORDINATES TABLE

A - Y=622535.7 N, X=471703.5 E
B - Y=622541.4 N, X=473023.1 E
C - Y=617212.7 N, X=471734.5 E
D - Y=617208.3 N, X=473054.4 E
E - Y=622530.7 N, X=470569.0 E
F - Y=617216.7 N, X=470554.5 E

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

[Signature]
Signature

2-6-13

Date

Kelly J. Holly

Printed Name

kholly@concho.com

E-mail Address

SURVEYOR CERTIFICATION

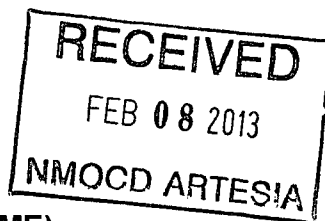
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

NOVEMBER 29, 2012

Date of Survey

Signature & Seal of Professional Surveyor:

[Signature]
RONALD J. EIDSON
NEW MEXICO
3239
12/6/2012
Certificate Number 12641
Gail Q. Eidson
Professional Surveyor Ronald J. Eidson 3239
AF JWSC W.O.: 12.11.1716



COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Falabella 31 Fee #2H

Wellbore #1

Plan: Plan #2 01-31-13

Surface: 150' FSL, 1590' FWL, Sec 31, T18S, R26E, Unit N

PP: 330' FSL, 1586' FWL, Sec 31, T18S, R26E, Unit N

BHL: 330' FNL, 1467' FWL, Sec 31, T18S, R26E, Unit C

Standard Planning Report

31 January, 2013





Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3428.00usft
Project:	Eddy County, New Mexico (NAD 27 NME)	MD Reference:	GL @ 3428.00usft
Site:	Falabella 31 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2: 01-31-13		

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:	Falabella 31 Fee				
Site Position:		Northing:	617,359.30 usft	Latitude:	32° 41' 49.8761 N
From:	Map	Easting:	472,777.20 usft	Longitude:	104° 25' 18.5752 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.05 °

Well	#2H					
Well Position	+N/-S	2.00 usft	Northing:	617,361.30 usft	Latitude:	32° 41' 49.8906 N
	+E/-W	-632.80 usft	Easting:	472,144.40 usft	Longitude:	104° 25' 25.9805 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,428.00 usft

Wellbore:	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010_14	01/30/13	7.81	60.44	48,643

Design:	Plan #2: 01-31-13				
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	358.71	

Plan Sections									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO
(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
2,310.96	0.00	0.00	2,310.96	0.00	0.00	0.00	0.00	0.00	0.00
3,151.87	92.50	358.71	2,831.34	543.45	-12.24	11.00	11.00	0.00	358.71
7,459.51	92.50	358.71	2,643.44	4,845.90	-109.10	0.00	0.00	0.00	0.00 PBHL-Falabella 31 #2



Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #2H
Company:	G.O.G. Operating LLC	TVD Reference:	GL @ 3428.00usft
Project:	Eddy County, New Mexico (NAD 27/NME)	MD Reference:	GL @ 3428.00usft
Site:	Falabella 31 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2.01:31-13		

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	
2,310.96	0.00	0.00	2,310.96	0.00	0.00	0.00	0.00	0.00	0.00	
KOP Start Build: 11.00										
2,400.00	9.79	358.71	2,399.57	7.59	-0.17	7.59	11.00	11.00	0.00	
2,500.00	20.79	358.71	2,495.88	33.92	-0.76	33.93	11.00	11.00	0.00	
2,600.00	31.79	358.71	2,585.39	78.14	-1.76	78.16	11.00	11.00	0.00	
2,700.00	42.79	358.71	2,664.82	138.62	-3.12	138.66	11.00	11.00	0.00	
2,757.61	49.13	358.71	2,704.85	180.01	-4.05	180.05	11.00	11.00	0.00	
PP: Falabella 31 #2H										
2,800.00	53.79	358.71	2,731.25	213.15	-4.80	213.20	11.00	11.00	0.00	
2,900.00	64.79	358.71	2,782.24	298.97	-6.73	299.05	11.00	11.00	0.00	
3,000.00	75.79	358.71	2,815.90	392.95	-8.85	393.05	11.00	11.00	0.00	
3,100.00	86.79	358.71	2,831.02	491.62	-11.07	491.74	11.00	11.00	0.00	
3,143.41	91.57	358.71	2,831.64	535.00	-12.04	535.14	11.00	11.00	0.00	
Target Center Line										
3,151.87	92.50	358.71	2,831.34	543.45	-12.24	543.59	11.00	11.00	0.00	
LP Start 4307.64 hold at 3151.87 MD										
3,200.00	92.50	358.71	2,829.24	591.52	-13.32	591.67	0.00	0.00	0.00	
3,300.00	92.50	358.71	2,824.88	691.40	-15.57	691.58	0.00	0.00	0.00	
3,400.00	92.50	358.71	2,820.51	791.28	-17.81	791.48	0.00	0.00	0.00	
3,500.00	92.50	358.71	2,816.15	891.16	-20.06	891.39	0.00	0.00	0.00	
3,600.00	92.50	358.71	2,811.79	991.04	-22.31	991.29	0.00	0.00	0.00	
3,700.00	92.50	358.71	2,807.43	1,090.92	-24.56	1,091.20	0.00	0.00	0.00	
3,800.00	92.50	358.71	2,803.07	1,190.80	-26.81	1,191.10	0.00	0.00	0.00	
3,900.00	92.50	358.71	2,798.70	1,290.68	-29.06	1,291.01	0.00	0.00	0.00	
4,000.00	92.50	358.71	2,794.34	1,390.56	-31.31	1,390.91	0.00	0.00	0.00	
4,100.00	92.50	358.71	2,789.98	1,490.44	-33.56	1,490.82	0.00	0.00	0.00	
4,200.00	92.50	358.71	2,785.62	1,590.32	-35.80	1,590.72	0.00	0.00	0.00	
4,300.00	92.50	358.71	2,781.26	1,690.20	-38.05	1,690.63	0.00	0.00	0.00	
4,400.00	92.50	358.71	2,776.89	1,790.08	-40.30	1,790.53	0.00	0.00	0.00	
4,500.00	92.50	358.71	2,772.53	1,889.96	-42.55	1,890.44	0.00	0.00	0.00	
4,600.00	92.50	358.71	2,768.17	1,989.84	-44.80	1,990.34	0.00	0.00	0.00	
4,700.00	92.50	358.71	2,763.81	2,089.72	-47.05	2,090.25	0.00	0.00	0.00	
4,800.00	92.50	358.71	2,759.45	2,189.60	-49.30	2,190.15	0.00	0.00	0.00	
4,900.00	92.50	358.71	2,755.08	2,289.48	-51.54	2,290.06	0.00	0.00	0.00	
5,000.00	92.50	358.71	2,750.72	2,389.36	-53.79	2,389.96	0.00	0.00	0.00	
5,100.00	92.50	358.71	2,746.36	2,489.24	-56.04	2,489.87	0.00	0.00	0.00	
5,200.00	92.50	358.71	2,742.00	2,589.11	-58.29	2,589.77	0.00	0.00	0.00	
5,300.00	92.50	358.71	2,737.64	2,688.99	-60.54	2,689.68	0.00	0.00	0.00	
5,400.00	92.50	358.71	2,733.27	2,788.87	-62.79	2,789.58	0.00	0.00	0.00	
5,500.00	92.50	358.71	2,728.91	2,888.75	-65.04	2,889.49	0.00	0.00	0.00	
5,600.00	92.50	358.71	2,724.55	2,988.63	-67.29	2,989.39	0.00	0.00	0.00	
5,700.00	92.50	358.71	2,720.19	3,088.51	-69.53	3,089.29	0.00	0.00	0.00	
5,800.00	92.50	358.71	2,715.83	3,188.39	-71.78	3,189.20	0.00	0.00	0.00	
5,900.00	92.50	358.71	2,711.46	3,288.27	-74.03	3,289.10	0.00	0.00	0.00	
6,000.00	92.50	358.71	2,707.10	3,388.15	-76.28	3,389.01	0.00	0.00	0.00	
6,100.00	92.50	358.71	2,702.74	3,488.03	-78.53	3,488.91	0.00	0.00	0.00	
6,200.00	92.50	358.71	2,698.38	3,587.91	-80.78	3,588.82	0.00	0.00	0.00	
6,300.00	92.50	358.71	2,694.02	3,687.79	-83.03	3,688.72	0.00	0.00	0.00	
6,400.00	92.50	358.71	2,689.66	3,787.67	-85.28	3,788.63	0.00	0.00	0.00	
6,500.00	92.50	358.71	2,685.29	3,887.55	-87.52	3,888.53	0.00	0.00	0.00	
6,600.00	92.50	358.71	2,680.93	3,987.43	-89.77	3,988.44	0.00	0.00	0.00	
6,700.00	92.50	358.71	2,676.57	4,087.31	-92.02	4,088.34	0.00	0.00	0.00	
6,800.00	92.50	358.71	2,672.21	4,187.19	-94.27	4,188.25	0.00	0.00	0.00	



Phoenix Technology Services
Planning Report



Database:	GCR-DB	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3428.00usft
Project:	Eddy County - New Mexico (NAD 27-NME)	MD Reference:	GL @ 3428.00usft
Site:	Falabella 31 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2, 01-31-13		

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	358.71	2,667.85	4,287.07	-96.52	4,288.15	0.00	0.00	0.00
7,000.00	92.50	358.71	2,663.48	4,386.95	-98.77	4,388.06	0.00	0.00	0.00
7,100.00	92.50	358.71	2,659.12	4,486.83	-101.02	4,487.96	0.00	0.00	0.00
7,200.00	92.50	358.71	2,654.76	4,586.71	-103.26	4,587.87	0.00	0.00	0.00
7,300.00	92.50	358.71	2,650.40	4,686.58	-105.51	4,687.77	0.00	0.00	0.00
7,400.00	92.50	358.71	2,646.04	4,786.46	-107.76	4,787.68	0.00	0.00	0.00
7,459.51	92.50	358.71	2,643.44	4,845.90	-109.10	4,847.13	0.00	0.00	0.00
TD at 7459.51 - PBHL-Falabella 31 #2H									

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-Falabella 31 #2H	0.00	0.00	2,643.44	4,845.90	-109.10	622,207.20	472,035.30	32° 42' 37.8428 N	104° 25' 27.3059 W
- plan hits target center									
- Point									
PP-Falabella 31 #2H	0.00	360.00	2,704.85	180.00	-4.05	617,541.30	472,140.35	32° 41' 51.6718 N	104° 25' 26.0297 W
- plan hits target center									
- Point									

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,143.41	2,831.64	Target Center Line		-2.50	359.34

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
2,310.96	2,310.96	0.00	0.00	KOP Start Build 11.00
3,151.87	2,831.34	543.45	-12.24	LP Start 4307.64 hold at 3151.87 MD
7,459.51	2,643.44	4,845.90	-109.10	TD at 7459.51



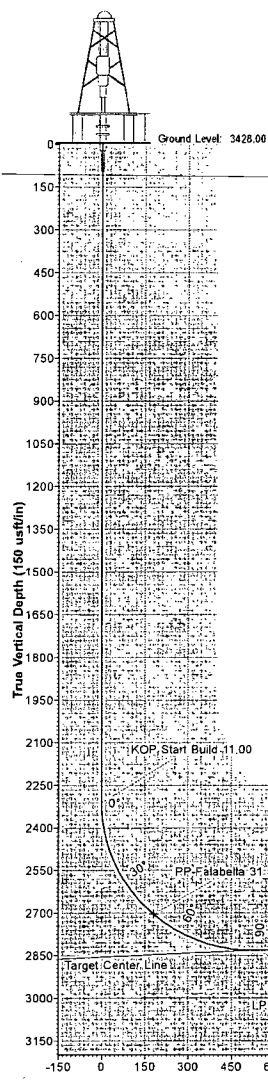
Project: Eddy County, New Mexico (NAD 27 NME)
Site: Falabella 31 Fee
Well: #2H
Wellbore: Wellbore #1
Design: Plan #2 01-31-13



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: 0.05°
Magnetic North: 7.86°
Magnetic Field
Strength: 48643.2snT
Dip Angle: 60.44°
Date: 01/30/2013
Model: IGRF2010_14



WELL DETAILS									
-N/S	+E/W	Northing	Ground Level	Easting	Latitude	Longitude			
0.00	0.00	617361.30	3428.00	472144.40	32° 41' 49.8906 N	104° 25' 25.9805 W			

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dleg	TFace	V Sect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2310.96	0.00	0.00	2310.96	0.00	0.00	0.00	0.00	0.00
3	3151.87	92.50	358.71	2831.34	543.45	-12.24	11.00	358.71	543.59
4	7459.51	92.50	358.71	2643.44	4845.90	-109.10	0.00	0.00	4847.13

DESIGN TARGET DETAILS									
Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude	Shape	Annotation
PBHL-Falabella 31 #2H	2643.44	-4845.90	-109.10	622207.20	472035.30	32° 42' 37.8428 N	104° 25' 27.3059 W	Point	
PP-Falabella 31 #2H	2704.85	-180.00	-4.05	617541.30	472140.35	32° 41' 51.6718 N	104° 25' 28.0297 W	Point	

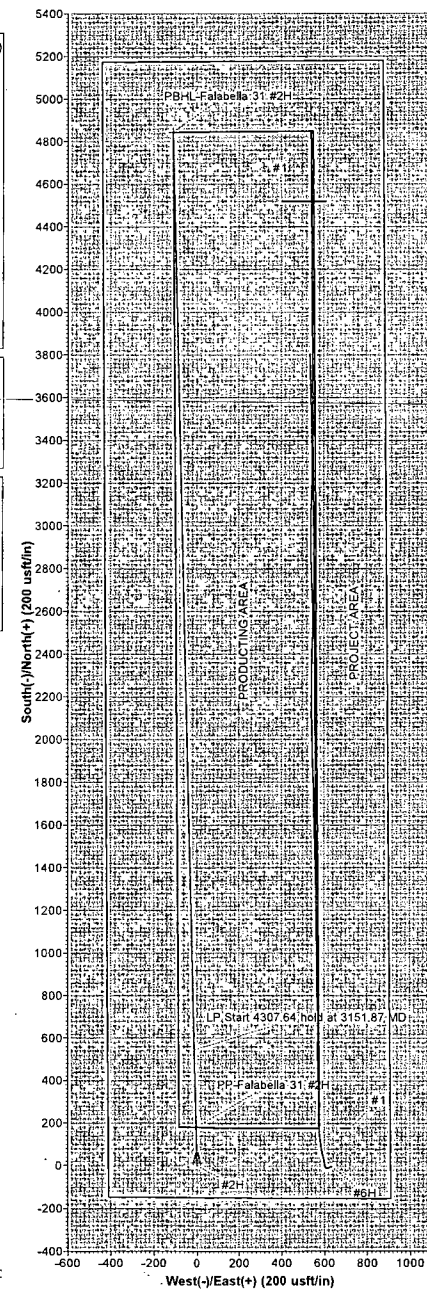
PROJECT DETAILS: Eddy County, New Mexico (NAD 27 NME)									
Geodetic System: US State Plane 1927 (Exact solution)									
Datum: NAD 1927 (NADCON CONUS)									
Ellipsoid: Clarke 1866									
Zone: New Mexico East 3001									
System Datum: Mean Sea Level									

SITE DETAILS: Falabella 31 Fee									
Site Centre Northing: 617359.30									
Easting: 472777.20									
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 #2H, Grid North									
Latitude: 32° 41' 49.8906 N									
Longitude: 104° 25' 25.9805 W									
Grid East: 472144.40									
Grid North: 617361.30									
Scale Factor: 1.000									
Geomagnetic Model: IGRF2010_14									
Sample Date: 30-Jan-13									
Magnetic Declination: 7.81°									
Dip Angle from Horizontal: 60.44°									
Magnetic Field Strength: 48643									
To convert a Magnetic Direction to a Grid Direction, Add 7.86°									
To convert a Magnetic Direction to a True Direction, Add 7.81° East									
To convert a True Direction to a Grid Direction, Add 0.05°									

FORMATION TOP DETAILS									
TVDPath	MDPath	Formation	DipAngle	DipDir					
2831.64	3143.41	Target Center Line	-2.50	359.34					

LEGEND									
— #1, Wellbore #1, Surveys V0									
— #6H, Wellbore #1 / Job #1310091, Plan #4 01-28-2013 V0									
— #6H, Wellbore #1 / Job #1310091, Surveys (JW 4) V0									
— #1, Wellbore #1, Surveys V0									
— Plan #2 01-31-13									



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

RECEIVED
OIL CONSERVATION DIVISION
FEB 08 2013
1220 South St. Francis Dr.
Santa Fe, NM 87505
INMOCD ARTESIA

WELL API NO. 30-015-40262
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Falabella 31 Fee
8. Well Number 2H
9. OGRID Number 229137
10. Pool name or Wildcat Penasco Draw; SA-Yeso (Assoc) 50270

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 N : 150 feet from the SOUTH line and 1700 feet from the WEST line Section 31 Township 18S Range 26E NMPM County EDDY	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3432'	

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 2311' MD and kick off and drill curve to 2831' TVD 3152' MD. Drill a 7-7/8" lateral to new BHL @ 2643' TVD 7460' 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:

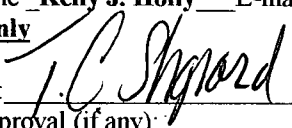
Rig Release Date:

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

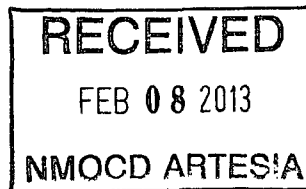
SIGNATURE  TITLE **Permitting Tech** DATE **02/06/2013**

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 **2/6/2013**

Conditions of Approval (if any):



COG Operating LLC

**Eddy County, New Mexico (NAD 27 NME)
Falabella 31 Fee #2H**

Wellbore #1

Plan: Plan #2 01-31-13

Surface: 150' FSL, 1590' FWL, Sec 31, T18S, R26E, Unit N

PP: 330' FSL, 1586' FWL, Sec 31, T18S, R26E, Unit N

BHL: 330' FNL, 1467' FWL, Sec 31, T18S, R26E, Unit C

Standard Planning Report

31 January, 2013





Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3428.00usft
Project:	Eddy County New Mexico (NAD 27 NME)	MD Reference:	GL @ 3428.00usft
Site:	Falabella 31 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 01-31-13		

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	Falabella 31 Fee		
Site Position:		Northing:	617,359.30 usft
From:	Map	Easting:	472,777.20 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 41' 49.8761 N
		Longitude:	104° 25' 18.5752 W
		Grid Convergence:	-0.05 °

Well	#2H		
Well Position	+N/-S	2.00 usft	Northing:
	+E/-W	-632.80 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
			3,428.00 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010_14	01/30/13	(°)	(°)	(nT)
			7.81	60.44	48,643

Design	Plan #2 01-31-13		
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
			358.71

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	
2,310.96	0.00	0.00	2,310.96	0.00	0.00	0.00	0.00	0.00	0.00	
3,151.87	92.50	358.71	2,831.34	543.45	-12.24	11.00	11.00	0.00	358.71	
7,459.51	92.50	358.71	2,643.44	4,845.90	-109.10	0.00	0.00	0.00	0.00	PBHL-Falabella 31 #2



Phoenix Technology Services
Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3428.00usft
Project:	Eddy County, New Mexico (NAD 27 NME)	MD Reference:	GL @ 3428.00usft
Site:	Falabella 31 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 01-31-13		

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	
2,310.96	0.00	0.00	2,310.96	0.00	0.00	0.00	0.00	0.00	0.00	
KOP Start Build 11.00										
2,400.00	9.79	358.71	2,399.57	7.59	-0.17	7.59	11.00	11.00	0.00	
2,500.00	20.79	358.71	2,495.88	33.92	-0.76	33.93	11.00	11.00	0.00	
2,600.00	31.79	358.71	2,585.39	78.14	-1.76	78.16	11.00	11.00	0.00	
2,700.00	42.79	358.71	2,664.82	138.62	-3.12	138.66	11.00	11.00	0.00	
2,757.61	49.13	358.71	2,704.85	180.01	-4.05	180.05	11.00	11.00	0.00	
PP-Falabella 31 #2H										
2,800.00	53.79	358.71	2,731.25	213.15	-4.80	213.20	11.00	11.00	0.00	
2,900.00	64.79	358.71	2,782.24	298.97	-6.73	299.05	11.00	11.00	0.00	
3,000.00	75.79	358.71	2,815.90	392.95	-8.85	393.05	11.00	11.00	0.00	
3,100.00	86.79	358.71	2,831.02	491.62	-11.07	491.74	11.00	11.00	0.00	
3,143.41	91.57	358.71	2,831.64	535.00	-12.04	535.14	11.00	11.00	0.00	
Target Center Line										
3,151.87	92.50	358.71	2,831.34	543.45	-12.24	543.59	11.00	11.00	0.00	
LP Start 4307.64 hold at 3151.87 MD										
3,200.00	92.50	358.71	2,829.24	591.52	-13.32	591.67	0.00	0.00	0.00	
3,300.00	92.50	358.71	2,824.88	691.40	-15.57	691.58	0.00	0.00	0.00	
3,400.00	92.50	358.71	2,820.51	791.28	-17.81	791.48	0.00	0.00	0.00	
3,500.00	92.50	358.71	2,816.15	891.16	-20.06	891.39	0.00	0.00	0.00	
3,600.00	92.50	358.71	2,811.79	991.04	-22.31	991.29	0.00	0.00	0.00	
3,700.00	92.50	358.71	2,807.43	1,090.92	-24.56	1,091.20	0.00	0.00	0.00	
3,800.00	92.50	358.71	2,803.07	1,190.80	-26.81	1,191.10	0.00	0.00	0.00	
3,900.00	92.50	358.71	2,798.70	1,290.68	-29.06	1,291.01	0.00	0.00	0.00	
4,000.00	92.50	358.71	2,794.34	1,390.56	-31.31	1,390.91	0.00	0.00	0.00	
4,100.00	92.50	358.71	2,789.98	1,490.44	-33.56	1,490.82	0.00	0.00	0.00	
4,200.00	92.50	358.71	2,785.62	1,590.32	-35.80	1,590.72	0.00	0.00	0.00	
4,300.00	92.50	358.71	2,781.26	1,690.20	-38.05	1,690.63	0.00	0.00	0.00	
4,400.00	92.50	358.71	2,776.89	1,790.08	-40.30	1,790.53	0.00	0.00	0.00	
4,500.00	92.50	358.71	2,772.53	1,889.96	-42.55	1,890.44	0.00	0.00	0.00	
4,600.00	92.50	358.71	2,768.17	1,989.84	-44.80	1,990.34	0.00	0.00	0.00	
4,700.00	92.50	358.71	2,763.81	2,089.72	-47.05	2,090.25	0.00	0.00	0.00	
4,800.00	92.50	358.71	2,759.45	2,189.60	-49.30	2,190.15	0.00	0.00	0.00	
4,900.00	92.50	358.71	2,755.08	2,289.48	-51.54	2,290.06	0.00	0.00	0.00	
5,000.00	92.50	358.71	2,750.72	2,389.36	-53.79	2,389.96	0.00	0.00	0.00	
5,100.00	92.50	358.71	2,746.36	2,489.24	-56.04	2,489.87	0.00	0.00	0.00	
5,200.00	92.50	358.71	2,742.00	2,589.11	-58.29	2,589.77	0.00	0.00	0.00	
5,300.00	92.50	358.71	2,737.64	2,688.99	-60.54	2,689.68	0.00	0.00	0.00	
5,400.00	92.50	358.71	2,733.27	2,788.87	-62.79	2,789.58	0.00	0.00	0.00	
5,500.00	92.50	358.71	2,728.91	2,888.75	-65.04	2,889.49	0.00	0.00	0.00	
5,600.00	92.50	358.71	2,724.55	2,988.63	-67.29	2,989.39	0.00	0.00	0.00	
5,700.00	92.50	358.71	2,720.19	3,088.51	-69.53	3,089.29	0.00	0.00	0.00	
5,800.00	92.50	358.71	2,715.83	3,188.39	-71.78	3,189.20	0.00	0.00	0.00	
5,900.00	92.50	358.71	2,711.46	3,288.27	-74.03	3,289.10	0.00	0.00	0.00	
6,000.00	92.50	358.71	2,707.10	3,388.15	-76.28	3,389.01	0.00	0.00	0.00	
6,100.00	92.50	358.71	2,702.74	3,488.03	-78.53	3,488.91	0.00	0.00	0.00	
6,200.00	92.50	358.71	2,698.38	3,587.91	-80.78	3,588.82	0.00	0.00	0.00	
6,300.00	92.50	358.71	2,694.02	3,687.79	-83.03	3,688.72	0.00	0.00	0.00	
6,400.00	92.50	358.71	2,689.66	3,787.67	-85.28	3,788.63	0.00	0.00	0.00	
6,500.00	92.50	358.71	2,685.29	3,887.55	-87.52	3,888.53	0.00	0.00	0.00	
6,600.00	92.50	358.71	2,680.93	3,987.43	-89.77	3,988.44	0.00	0.00	0.00	
6,700.00	92.50	358.71	2,676.57	4,087.31	-92.02	4,088.34	0.00	0.00	0.00	
6,800.00	92.50	358.71	2,672.21	4,187.19	-94.27	4,188.25	0.00	0.00	0.00	



Phoenix Technology Services
Planning Report



Database:	GCR-DB	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3428.00usft
Project:	Eddy County, New Mexico (NAD 27 NME)	MD Reference:	GL @ 3428.00usft
Site:	Falabella 31 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2, 01-31-13		

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	358.71	2,667.85	4,287.07	-96.52	4,288.15	0.00	0.00	0.00	
7,000.00	92.50	358.71	2,663.48	4,386.95	-98.77	4,388.06	0.00	0.00	0.00	
7,100.00	92.50	358.71	2,659.12	4,486.83	-101.02	4,487.96	0.00	0.00	0.00	
7,200.00	92.50	358.71	2,654.76	4,586.71	-103.26	4,587.87	0.00	0.00	0.00	
7,300.00	92.50	358.71	2,650.40	4,686.58	-105.51	4,687.77	0.00	0.00	0.00	
7,400.00	92.50	358.71	2,646.04	4,786.46	-107.76	4,787.68	0.00	0.00	0.00	
7,459.51	92.50	358.71	2,643.44	4,845.90	-109.10	4,847.13	0.00	0.00	0.00	
TD at 7459.51 - PBHL-Falabella 31 #2H										

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-Falabella 31 #2H	- plan hits target center	0.00	0.00	2,643.44	4,845.90	-109.10	622,207.20	472,035.30	32° 42' 37.8428 N	104° 25' 27.3059 W
	- Point									
PP-Falabella 31 #2H	- plan hits target center	0.00	360.00	2,704.85	180.00	-4.05	617,541.30	472,140.35	32° 41' 51.6718 N	104° 25' 26.0297 W
	- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,143.41	2,831.64	Target Center Line		-2.50	359.34	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,310.96	2,310.96	0.00	0.00	KOP Start Build 11.00	
3,151.87	2,831.34	543.45	-12.24	LP Start 4307.64 hold at 3151.87 MD	
7,459.51	2,643.44	4,845.90	-109.10	TD at 7459.51	



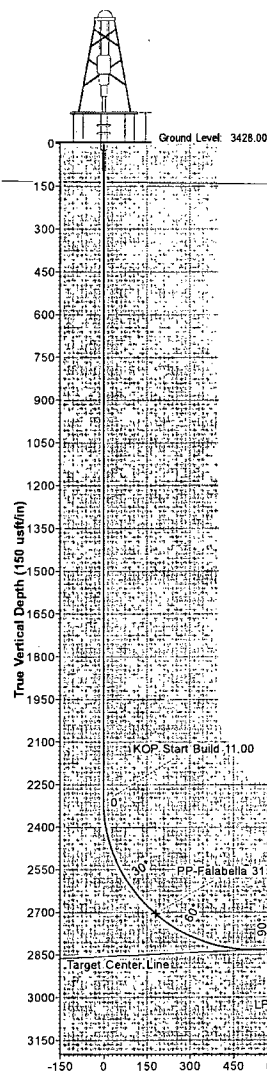
Project: Eddy County, New Mexico (NAD 27 NME)
Site: Falabella 31 Fee
Well: #2H
Wellbore: Wellbore #1
Design: Plan #2 01-31-13



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: 0.05°
Magnetic North: 7.86°
Magnetic Field
Strength: 48643.2snT
Dip Angle: 60.44°
Date: 01/30/2013
Model: IGRF2010_14



WELL DETAILS									
	+N/S	+E/W	Northing	Ground Level	Easting	Latitude	Longitude		
	0.00	0.00	617361.30	3428.00	472144.40	32° 41' 49.8906 N	104° 25' 25.9805 W		

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2310.96	0.00	0.00	2310.96	0.00	0.00	0.00	0.00	0.00		KOP Start Build 11.00
3	3151.87	92.50	358.71	2831.34	543.45	-12.24	11.00	358.71	543.50		LP Start 4307.64 hold at 3151.87 MD
4	7459.51	92.50	358.71	2643.44	4845.90	-109.10	0.00	0.00	4847.13	PBHL-Falabella 31 #2H	TD at 7459.51

DESIGN TARGET DETAILS									
Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude	Shape	
PBHL-Falabella 31 #2H	2643.44	4845.90	-109.10	622207.20	472035.30	32° 42' 37.8428 N	104° 25' 27.3059 W	Point	
PP-Falabella 31 #2H	plan hits target center								
	2704.85	180.00	-4.05	617541.30	472140.35	32° 41' 51.6718 N	104° 25' 26.0297 W	Point	
	plan hits target center								

PROJECT DETAILS: Eddy County, New Mexico (NAD 27 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: Falabella 31 Fee
Site Centre Northing: 617359.30
Easting: 472777.20
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 #2H, Grid North
Latitude: 32° 41' 49.8906 N
Longitude: 104° 25' 25.9805 W
Grid East: 472144.40
Grid North: 617361.30
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 30-Jan-13
Magnetic Declination: 7.81°
Dip Angle from Horizontal: 60.44°
Magnetic Field Strength: 48643
To convert a Magnetic Direction to a Grid Direction, Add 7.86°
To convert a Magnetic Direction to a True Direction, Add 7.81° East
To convert a True Direction to a Grid Direction, Add 0.05°

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	DipAngle
2831.64	3143.41	Target Center Line	-2.50

LEGEND
— #1, Wellbore #1, Surveys V0
— #6H, Wellbore #1 / Job #1310091, Plan #4 01-28-2013 V0
— #6H, Wellbore #1 / Job #1310091, Surveys (JW 4) V0
— #1, Wellbore #1, Surveys V0
— Plan #2 01-31-13

