

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. 30-015-39406
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Arabian 6 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 <u>N</u> : <u>150</u> feet from the <u>SOUTH</u> line and <u>1700</u> feet from the <u>WEST</u> line Section <u>6</u> Township <u>19S</u> Range <u>26E</u> NMPM County <u>EDDY</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3373'	

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, Lot 3

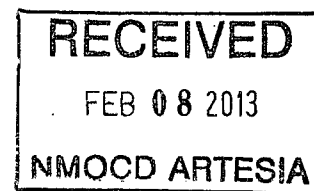
COG Operating LLC respectfully requests permission to change the SHL & BHL to:

SHL: 150 FSL 1615 FWL, Unit N

BHL: 330 FNL 1517 FWL, Unit C, Lot 3

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 [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: [Signature] TITLE Geologist DATE 2/11/2013

Conditions of Approval (if any):

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

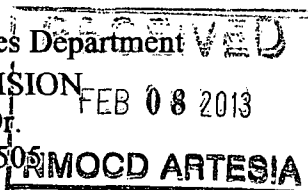
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office



AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-39406	Pool Code 50270	Pool Name Penasco Draw; SA-Yeso (Assoc)
Property Code	Property Name ARABIAN 6 FEE	Well Number 2H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3374

Surface Location

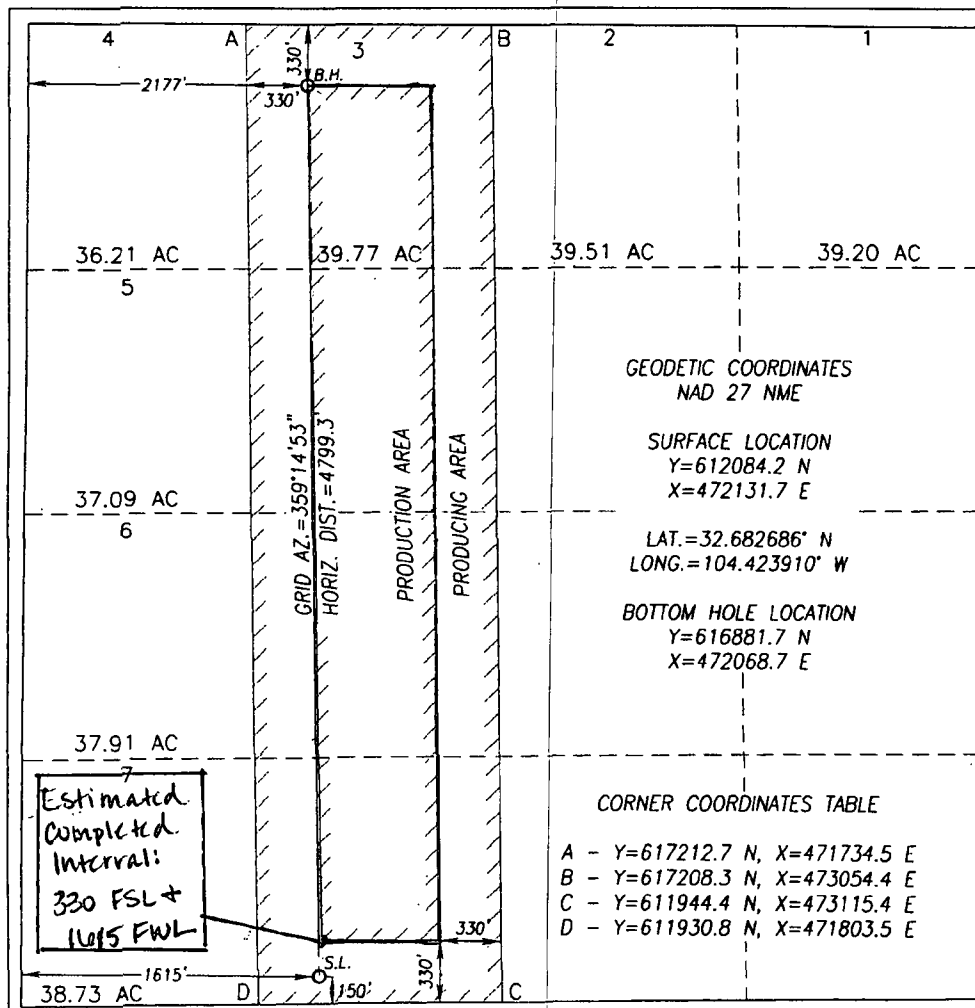
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	6	19-S	26-E		150	SOUTH	1615	WEST	EDDY

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
3	6	19-S	26-E		330	NORTH	1517	WEST	EDDY

Dedicated Acres 159.77	Joint or Infill	Consolidation Code	Order No.
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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



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 unEDDYsed 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: *Kelly J. Holly* Date: 2-6-13
Printed Name: Kelly J. Holly
E-mail Address: kholly@concho.com

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.

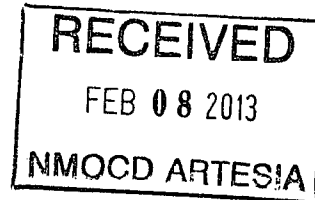
NOVEMBER 30, 2012

Date of Survey: 12/12/2012
Signature & Seal of Professional Surveyor: *Ronald J. Eidson*
Certificate Number: Gary G. Eidson 12641, Ronald J. Eidson 3239
BKL JWSC W.O.: 12.11.1990



COG Operating LLC

**Eddy County, New Mexico (NAD 27)
Arabian 6 Fee #2H**



Wellbore #1

Plan: Plan #1 01-30-13

Surface: 150' FSL, 1615' FWL, Sec 6, T19S, R26E, Unit N

PP: 330' FSL, 1615' FWL, Sec 6, T19S, R26E, Unit N

BHL: 330' FNL, 1517' FWL, Sec 6, T19S, R26E, Lot 3

Standard Planning Report

30 January, 2013





Phoenix Technology Services
Planning Report



Database:	GCR-DB	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3374.00usft
Project:	Eddy County, New Mexico (NAD 27)	MD Reference:	GL @ 3374.00usft
Site:	Arabian 6 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 01-30-13		

Project	Eddy County, New Mexico (NAD 27)		
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	Arabian 6 Fee		
Site Position:		Northing:	612,084.20 usft
From:	Map	Easting:	472,131.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 40' 57.6703 N
		Longitude:	104° 25' 26.0764 W
		Grid Convergence:	-0.05 °

Well	#2H		
Well Position	+N-S	0.00 usft	Northing: 612,084.20 usft
	+E-W	0.00 usft	Easting: 472,131.70 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level: 3,374.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	01/30/13	7.81
			Dip Angle
			60.42
			Field Strength
			48,635

Design	Plan #1 01-30-13		
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
			Direction
			(°)
			359.25

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(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	
2,409.58	0.00	0.00	2,409.58	0.00	0.00	0.00	0.00	0.00	0.00	
3,232.31	90.50	359.25	2,930.44	525.37	-6.90	11.00	11.00	0.00	359.25	
7,504.97	90.50	359.25	2,893.15	4,797.50	-63.00	0.00	0.00	0.00	0.00	PBHL-Arabian 6 #2H



Phoenix Technology Services
Planning Report



Database	GCR-DB	Local Co-ordinate/Reference	Well #2H
Company	COG Operating LLC	TVD Reference:	GL @ 3374.00usft
Project	Eddy County, New Mexico (NAD 27)	MD Reference:	GL @ 3374.00usft
Site	Arabian 6 Fee	North Reference:	Grid
Well	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore	Wellbore #1		
Design	Plan #1, 01-30-13		

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	
2,409.58	0.00	0.00	2,409.58	0.00	0.00	0.00	0.00	0.00	0.00	
KOP-Start Build 11.00										
2,500.00	9.95	359.25	2,499.55	7.83	-0.10	7.83	11.00	11.00	0.00	
2,600.00	20.95	359.25	2,595.79	34.42	-0.45	34.42	11.00	11.00	0.00	
2,700.00	31.95	359.25	2,685.19	78.88	-1.04	78.89	11.00	11.00	0.00	
2,800.00	42.95	359.25	2,764.46	139.58	-1.83	139.59	11.00	11.00	0.00	
2,856.20	49.13	359.25	2,803.45	180.01	-2.36	180.02	11.00	11.00	0.00	
PP-Arabian 6 #2H										
2,900.00	53.95	359.25	2,830.69	214.29	-2.81	214.31	11.00	11.00	0.00	
3,000.00	64.95	359.25	2,881.45	300.27	-3.94	300.29	11.00	11.00	0.00	
3,100.00	75.95	359.25	2,914.86	394.35	-5.18	394.38	11.00	11.00	0.00	
3,200.00	86.95	359.25	2,929.72	493.07	-6.47	493.12	11.00	11.00	0.00	
3,227.66	89.99	359.25	2,930.46	520.72	-6.84	520.77	11.00	11.00	0.00	
Target Center Line										
3,232.31	90.50	359.25	2,930.44	525.37	-6.90	525.42	11.00	11.00	0.00	
LP Start 4272.66 hold at 3232.31 MD										
3,300.00	90.50	359.25	2,929.84	593.05	-7.79	593.10	0.00	0.00	0.00	
3,400.00	90.50	359.25	2,928.97	693.04	-9.10	693.10	0.00	0.00	0.00	
3,500.00	90.50	359.25	2,928.10	793.03	-10.41	793.09	0.00	0.00	0.00	
3,600.00	90.50	359.25	2,927.23	893.01	-11.73	893.09	0.00	0.00	0.00	
3,700.00	90.50	359.25	2,926.35	993.00	-13.04	993.09	0.00	0.00	0.00	
3,800.00	90.50	359.25	2,925.48	1,092.99	-14.35	1,093.08	0.00	0.00	0.00	
3,900.00	90.50	359.25	2,924.61	1,192.98	-15.67	1,193.08	0.00	0.00	0.00	
4,000.00	90.50	359.25	2,923.74	1,292.96	-16.98	1,293.08	0.00	0.00	0.00	
4,100.00	90.50	359.25	2,922.86	1,392.95	-18.29	1,393.07	0.00	0.00	0.00	
4,200.00	90.50	359.25	2,921.99	1,492.94	-19.61	1,493.07	0.00	0.00	0.00	
4,300.00	90.50	359.25	2,921.12	1,592.93	-20.92	1,593.06	0.00	0.00	0.00	
4,400.00	90.50	359.25	2,920.25	1,692.91	-22.23	1,693.06	0.00	0.00	0.00	
4,500.00	90.50	359.25	2,919.37	1,792.90	-23.54	1,793.06	0.00	0.00	0.00	
4,600.00	90.50	359.25	2,918.50	1,892.89	-24.86	1,893.05	0.00	0.00	0.00	
4,700.00	90.50	359.25	2,917.63	1,992.88	-26.17	1,993.05	0.00	0.00	0.00	
4,800.00	90.50	359.25	2,916.76	2,092.86	-27.48	2,093.04	0.00	0.00	0.00	
4,900.00	90.50	359.25	2,915.88	2,192.85	-28.80	2,193.04	0.00	0.00	0.00	
5,000.00	90.50	359.25	2,915.01	2,292.84	-30.11	2,293.04	0.00	0.00	0.00	
5,100.00	90.50	359.25	2,914.14	2,392.83	-31.42	2,393.03	0.00	0.00	0.00	
5,200.00	90.50	359.25	2,913.26	2,492.81	-32.74	2,493.03	0.00	0.00	0.00	
5,300.00	90.50	359.25	2,912.39	2,592.80	-34.05	2,593.03	0.00	0.00	0.00	
5,400.00	90.50	359.25	2,911.52	2,692.79	-35.36	2,693.02	0.00	0.00	0.00	
5,500.00	90.50	359.25	2,910.65	2,792.78	-36.67	2,793.02	0.00	0.00	0.00	
5,600.00	90.50	359.25	2,909.77	2,892.76	-37.99	2,893.01	0.00	0.00	0.00	
5,700.00	90.50	359.25	2,908.90	2,992.75	-39.30	2,993.01	0.00	0.00	0.00	
5,800.00	90.50	359.25	2,908.03	3,092.74	-40.61	3,093.01	0.00	0.00	0.00	
5,900.00	90.50	359.25	2,907.16	3,192.73	-41.93	3,193.00	0.00	0.00	0.00	
6,000.00	90.50	359.25	2,906.28	3,292.72	-43.24	3,293.00	0.00	0.00	0.00	
6,100.00	90.50	359.25	2,905.41	3,392.70	-44.55	3,393.00	0.00	0.00	0.00	
6,200.00	90.50	359.25	2,904.54	3,492.69	-45.87	3,492.99	0.00	0.00	0.00	
6,300.00	90.50	359.25	2,903.67	3,592.68	-47.18	3,592.99	0.00	0.00	0.00	
6,400.00	90.50	359.25	2,902.79	3,692.67	-48.49	3,692.98	0.00	0.00	0.00	
6,500.00	90.50	359.25	2,901.92	3,792.65	-49.80	3,792.98	0.00	0.00	0.00	
6,600.00	90.50	359.25	2,901.05	3,892.64	-51.12	3,892.98	0.00	0.00	0.00	
6,700.00	90.50	359.25	2,900.17	3,992.63	-52.43	3,992.97	0.00	0.00	0.00	
6,800.00	90.50	359.25	2,899.30	4,092.62	-53.74	4,092.97	0.00	0.00	0.00	
6,900.00	90.50	359.25	2,898.43	4,192.60	-55.06	4,192.96	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 @ 3374.00usft
Project:	Eddy County, New Mexico (NAD-27)	MD Reference:	GL @ 3374.00usft
Site:	Arabian 6 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 01-30-13		

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)
7,000.00	90.50	359.25	2,897.56	4,292.59	-56.37	4,292.96	0.00	0.00	0.00
7,100.00	90.50	359.25	2,896.68	4,392.58	-57.68	4,392.96	0.00	0.00	0.00
7,200.00	90.50	359.25	2,895.81	4,492.57	-59.00	4,492.95	0.00	0.00	0.00
7,300.00	90.50	359.25	2,894.94	4,592.55	-60.31	4,592.95	0.00	0.00	0.00
7,400.00	90.50	359.25	2,894.07	4,692.54	-61.62	4,692.95	0.00	0.00	0.00
7,500.00	90.50	359.25	2,893.19	4,792.53	-62.93	4,792.94	0.00	0.00	0.00
7,504.97	90.50	359.25	2,893.15	4,797.50	-63.00	4,797.91	0.00	0.00	0.00
TD at 7504.97 - PBHL-Arabian 6 #2H									

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	
PP-Arabian 6 #2H	- plan hits target center	0.00	0.00	2,803.44	180.00	-2.36	612,264.20	472,129.34	32° 40' 59.4515 N 104° 25' 26.1059 W
	- Point								
PBHL-Arabian 6 #2H	- plan hits target center	0.00	0.00	2,893.15	4,797.50	-63.00	616,881.70	472,068.70	32° 41' 45.1440 N 104° 25' 26.8616 W
	- Point								

Formations									
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)				
3,227.66	2,930.46	Target Center Line		-0.50	359.25				

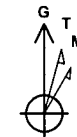
Plan Annotations									
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment					
2,409.58	2,409.58	0.00	0.00	KOP Start Build 11.00					
3,232.31	2,930.44	525.37	-6.90	LP Start 4272.66 hold at 3232.31 MD					
7,504.97	2,893.15	4,797.50	-63.00	TD at 7504.97					



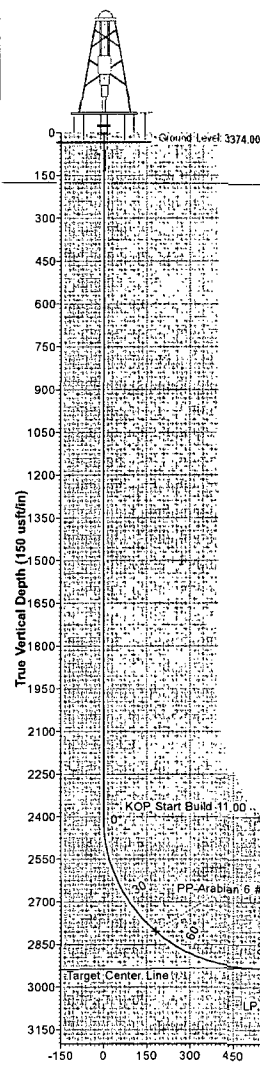
Project: Eddy County, New Mexico (NAD 27)
Site: Arabian 6 Fee
Well: #2H
Wellbore: Wellbore #1
Design: Plan #1 01-30-13



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: 0.05°
Magnetic North: 7.86°
Magnetic Field
Strength: 48634.9nT
Dip Angle: 60.42°
Date: 01/30/2013
Model: IGRF2010_14



WELL DETAILS									
		Ground Level:		3374.00					
		Easting		472131.70		Latitude		Longitude	
+N/S	+E/W	Northing							
0.00	0.00	612084.20				32° 40' 57.6703 N		104° 25' 26.0764 W	

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dleg	TFace	VSecl	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2409.58	0.00	0.00	2409.58	0.00	0.00	0.00	0.00	0.00		KOP Start Build 11.00
3	3232.31	90.50	359.25	2930.44	525.37	-6.90	11.00	359.25	525.42		LP Start 4272.66 hold at 3232.31 MD
4	7504.97	90.50	359.25	2893.15	4797.50	-63.00	0.00	0.00	4797.91	PBHL-Arabian 6 #2H	TD at 7504.97

DESIGN TARGET DETAILS									
Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude	Shape	
PP-Arabian 6 #2H	2803.44	180.00	-2.36	612264.20	472128.34	32° 40' 59.4515 N	104° 25' 26.1659 W	Point	- plan hits target center
PBHL-Arabian 6 #2H	2893.15	4797.50	-63.00	616881.70	472068.70	32° 41' 45.1440 N	104° 25' 26.8616 W	Point	- plan hits target center

PROJECT DETAILS: Eddy County, New Mexico (NAD 27)

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: Arabian 6 Fee

Site Centre Northing: 612084.20
Easting: 472131.70
Positional Uncertainty: 0.00
Convergence: -0.05
Local North: Grid

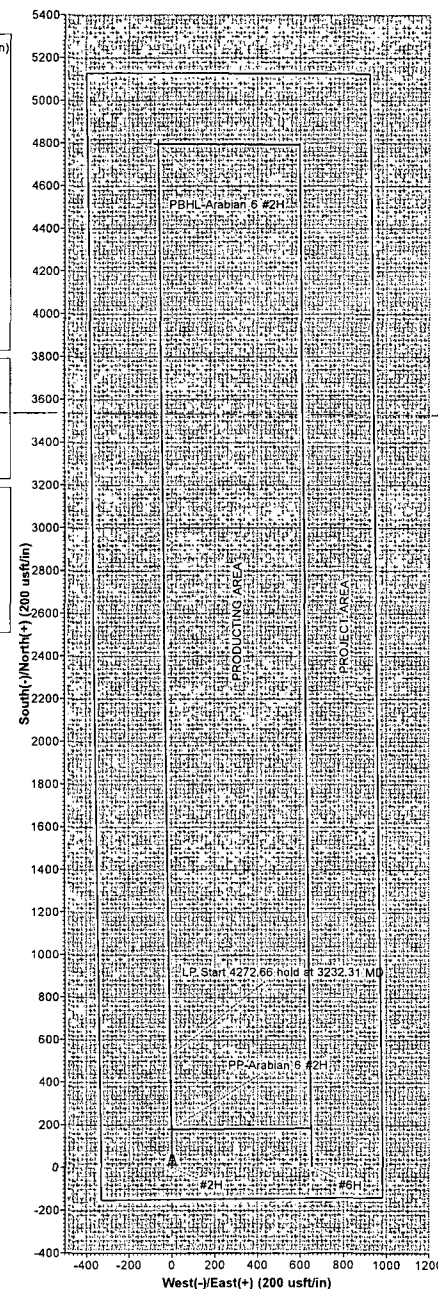
Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001
Local Origin: Well #2H, Grid North
Latitude: 32° 40' 57.6703 N
Longitude: 104° 25' 26.0764 W
Grid East: 472131.70
Grid North: 612084.20
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 30-Jan-13
Magnetic Declination: 7.81°
Dip Angle from Horizontal: 60.42°
Magnetic Field Strength: 48635
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°

LEGEND

—●— #6H, Wellbore #1, Plan #1 01-30-13 V0
—●— Plan #1 01-30-13

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
2930.46	3227.65	Target Center Line	-0.50	359.25



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. 30-015-39406
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Arabian 6 Fee
8. Well Number 2H
9. OGRID Number 229137
10. Pool name or Wildcat Penasco Draw; SA-Yeso (Assoc) 50270
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3373'

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 **6** Township **19S** Range **26E** NMPM County **EDDY**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3373'

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: ☐

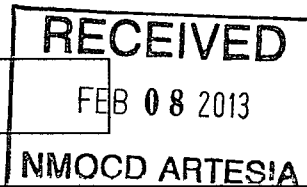
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

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 2410' MD and kick off and drill curve to 2930' TVD 3232' MD. Drill a 7-7/8" lateral to new BHL @ 2893' TVD 7505' 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 **2/14/2013**

Conditions of Approval (if any):



COG Operating LLC

Eddy County, New Mexico (NAD 27)

Arabian 6 Fee #2H

Wellbore #1

Plan: Plan #1 01-30-13

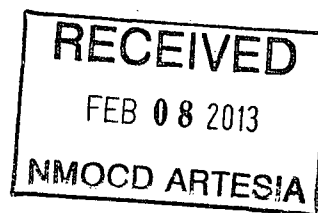
Surface: 150' FSL, 1615' FWL, Sec 6, T19S, R26E, Unit N

PP: 330' FSL, 1615' FWL, Sec 6, T19S, R26E, Unit N

BHL: 330' FNL, 1517' FWL, Sec 6, T19S, R26E, Lot 3

Standard Planning Report

30 January, 2013





Phoenix Technology Services
Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, New Mexico (NAD 27)
Site: Arabian 6 Fee
Well: #2H
Wellbore: Wellbore #1
Design: Plan #1 01-30-13

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Well #2H
GL @ 3374.00usft
GL @ 3374.00usft
Grid
Minimum Curvature

Project: Eddy County, New Mexico (NAD 27)
Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site: Arabian 6 Fee

Site Position: Northing: 612,084.20 usft Latitude: 32° 40' 57.6703 N
From: Map Easting: 472,131.70 usft Longitude: 104° 25' 26.0764 W
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16" Grid Convergence: -0.05°

Well: #2H

Well Position: +N-S 0.00 usft Northing: 612,084.20 usft Latitude: 32° 40' 57.6703 N
+E-W 0.00 usft Easting: 472,131.70 usft Longitude: 104° 25' 26.0764 W
Position Uncertainty: 0.00 usft Wellhead Elevation: Ground Level: 3,374.00 usft

Wellbore: Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	01/30/13	7.81	60.42	48,635

Design: Plan #1 01-30-13

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	359.25

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	
2,409.58	0.00	0.00	2,409.58	0.00	0.00	0.00	0.00	0.00	0.00	
3,232.31	90.50	359.25	2,930.44	525.37	-6.90	11.00	11.00	0.00	359.25	
7,504.97	90.50	359.25	2,893.15	4,797.50	-63.00	0.00	0.00	0.00	0.00	PBHL-Arabian 6 #2H



Phoenix Technology Services

Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, New Mexico (NAD 27)
Site: Arabian 6 Fee
Well: #2H
Wellbore: Wellbore #1
Design: Plan #1-01-30-13

Local Co-ordinate Reference: Well #2H
TVD Reference: GL @ 3374.00usft
MD Reference: GL @ 3374.00usft
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
2,409.58	0.00	0.00	2,409.58	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 11.00									
2,500.00	9.95	359.25	2,499.55	7.83	-0.10	7.83	11.00	11.00	0.00
2,600.00	20.95	359.25	2,595.79	34.42	-0.45	34.42	11.00	11.00	0.00
2,700.00	31.95	359.25	2,685.19	78.88	-1.04	78.89	11.00	11.00	0.00
2,800.00	42.95	359.25	2,764.46	139.58	-1.83	139.59	11.00	11.00	0.00
2,856.20	49.13	359.25	2,803.45	180.01	-2.36	180.02	11.00	11.00	0.00
PP-Arabian 6 #2H									
2,900.00	53.95	359.25	2,830.69	214.29	-2.81	214.31	11.00	11.00	0.00
3,000.00	64.95	359.25	2,881.45	300.27	-3.94	300.29	11.00	11.00	0.00
3,100.00	75.95	359.25	2,914.86	394.35	-5.18	394.38	11.00	11.00	0.00
3,200.00	86.95	359.25	2,929.72	493.07	-6.47	493.12	11.00	11.00	0.00
3,227.66	89.99	359.25	2,930.46	520.72	-6.84	520.77	11.00	11.00	0.00
Target Center Line									
3,232.31	90.50	359.25	2,930.44	525.37	-6.90	525.42	11.00	11.00	0.00
LP Start 4272.66 hold at 3232.31 MD									
3,300.00	90.50	359.25	2,929.84	593.05	-7.79	593.10	0.00	0.00	0.00
3,400.00	90.50	359.25	2,928.97	693.04	-9.10	693.10	0.00	0.00	0.00
3,500.00	90.50	359.25	2,928.10	793.03	-10.41	793.09	0.00	0.00	0.00
3,600.00	90.50	359.25	2,927.23	893.01	-11.73	893.09	0.00	0.00	0.00
3,700.00	90.50	359.25	2,926.35	993.00	-13.04	993.09	0.00	0.00	0.00
3,800.00	90.50	359.25	2,925.48	1,092.99	-14.35	1,093.08	0.00	0.00	0.00
3,900.00	90.50	359.25	2,924.61	1,192.98	-15.67	1,193.08	0.00	0.00	0.00
4,000.00	90.50	359.25	2,923.74	1,292.96	-16.98	1,293.08	0.00	0.00	0.00
4,100.00	90.50	359.25	2,922.86	1,392.95	-18.29	1,393.07	0.00	0.00	0.00
4,200.00	90.50	359.25	2,921.99	1,492.94	-19.61	1,493.07	0.00	0.00	0.00
4,300.00	90.50	359.25	2,921.12	1,592.93	-20.92	1,593.06	0.00	0.00	0.00
4,400.00	90.50	359.25	2,920.25	1,692.91	-22.23	1,693.06	0.00	0.00	0.00
4,500.00	90.50	359.25	2,919.37	1,792.90	-23.54	1,793.06	0.00	0.00	0.00
4,600.00	90.50	359.25	2,918.50	1,892.89	-24.86	1,893.05	0.00	0.00	0.00
4,700.00	90.50	359.25	2,917.63	1,992.88	-26.17	1,993.05	0.00	0.00	0.00
4,800.00	90.50	359.25	2,916.76	2,092.86	-27.48	2,093.04	0.00	0.00	0.00
4,900.00	90.50	359.25	2,915.88	2,192.85	-28.80	2,193.04	0.00	0.00	0.00
5,000.00	90.50	359.25	2,915.01	2,292.84	-30.11	2,293.04	0.00	0.00	0.00
5,100.00	90.50	359.25	2,914.14	2,392.83	-31.42	2,393.03	0.00	0.00	0.00
5,200.00	90.50	359.25	2,913.26	2,492.81	-32.74	2,493.03	0.00	0.00	0.00
5,300.00	90.50	359.25	2,912.39	2,592.80	-34.05	2,593.03	0.00	0.00	0.00
5,400.00	90.50	359.25	2,911.52	2,692.79	-35.36	2,693.02	0.00	0.00	0.00
5,500.00	90.50	359.25	2,910.65	2,792.78	-36.67	2,793.02	0.00	0.00	0.00
5,600.00	90.50	359.25	2,909.77	2,892.76	-37.99	2,893.01	0.00	0.00	0.00
5,700.00	90.50	359.25	2,908.90	2,992.75	-39.30	2,993.01	0.00	0.00	0.00
5,800.00	90.50	359.25	2,908.03	3,092.74	-40.61	3,093.01	0.00	0.00	0.00
5,900.00	90.50	359.25	2,907.16	3,192.73	-41.93	3,193.00	0.00	0.00	0.00
6,000.00	90.50	359.25	2,906.28	3,292.72	-43.24	3,293.00	0.00	0.00	0.00
6,100.00	90.50	359.25	2,905.41	3,392.70	-44.55	3,393.00	0.00	0.00	0.00
6,200.00	90.50	359.25	2,904.54	3,492.69	-45.87	3,492.99	0.00	0.00	0.00
6,300.00	90.50	359.25	2,903.67	3,592.68	-47.18	3,592.99	0.00	0.00	0.00
6,400.00	90.50	359.25	2,902.79	3,692.67	-48.49	3,692.98	0.00	0.00	0.00
6,500.00	90.50	359.25	2,901.92	3,792.65	-49.80	3,792.98	0.00	0.00	0.00
6,600.00	90.50	359.25	2,901.05	3,892.64	-51.12	3,892.98	0.00	0.00	0.00
6,700.00	90.50	359.25	2,900.17	3,992.63	-52.43	3,992.97	0.00	0.00	0.00
6,800.00	90.50	359.25	2,899.30	4,092.62	-53.74	4,092.97	0.00	0.00	0.00
6,900.00	90.50	359.25	2,898.43	4,192.60	-55.06	4,192.96	0.00	0.00	0.00



Phoenix Technology Services

Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County New Mexico (NAD 27)
Site: Arabian 6 Fee
Well: #2H
Wellbore: Wellbore #1
Design: Plan #1- 01-30-13

Local Co-ordinate Reference: Well #2H
TVD Reference: GL @ 3374.00usft
MD Reference: GL @ 3374.00usft
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)
7,000.00	90.50	359.25	2,897.56	4,292.59	-56.37	4,292.96	0.00	0.00	0.00
7,100.00	90.50	359.25	2,896.68	4,392.58	-57.68	4,392.96	0.00	0.00	0.00
7,200.00	90.50	359.25	2,895.81	4,492.57	-59.00	4,492.95	0.00	0.00	0.00
7,300.00	90.50	359.25	2,894.94	4,592.55	-60.31	4,592.95	0.00	0.00	0.00
7,400.00	90.50	359.25	2,894.07	4,692.54	-61.62	4,692.95	0.00	0.00	0.00
7,500.00	90.50	359.25	2,893.19	4,792.53	-62.93	4,792.94	0.00	0.00	0.00
7,504.97	90.50	359.25	2,893.15	4,797.50	-63.00	4,797.91	0.00	0.00	0.00
TD at 7504.97 - PBHL-Arabian 6 #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
PP-Arabian 6 #2H	- plan hits target center - Point	0.00	0.00	2,803.44	180.00	-2.36	612,264.20	472,129.34	32° 40' 59.4515 N	104° 25' 26.1059 W
PBHL-Arabian 6 #2H	- plan hits target center - Point	0.00	0.00	2,893.15	4,797.50	-63.00	616,881.70	472,068.70	32° 41' 45.1440 N	104° 25' 26.8616 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,227.66	2,930.46	Target Center Line		-0.50	359.25

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	Comment
2,409.58	2,409.58	+N-S (usft) 0.00 +E-W (usft) 0.00	KOP Start Build 11.00
3,232.31	2,930.44	+N-S (usft) 525.37 +E-W (usft) -6.90	LP Start 4272.66 hold at 3232.31 MD
7,504.97	2,893.15	+N-S (usft) 4,797.50 +E-W (usft) -63.00	TD at 7504.97



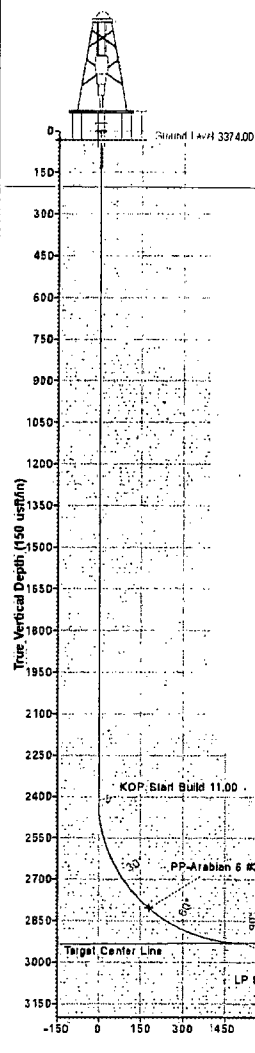
Project: Eddy County, New Mexico (NAD 27)
Site: Arabian 6 Fee
Well: #2H
Wellbore: Wellbore #1
Design: Plan #1 01-30-13



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: 0.03°
Magnetic North: 7.88°
Magnetic Field
Strength: 48534.8 nT
Dip Angle: 60.42°
Date: 6/12/2013
Model: IGRF2010_14



WELL DETAILS											
	+NAS	-EAW	Northing	Ground Level	3374.00	Latitude	Longitude				
	0.00	0.00	612094.20	Easting	472131.70	32° 40' 57.6703 N	104° 25' 26.0764 W				
SECTION DETAILS											
Sr	MD	Inc	-Azi	TVD	+NAS	-EAW	Diag	IFace	VSeal	Target	Annotation
1	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00		
2	2409.58	0.00	0.00	2409.58	0.00	0.00	0.00	0.00	0.00		KOP Start Build 11.00
3	3232.31	90.50	359.25	2830.44	525.37	-6.90	11.00	359.25	525.42		LP Start 4272.66 hold at 3232.31 MD
4	7504.97	90.50	359.25	2893.15	4797.50	-63.00	0.00	0.00	4797.91	PBHL-Arabian 6 #2H	ID at 7504.97
DESIGN TARGET DETAILS											
Name	TVD	+NAS	-EAW	Northing	Easting	Latitude	Longitude	Shape			
PP-Arabian 6 #2H	2803.44	180.00	-2.35	612264.20	472129.34	32° 40' 59.4515 N	104° 25' 26.1069 W	Point			
- plan hts target center											
PBHL-Arabian 6 #2H	2893.15	4797.50	-63.00	616681.70	472038.70	32° 41' 45.1440 N	104° 25' 26.8616 W	Point			
- plan hts target center											
PROJECT DETAILS: Eddy County, New Mexico (NAD 27)											
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: Arabian 6 Fee											
Site Centre Northing: 612094.20											
Easting: 472131.70											
Positional Uncertainty: 0.00											
Convergence: -0.05											
Local North: Grid											
FORMATION TOP DETAILS											
TVDPath	MDPath	Formation	DipAngle	DipDir							
2300.46	3227.66	Target Center Line	-0.50	359.25							

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° 40' 57.6703 N
Longitude: 104° 25' 26.0764 W
Grid East: 472131.70
Grid North: 612094.20
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 30-Jan-13
Magnetic Declination: 7.81°
Dip Angle from Horizontal: 60.42°
Magnetic Field Strength: 48935
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°

LEGEND

— #2H, Wellbore #1, Plan #1 01-30-13 V.D
— Plan #1 01-30-13

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
2300.46	3227.66	Target Center Line	-0.50	359.25

