

Energen Resources Corporation

Permian Basin(Lea County, NM)

Cox Federal 35

#3H

OH

Plan: Design #1

Standard Planning Report

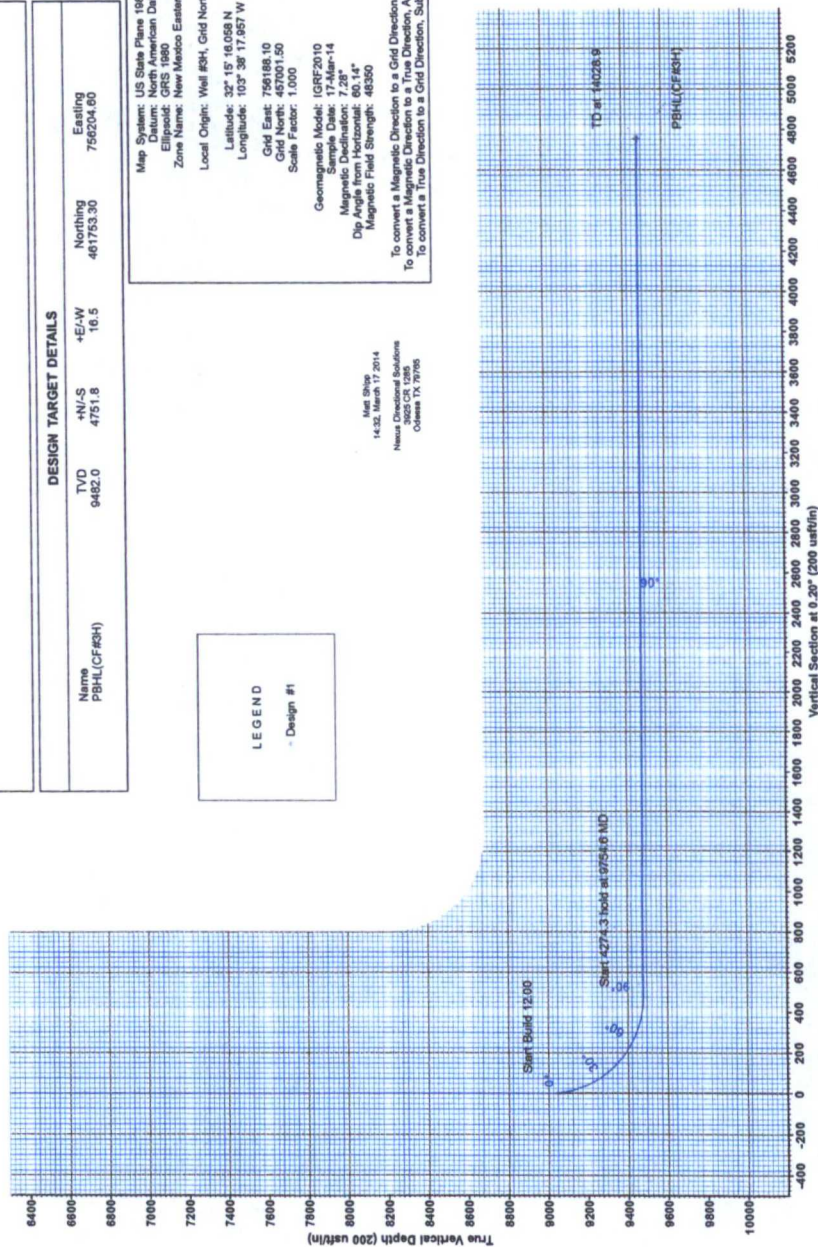
17 March, 2014

HOBBS OCD

JUN 06 2016

RECEIVED

Cox Federal 35 #3H
 Permian Basin(Lea County, NM)
 Northing: (Y) 457001.50
 Easting: (X) 756188.10
 Design #1



LEGEND
 - Design #1

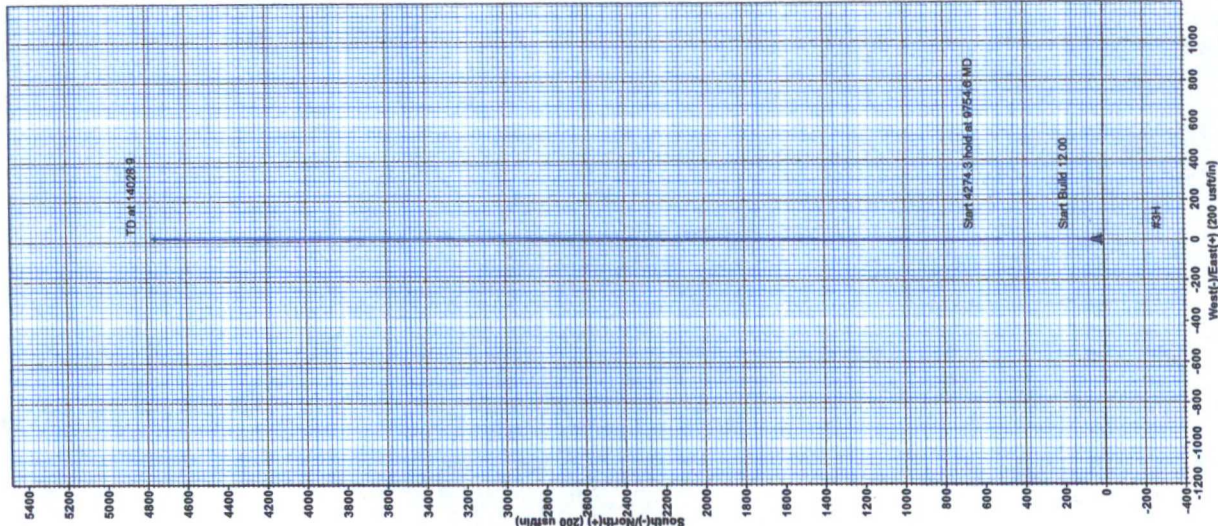
Map Sheet
 14.32, March 17, 2014
 Nexus Directional Solutions
 Odessa, TX 79765

Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone
 Local Origin: Well #3H, Grid North
 Latitude: 32° 15' 16.058 N
 Longitude: 103° 38' 17.857 W
 Grid East: 756188.10
 Grid North: 457001.50
 Scale Factor: 1.000
 Geomagnetic Model: IGRF2010
 Sample Date: 17-Mar-14
 Magnetic Inclination: 22.3°
 Dip Angle from Horizontal: 60.14°
 Magnetic Field Strength: 48350
 To convert a Magnetic Direction to a Grid Direction, Add 6.91°
 To convert a Magnetic Direction to a True Direction, Add 7.20° East
 To convert a True Direction to a Grid Direction, Subtract 0.37°

WELL DETAILS:									
WELL @ 3979.0usft (Original Well Elev)									
		+N-S	+E-W	Northing	Easting	Latitude	Longitude		
		0.0	0.0	457001.50	756188.10	32° 15' 16.058 N	103° 38' 17.857 W		
SECTION DETAILS									
MD	Inc	Adj	TVD	+N-S	+E-W	Dleg	TFace	VSeal	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
9004.5	0.00	0.00	9004.5	0.0	0.0	0.00	0.00	0.0	
9754.6	90.00	0.20	9482.0	477.5	1.7	12.00	0.20	477.5	PBHL(CF#3H)
14028.9	90.00	0.20	9482.0	4751.8	16.6	0.00	0.00	4751.8	
DESIGN TARGET DETAILS									
Name				TVD	+N-S	+E-W	Northing	Easting	
PBHL(CF#3H)				9482.0	4751.8	16.5	461753.30	756204.60	



Adimuths to Grid North
 True North: -0.37°
 Magnetic North: 6.91°
 Magnetic Field
 Strength: 48350.2nT
 Dip Angle: 60.14°
 To convert a Magnetic Direction to a Grid Direction, Add 6.91°
 To convert a True Direction to a Grid Direction, Subtract 0.37°
 To convert a True Direction to a Grid Direction, Subtract 0.37°



Wellplanning

Planning Report

Database: EDM 5000.1 Single User Db
 Company: Energen Resources Corporation
 Project: Permian Basin(Lea County, NM)
 Site: Cox Federal 35
 Well: #3H
 Wellbore: OH
 Design: Design #1

Local Co-ordinate Reference: Well #3H
 TVD Reference: WELL @ 3679.0usft (Original Well Elev)
 MD Reference: WELL @ 3679.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	Permian Basin(Lea County, NM)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Cox Federal 35				
Site Position:		Northing:	457,002.00 usft	Latitude:	32° 15' 16.060 N
From:	Lat/Long	Easting:	756,238.12 usft	Longitude:	103° 38' 17.374 W
Position Uncertainty:	2.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	#3H					
Well Position	+N/-S	-0.5 usft	Northing:	457,001.50 usft	Latitude:	32° 15' 16.058 N
	+E/-W	-50.0 usft	Easting:	756,188.10 usft	Longitude:	103° 38' 17.957 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,649.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/17/2014	7.28	60.14	48,350

Design	Design #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	0.20	

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,004.5	0.00	0.00	9,004.5	0.0	0.0	0.00	0.00	0.00	0.00	
9,754.6	90.00	0.20	9,482.0	477.5	1.7	12.00	12.00	0.00	0.20	
14,028.9	90.00	0.20	9,482.0	4,751.8	16.6	0.00	0.00	0.00	0.00	PBHL(CF#3H)

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 Well: #3H
 Wellbore: OH
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Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well #3H
 WELL @ 3679.0usft (Original Well Elev)
 WELL @ 3679.0usft (Original Well Elev)
 Grid
 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

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Well #3H
WELL @ 3679.0usft (Original Well Elev)
WELL @ 3679.0usft (Original Well Elev)
Grid
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)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,004.5	0.00	0.00	9,004.5	0.0	0.0	0.0	0.00	0.00	0.00
9,025.0	2.46	0.20	9,025.0	0.4	0.0	0.4	12.00	12.00	0.00
9,050.0	5.46	0.20	9,049.9	2.2	0.0	2.2	12.00	12.00	0.00
9,075.0	8.46	0.20	9,074.7	5.2	0.0	5.2	12.00	12.00	0.00
9,100.0	11.46	0.20	9,099.4	9.5	0.0	9.5	12.00	12.00	0.00
9,125.0	14.46	0.20	9,123.7	15.1	0.1	15.1	12.00	12.00	0.00
9,150.0	17.46	0.20	9,147.8	22.0	0.1	22.0	12.00	12.00	0.00
9,175.0	20.46	0.20	9,171.4	30.1	0.1	30.1	12.00	12.00	0.00
9,200.0	23.46	0.20	9,194.6	39.5	0.1	39.5	12.00	12.00	0.00
9,225.0	26.46	0.20	9,217.2	50.0	0.2	50.0	12.00	12.00	0.00
9,250.0	29.46	0.20	9,239.3	61.7	0.2	61.7	12.00	12.00	0.00
9,275.0	32.46	0.20	9,260.8	74.6	0.3	74.6	12.00	12.00	0.00
9,300.0	35.46	0.20	9,281.5	88.6	0.3	88.6	12.00	12.00	0.00
9,325.0	38.46	0.20	9,301.5	103.6	0.4	103.6	12.00	12.00	0.00
9,350.0	41.46	0.20	9,320.6	119.6	0.4	119.6	12.00	12.00	0.00
9,375.0	44.46	0.20	9,338.9	136.7	0.5	136.7	12.00	12.00	0.00
9,400.0	47.46	0.20	9,356.3	154.6	0.5	154.6	12.00	12.00	0.00
9,425.0	50.46	0.20	9,372.7	173.5	0.6	173.5	12.00	12.00	0.00

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Site: Cox Federal 35
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Wellbore: OH
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TVD Reference: WELL @ 3679.0usft (Original Well Elev)
MD Reference: WELL @ 3679.0usft (Original Well Elev)
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)
9,450.0	53.46	0.20	9,388.1	193.2	0.7	193.2	12.00	12.00	0.00
9,475.0	56.46	0.20	9,402.5	213.6	0.7	213.6	12.00	12.00	0.00
9,500.0	59.46	0.20	9,415.7	234.8	0.8	234.8	12.00	12.00	0.00
9,525.0	62.46	0.20	9,427.9	256.7	0.9	256.7	12.00	12.00	0.00
9,550.0	65.46	0.20	9,438.9	279.1	1.0	279.1	12.00	12.00	0.00
9,575.0	68.45	0.20	9,448.6	302.1	1.1	302.1	12.00	12.00	0.00
9,600.0	71.45	0.20	9,457.2	325.6	1.1	325.6	12.00	12.00	0.00
9,625.0	74.45	0.20	9,464.5	349.5	1.2	349.5	12.00	12.00	0.00
9,650.0	77.45	0.20	9,470.6	373.8	1.3	373.8	12.00	12.00	0.00
9,675.0	80.45	0.20	9,475.4	398.3	1.4	398.3	12.00	12.00	0.00
9,700.0	83.45	0.20	9,478.9	423.1	1.5	423.1	12.00	12.00	0.00
9,725.0	86.45	0.20	9,481.1	448.0	1.6	448.0	12.00	12.00	0.00
9,750.0	89.45	0.20	9,482.0	472.9	1.7	472.9	12.00	12.00	0.00
9,754.6	90.00	0.20	9,482.0	477.5	1.7	477.5	12.00	12.00	0.00
9,800.0	90.00	0.20	9,482.0	522.9	1.8	522.9	0.00	0.00	0.00
9,900.0	90.00	0.20	9,482.0	622.9	2.2	622.9	0.00	0.00	0.00
10,000.0	90.00	0.20	9,482.0	722.9	2.5	722.9	0.00	0.00	0.00
10,100.0	90.00	0.20	9,482.0	822.9	2.9	822.9	0.00	0.00	0.00
10,200.0	90.00	0.20	9,482.0	922.9	3.2	922.9	0.00	0.00	0.00
10,300.0	90.00	0.20	9,482.0	1,022.9	3.6	1,022.9	0.00	0.00	0.00
10,400.0	90.00	0.20	9,482.0	1,122.9	3.9	1,122.9	0.00	0.00	0.00
10,500.0	90.00	0.20	9,482.0	1,222.9	4.3	1,222.9	0.00	0.00	0.00
10,600.0	90.00	0.20	9,482.0	1,322.9	4.6	1,322.9	0.00	0.00	0.00
10,700.0	90.00	0.20	9,482.0	1,422.9	5.0	1,422.9	0.00	0.00	0.00
10,800.0	90.00	0.20	9,482.0	1,522.9	5.3	1,522.9	0.00	0.00	0.00
10,900.0	90.00	0.20	9,482.0	1,622.9	5.7	1,622.9	0.00	0.00	0.00
11,000.0	90.00	0.20	9,482.0	1,722.9	6.0	1,722.9	0.00	0.00	0.00
11,100.0	90.00	0.20	9,482.0	1,822.9	6.4	1,822.9	0.00	0.00	0.00
11,200.0	90.00	0.20	9,482.0	1,922.9	6.7	1,922.9	0.00	0.00	0.00
11,300.0	90.00	0.20	9,482.0	2,022.9	7.1	2,022.9	0.00	0.00	0.00
11,400.0	90.00	0.20	9,482.0	2,122.9	7.4	2,122.9	0.00	0.00	0.00
11,500.0	90.00	0.20	9,482.0	2,222.9	7.8	2,222.9	0.00	0.00	0.00
11,600.0	90.00	0.20	9,482.0	2,322.9	8.1	2,322.9	0.00	0.00	0.00
11,700.0	90.00	0.20	9,482.0	2,422.9	8.5	2,422.9	0.00	0.00	0.00
11,800.0	90.00	0.20	9,482.0	2,522.9	8.8	2,522.9	0.00	0.00	0.00
11,900.0	90.00	0.20	9,482.0	2,622.9	9.2	2,622.9	0.00	0.00	0.00
12,000.0	90.00	0.20	9,482.0	2,722.9	9.5	2,722.9	0.00	0.00	0.00
12,100.0	90.00	0.20	9,482.0	2,822.9	9.9	2,822.9	0.00	0.00	0.00
12,200.0	90.00	0.20	9,482.0	2,922.9	10.2	2,922.9	0.00	0.00	0.00
12,300.0	90.00	0.20	9,482.0	3,022.9	10.6	3,022.9	0.00	0.00	0.00
12,400.0	90.00	0.20	9,482.0	3,122.9	10.9	3,122.9	0.00	0.00	0.00
12,500.0	90.00	0.20	9,482.0	3,222.9	11.3	3,222.9	0.00	0.00	0.00
12,600.0	90.00	0.20	9,482.0	3,322.9	11.6	3,322.9	0.00	0.00	0.00
12,700.0	90.00	0.20	9,482.0	3,422.9	11.9	3,422.9	0.00	0.00	0.00
12,800.0	90.00	0.20	9,482.0	3,522.9	12.3	3,522.9	0.00	0.00	0.00
12,900.0	90.00	0.20	9,482.0	3,622.9	12.6	3,622.9	0.00	0.00	0.00
13,000.0	90.00	0.20	9,482.0	3,722.9	13.0	3,722.9	0.00	0.00	0.00
13,100.0	90.00	0.20	9,482.0	3,822.9	13.3	3,822.9	0.00	0.00	0.00
13,200.0	90.00	0.20	9,482.0	3,922.9	13.7	3,922.9	0.00	0.00	0.00
13,300.0	90.00	0.20	9,482.0	4,022.9	14.0	4,022.9	0.00	0.00	0.00
13,400.0	90.00	0.20	9,482.0	4,122.9	14.4	4,122.9	0.00	0.00	0.00
13,500.0	90.00	0.20	9,482.0	4,222.9	14.7	4,222.9	0.00	0.00	0.00
13,600.0	90.00	0.20	9,482.0	4,322.9	15.1	4,322.9	0.00	0.00	0.00
13,700.0	90.00	0.20	9,482.0	4,422.9	15.4	4,422.9	0.00	0.00	0.00

Wellplanning

Planning Report

Database: EDM 5000.1 Single User Db
 Company: Energen Resources Corporation
 Project: Permian Basin(Lea County, NM)
 Site: Cox Federal 35
 Well: #3H
 Wellbore: OH
 Design: Design #1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well #3H
 WELL @ 3679.0usft (Original Well Elev)
 WELL @ 3679.0usft (Original Well Elev)
 Grid
 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)
13,800.0	90.00	0.20	9,482.0	4,522.9	15.8	4,522.9	0.00	0.00	0.00
13,900.0	90.00	0.20	9,482.0	4,622.9	16.1	4,622.9	0.00	0.00	0.00
14,000.0	90.00	0.20	9,482.0	4,722.9	16.5	4,722.9	0.00	0.00	0.00
14,028.9	90.00	0.20	9,482.0	4,751.8	16.6	4,751.8	0.00	0.00	0.00
PBHL(CF#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(CF#3H)	0.00	0.00	9,482.0	4,751.8	16.5	461,753.30	756,204.60	32° 16' 3.078 N	103° 38' 17.406 W
- plan misses target center by 0.1usft at 14028.9usft MD (9482.0 TVD, 4751.8 N, 16.6 E)									
- Point									