

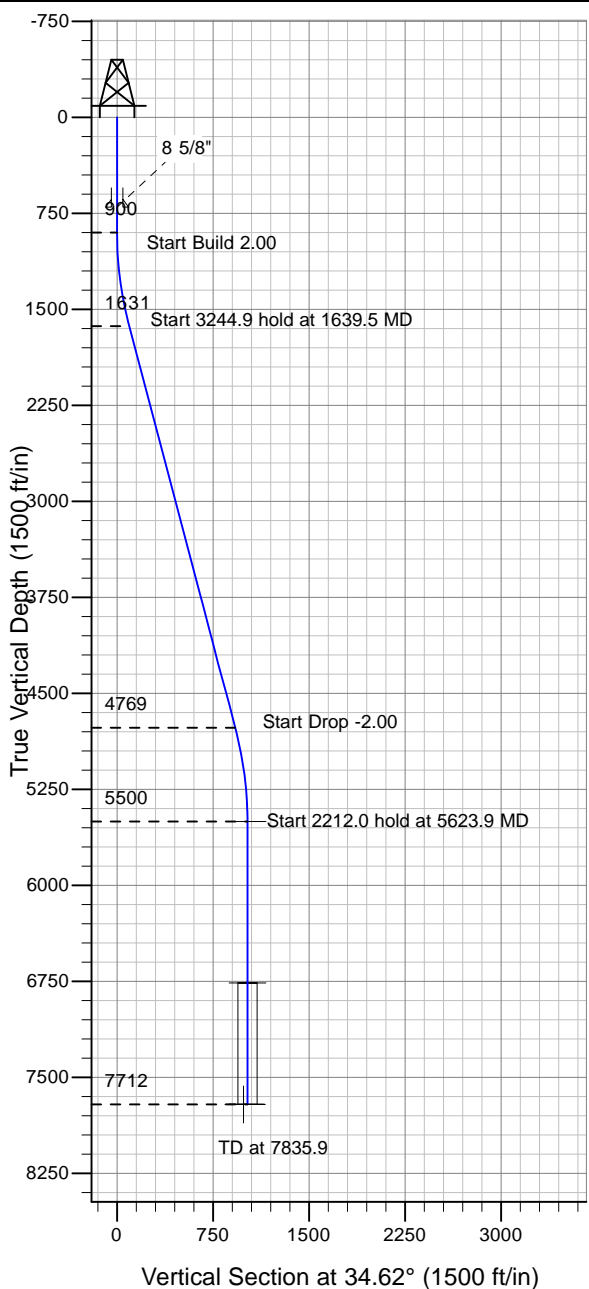
ENSIGN

Directional

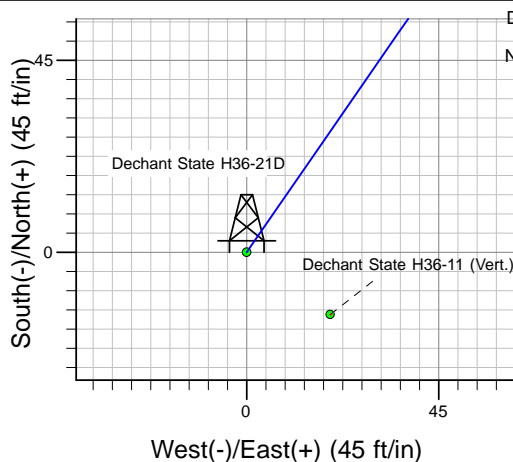
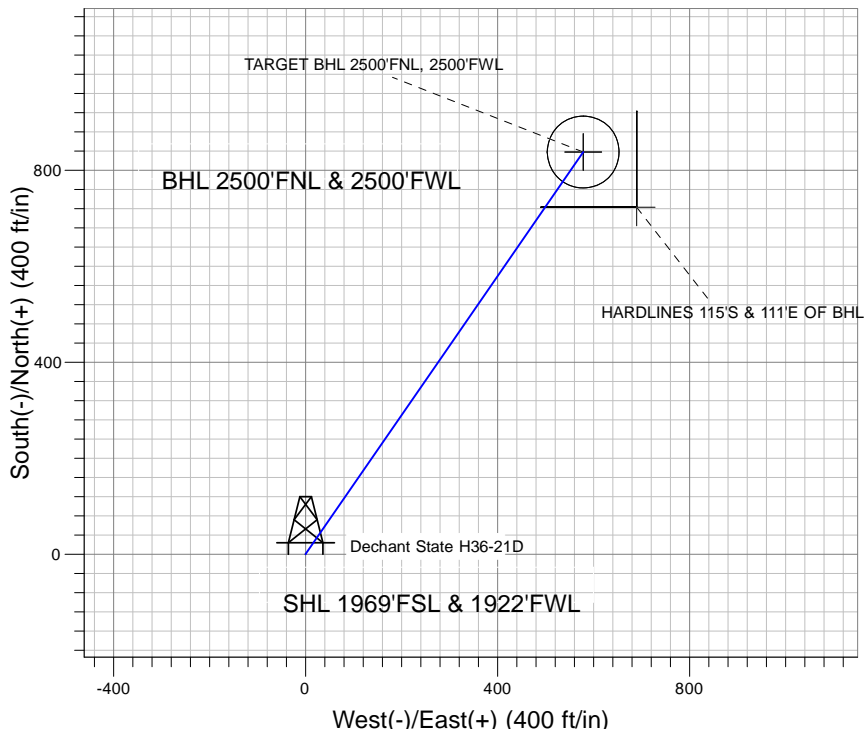
Well Name: Dechant State H36-21D

Surface Location: Dechant State H36-21D Pad Sec.36-T3N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4819.0

+N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1309549.05 3247306.37 40° 10' 46.992 N 104° 36' 53.640 W
 Original Well Elev WELL @ 4832.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



Dechant State H36-21D Pad Sec.36-T3N-R65W
 Dechant State H36-21D
 Noble Dechant State H36-21D Plan #2 (9-01-10)
 13:57, September 01 2010



Azimuths to True North
 Magnetic North: 8.87°

Magnetic Field
 Strength: 53116.7nT
 Dip Angle: 66.92°
 Date: 8/26/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 2500'FNL, 2500'FWL	5500.0	837.9	578.4	40° 10' 55.272 N	104° 36' 46.188 W	Point
TARGET CIRCLE 2500'FNL, 2500'FWL	6762.0	837.9	578.4	40° 10' 55.272 N	104° 36' 46.188 W	Circle (Radius: 75.0)
HARDLINES 115'S & 111'E OF BHL	7712.0	722.9	689.4	40° 10' 54.135 N	104° 36' 44.758 W	Polygon

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1639.5	14.79	34.62	1631.3	78.1	53.9	2.00	34.62	94.9	
4	4884.4	14.79	34.62	4768.7	759.8	524.5	0.00	0.00	923.2	
5	5623.9	0.00	0.00	5500.0	837.9	578.4	2.00	180.00	1018.1	TARGET BHL 2500'FNL, 2500'FWL
6	7835.9	0.00	0.00	7712.0	837.9	578.4	0.00	0.00	1018.1	



NOBLE ENERGY INC WELD COUNTY CO

SEC.36-T3N-R65W

Dechant State H36-21D Pad Sec.36-T3N-R65W

Dechant State H36-21D

Wellbore #1

Plan: Noble Dechant State H36-21D Plan #2 (9-01-10)

Standard Planning Report

01 September, 2010



Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dechant State H36-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4832.0ft (Original Well Elev)
Project:	SEC.36-T3N-R65W	MD Reference:	WELL @ 4832.0ft (Original Well Elev)
Site:	Dechant State H36-21D Pad Sec.36-T3N-R65W	North Reference:	True
Well:	Dechant State H36-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dechant State H36-21D Plan #2 (9-01-10)		

Project	SEC.36-T3N-R65W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						Dechant State H36-21D Pad Sec.36-T3N-R65W											
Site Position:						Northing:			1,309,549.05 ft			Latitude:			40° 10' 46.992 N		
From:			Lat/Long			Easting:			3,247,306.37 ft			Longitude:			104° 36' 53.640 W		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.57 °		

Well	Dechant State H36-21D					
Well Position	+N-S	0.0 ft	Northing:	1,309,549.05 ft	Latitude:	40° 10' 46.992 N
	+E-W	0.0 ft	Easting:	3,247,306.37 ft	Longitude:	104° 36' 53.640 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,819.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/26/2010	8.87	66.92	53,117

Design	Noble Dechant State H36-21D Plan #2 (9-01-10)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	34.62

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,639.5	14.79	34.62	1,631.3	78.1	53.9	2.00	2.00	0.00	34.62	
4,884.4	14.79	34.62	4,768.7	759.8	524.5	0.00	0.00	0.00	0.00	
5,623.9	0.00	0.00	5,500.0	837.9	578.4	2.00	-2.00	0.00	180.00	TARGET BHL 250C
7,835.9	0.00	0.00	7,712.0	837.9	578.4	0.00	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dechant State H36-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4832.0ft (Original Well Elev)
Project:	SEC.36-T3N-R65W	MD Reference:	WELL @ 4832.0ft (Original Well Elev)
Site:	Dechant State H36-21D Pad Sec.36-T3N-R65W	North Reference:	True
Well:	Dechant State H36-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dechant State H36-21D Plan #2 (9-01-10)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	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
8 5/8"									
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	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
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	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
920.0	0.40	34.62	920.0	0.1	0.0	0.1	2.00	2.00	0.00
960.0	1.20	34.62	960.0	0.5	0.4	0.6	2.00	2.00	0.00
1,000.0	2.00	34.62	1,000.0	1.4	1.0	1.7	2.00	2.00	0.00
1,040.0	2.80	34.62	1,039.9	2.8	1.9	3.4	2.00	2.00	0.00
1,080.0	3.60	34.62	1,079.9	4.7	3.2	5.7	2.00	2.00	0.00
1,120.0	4.40	34.62	1,119.8	6.9	4.8	8.4	2.00	2.00	0.00
1,160.0	5.20	34.62	1,159.6	9.7	6.7	11.8	2.00	2.00	0.00
1,200.0	6.00	34.62	1,199.5	12.9	8.9	15.7	2.00	2.00	0.00
1,240.0	6.80	34.62	1,239.2	16.6	11.4	20.2	2.00	2.00	0.00
1,280.0	7.60	34.62	1,278.9	20.7	14.3	25.2	2.00	2.00	0.00
1,320.0	8.40	34.62	1,318.5	25.3	17.5	30.7	2.00	2.00	0.00
1,360.0	9.20	34.62	1,358.0	30.3	20.9	36.9	2.00	2.00	0.00
1,400.0	10.00	34.62	1,397.5	35.8	24.7	43.5	2.00	2.00	0.00
1,440.0	10.80	34.62	1,436.8	41.8	28.8	50.7	2.00	2.00	0.00
1,480.0	11.60	34.62	1,476.0	48.2	33.2	58.5	2.00	2.00	0.00
1,520.0	12.40	34.62	1,515.2	55.0	38.0	66.8	2.00	2.00	0.00
1,560.0	13.20	34.62	1,554.2	62.3	43.0	75.7	2.00	2.00	0.00
1,600.0	14.00	34.62	1,593.1	70.0	48.3	85.1	2.00	2.00	0.00
1,639.5	14.79	34.62	1,631.3	78.1	53.9	94.9	2.00	2.00	0.00
1,640.0	14.79	34.62	1,631.8	78.2	54.0	95.0	0.00	0.00	0.00
1,680.0	14.79	34.62	1,670.5	86.6	59.8	105.3	0.00	0.00	0.00
1,720.0	14.79	34.62	1,709.1	95.0	65.6	115.5	0.00	0.00	0.00
1,760.0	14.79	34.62	1,747.8	103.4	71.4	125.7	0.00	0.00	0.00
1,800.0	14.79	34.62	1,786.5	111.8	77.2	135.9	0.00	0.00	0.00
1,840.0	14.79	34.62	1,825.2	120.2	83.0	146.1	0.00	0.00	0.00
1,880.0	14.79	34.62	1,863.8	128.6	88.8	156.3	0.00	0.00	0.00
1,920.0	14.79	34.62	1,902.5	137.0	94.6	166.5	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dechant State H36-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4832.0ft (Original Well Elev)
Project:	SEC.36-T3N-R65W	MD Reference:	WELL @ 4832.0ft (Original Well Elev)
Site:	Dechant State H36-21D Pad Sec.36-T3N-R65W	North Reference:	True
Well:	Dechant State H36-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dechant State H36-21D Plan #2 (9-01-10)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,960.0	14.79	34.62	1,941.2	145.4	100.4	176.7	0.00	0.00	0.00	
2,000.0	14.79	34.62	1,979.9	153.8	106.2	186.9	0.00	0.00	0.00	
2,040.0	14.79	34.62	2,018.5	162.2	112.0	197.2	0.00	0.00	0.00	
2,080.0	14.79	34.62	2,057.2	170.7	117.8	207.4	0.00	0.00	0.00	
2,120.0	14.79	34.62	2,095.9	179.1	123.6	217.6	0.00	0.00	0.00	
2,160.0	14.79	34.62	2,134.6	187.5	129.4	227.8	0.00	0.00	0.00	
2,200.0	14.79	34.62	2,173.2	195.9	135.2	238.0	0.00	0.00	0.00	
2,240.0	14.79	34.62	2,211.9	204.3	141.0	248.2	0.00	0.00	0.00	
2,280.0	14.79	34.62	2,250.6	212.7	146.8	258.4	0.00	0.00	0.00	
2,320.0	14.79	34.62	2,289.3	221.1	152.6	268.6	0.00	0.00	0.00	
2,360.0	14.79	34.62	2,327.9	229.5	158.4	278.8	0.00	0.00	0.00	
2,400.0	14.79	34.62	2,366.6	237.9	164.2	289.0	0.00	0.00	0.00	
2,440.0	14.79	34.62	2,405.3	246.3	170.0	299.3	0.00	0.00	0.00	
2,480.0	14.79	34.62	2,444.0	254.7	175.8	309.5	0.00	0.00	0.00	
2,520.0	14.79	34.62	2,482.6	263.1	181.6	319.7	0.00	0.00	0.00	
2,560.0	14.79	34.62	2,521.3	271.5	187.4	329.9	0.00	0.00	0.00	
2,600.0	14.79	34.62	2,560.0	279.9	193.2	340.1	0.00	0.00	0.00	
2,640.0	14.79	34.62	2,598.7	288.3	199.0	350.3	0.00	0.00	0.00	
2,680.0	14.79	34.62	2,637.3	296.7	204.8	360.5	0.00	0.00	0.00	
2,720.0	14.79	34.62	2,676.0	305.1	210.6	370.7	0.00	0.00	0.00	
2,760.0	14.79	34.62	2,714.7	313.5	216.4	380.9	0.00	0.00	0.00	
2,800.0	14.79	34.62	2,753.4	321.9	222.2	391.2	0.00	0.00	0.00	
2,840.0	14.79	34.62	2,792.0	330.3	228.0	401.4	0.00	0.00	0.00	
2,880.0	14.79	34.62	2,830.7	338.7	233.8	411.6	0.00	0.00	0.00	
2,920.0	14.79	34.62	2,869.4	347.1	239.6	421.8	0.00	0.00	0.00	
2,960.0	14.79	34.62	2,908.1	355.5	245.4	432.0	0.00	0.00	0.00	
3,000.0	14.79	34.62	2,946.7	363.9	251.2	442.2	0.00	0.00	0.00	
3,040.0	14.79	34.62	2,985.4	372.3	257.0	452.4	0.00	0.00	0.00	
3,080.0	14.79	34.62	3,024.1	380.7	262.8	462.6	0.00	0.00	0.00	
3,120.0	14.79	34.62	3,062.8	389.1	268.6	472.8	0.00	0.00	0.00	
3,160.0	14.79	34.62	3,101.4	397.5	274.4	483.1	0.00	0.00	0.00	
3,200.0	14.79	34.62	3,140.1	405.9	280.2	493.3	0.00	0.00	0.00	
3,240.0	14.79	34.62	3,178.8	414.3	286.0	503.5	0.00	0.00	0.00	
3,280.0	14.79	34.62	3,217.5	422.7	291.8	513.7	0.00	0.00	0.00	
3,320.0	14.79	34.62	3,256.1	431.1	297.6	523.9	0.00	0.00	0.00	
3,360.0	14.79	34.62	3,294.8	439.6	303.4	534.1	0.00	0.00	0.00	
3,400.0	14.79	34.62	3,333.5	448.0	309.2	544.3	0.00	0.00	0.00	
3,440.0	14.79	34.62	3,372.2	456.4	315.0	554.5	0.00	0.00	0.00	
3,480.0	14.79	34.62	3,410.8	464.8	320.8	564.7	0.00	0.00	0.00	
3,520.0	14.79	34.62	3,449.5	473.2	326.6	574.9	0.00	0.00	0.00	
3,560.0	14.79	34.62	3,488.2	481.6	332.4	585.2	0.00	0.00	0.00	
3,600.0	14.79	34.62	3,526.9	490.0	338.2	595.4	0.00	0.00	0.00	
3,640.0	14.79	34.62	3,565.5	498.4	344.0	605.6	0.00	0.00	0.00	
3,680.0	14.79	34.62	3,604.2	506.8	349.8	615.8	0.00	0.00	0.00	
3,720.0	14.79	34.62	3,642.9	515.2	355.6	626.0	0.00	0.00	0.00	
3,760.0	14.79	34.62	3,681.6	523.6	361.4	636.2	0.00	0.00	0.00	
3,800.0	14.79	34.62	3,720.2	532.0	367.2	646.4	0.00	0.00	0.00	
3,840.0	14.79	34.62	3,758.9	540.4	373.0	656.6	0.00	0.00	0.00	
3,880.0	14.79	34.62	3,797.6	548.8	378.8	666.8	0.00	0.00	0.00	
3,920.0	14.79	34.62	3,836.3	557.2	384.6	677.1	0.00	0.00	0.00	
3,960.0	14.79	34.62	3,874.9	565.6	390.4	687.3	0.00	0.00	0.00	
4,000.0	14.79	34.62	3,913.6	574.0	396.2	697.5	0.00	0.00	0.00	
4,040.0	14.79	34.62	3,952.3	582.4	402.0	707.7	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dechant State H36-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4832.0ft (Original Well Elev)
Project:	SEC.36-T3N-R65W	MD Reference:	WELL @ 4832.0ft (Original Well Elev)
Site:	Dechant State H36-21D Pad Sec.36-T3N-R65W	North Reference:	True
Well:	Dechant State H36-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dechant State H36-21D Plan #2 (9-01-10)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,080.0	14.79	34.62	3,991.0	590.8	407.8	717.9	0.00	0.00	0.00
4,120.0	14.79	34.62	4,029.6	599.2	413.6	728.1	0.00	0.00	0.00
4,160.0	14.79	34.62	4,068.3	607.6	419.4	738.3	0.00	0.00	0.00
4,200.0	14.79	34.62	4,107.0	616.0	425.2	748.5	0.00	0.00	0.00
4,240.0	14.79	34.62	4,145.7	624.4	431.0	758.7	0.00	0.00	0.00
4,280.0	14.79	34.62	4,184.3	632.8	436.8	769.0	0.00	0.00	0.00
4,320.0	14.79	34.62	4,223.0	641.2	442.6	779.2	0.00	0.00	0.00
4,360.0	14.79	34.62	4,261.7	649.6	448.4	789.4	0.00	0.00	0.00
4,400.0	14.79	34.62	4,300.4	658.0	454.2	799.6	0.00	0.00	0.00
4,440.0	14.79	34.62	4,339.0	666.4	460.0	809.8	0.00	0.00	0.00
4,480.0	14.79	34.62	4,377.7	674.8	465.8	820.0	0.00	0.00	0.00
4,520.0	14.79	34.62	4,416.4	683.2	471.6	830.2	0.00	0.00	0.00
4,560.0	14.79	34.62	4,455.1	691.6	477.4	840.4	0.00	0.00	0.00
4,600.0	14.79	34.62	4,493.7	700.0	483.2	850.6	0.00	0.00	0.00
4,640.0	14.79	34.62	4,532.4	708.5	489.0	860.8	0.00	0.00	0.00
4,680.0	14.79	34.62	4,571.1	716.9	494.8	871.1	0.00	0.00	0.00
4,720.0	14.79	34.62	4,609.8	725.3	500.6	881.3	0.00	0.00	0.00
4,760.0	14.79	34.62	4,648.4	733.7	506.4	891.5	0.00	0.00	0.00
4,800.0	14.79	34.62	4,687.1	742.1	512.2	901.7	0.00	0.00	0.00
4,840.0	14.79	34.62	4,725.8	750.5	518.0	911.9	0.00	0.00	0.00
4,880.0	14.79	34.62	4,764.5	758.9	523.8	922.1	0.00	0.00	0.00
4,884.4	14.79	34.62	4,768.7	759.8	524.5	923.2	0.00	0.00	0.00
4,920.0	14.08	34.62	4,803.2	767.1	529.5	932.1	2.00	-2.00	0.00
4,960.0	13.28	34.62	4,842.1	774.9	534.9	941.6	2.00	-2.00	0.00
5,000.0	12.48	34.62	4,881.0	782.2	540.0	950.5	2.00	-2.00	0.00
5,040.0	11.68	34.62	4,920.2	789.1	544.7	958.9	2.00	-2.00	0.00
5,080.0	10.88	34.62	4,959.4	795.5	549.2	966.7	2.00	-2.00	0.00
5,120.0	10.08	34.62	4,998.7	801.5	553.3	973.9	2.00	-2.00	0.00
5,160.0	9.28	34.62	5,038.2	807.1	557.1	980.7	2.00	-2.00	0.00
5,200.0	8.48	34.62	5,077.7	812.1	560.6	986.8	2.00	-2.00	0.00
5,240.0	7.68	34.62	5,117.3	816.8	563.8	992.5	2.00	-2.00	0.00
5,280.0	6.88	34.62	5,157.0	820.9	566.7	997.5	2.00	-2.00	0.00
5,320.0	6.08	34.62	5,196.7	824.7	569.2	1,002.0	2.00	-2.00	0.00
5,360.0	5.28	34.62	5,236.5	827.9	571.5	1,006.0	2.00	-2.00	0.00
5,400.0	4.48	34.62	5,276.4	830.7	573.4	1,009.4	2.00	-2.00	0.00
5,440.0	3.68	34.62	5,316.3	833.0	575.0	1,012.2	2.00	-2.00	0.00
5,480.0	2.88	34.62	5,356.2	834.9	576.3	1,014.5	2.00	-2.00	0.00
5,520.0	2.08	34.62	5,396.2	836.4	577.3	1,016.3	2.00	-2.00	0.00
5,560.0	1.28	34.62	5,436.1	837.3	578.0	1,017.4	2.00	-2.00	0.00
5,600.0	0.48	34.62	5,476.1	837.8	578.3	1,018.0	2.00	-2.00	0.00
5,623.9	0.00	0.00	5,500.0	837.9	578.4	1,018.1	2.00	-2.00	-145.01
TARGET BHL 2500'FNL, 2500'FWL									
5,640.0	0.00	0.00	5,516.1	837.9	578.4	1,018.1	0.00	0.00	0.00
5,680.0	0.00	0.00	5,556.1	837.9	578.4	1,018.1	0.00	0.00	0.00
5,720.0	0.00	0.00	5,596.1	837.9	578.4	1,018.1	0.00	0.00	0.00
5,760.0	0.00	0.00	5,636.1	837.9	578.4	1,018.1	0.00	0.00	0.00
5,800.0	0.00	0.00	5,676.1	837.9	578.4	1,018.1	0.00	0.00	0.00
5,840.0	0.00	0.00	5,716.1	837.9	578.4	1,018.1	0.00	0.00	0.00
5,880.0	0.00	0.00	5,756.1	837.9	578.4	1,018.1	0.00	0.00	0.00
5,920.0	0.00	0.00	5,796.1	837.9	578.4	1,018.1	0.00	0.00	0.00
5,960.0	0.00	0.00	5,836.1	837.9	578.4	1,018.1	0.00	0.00	0.00
6,000.0	0.00	0.00	5,876.1	837.9	578.4	1,018.1	0.00	0.00	0.00
6,040.0	0.00	0.00	5,916.1	837.9	578.4	1,018.1	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dechant State H36-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4832.0ft (Original Well Elev)
Project:	SEC.36-T3N-R65W	MD Reference:	WELL @ 4832.0ft (Original Well Elev)
Site:	Dechant State H36-21D Pad Sec.36-T3N-R65W	North Reference:	True
Well:	Dechant State H36-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dechant State H36-21D Plan #2 (9-01-11)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
6,080.0	0.00	0.00	5,956.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,120.0	0.00	0.00	5,996.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,160.0	0.00	0.00	6,036.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,076.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,240.0	0.00	0.00	6,116.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,280.0	0.00	0.00	6,156.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,320.0	0.00	0.00	6,196.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,360.0	0.00	0.00	6,236.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,276.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,440.0	0.00	0.00	6,316.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,480.0	0.00	0.00	6,356.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,520.0	0.00	0.00	6,396.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,560.0	0.00	0.00	6,436.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,476.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,640.0	0.00	0.00	6,516.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,680.0	0.00	0.00	6,556.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,720.0	0.00	0.00	6,596.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,760.0	0.00	0.00	6,636.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,676.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,840.0	0.00	0.00	6,716.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,880.0	0.00	0.00	6,756.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,885.9	0.00	0.00	6,762.0	837.9	578.4	1,018.1	0.00	0.00	0.00	
NIORARA - TARGET CIRCLE 2500'FNL, 2500'FWL										
6,920.0	0.00	0.00	6,796.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
6,960.0	0.00	0.00	6,836.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,876.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,040.0	0.00	0.00	6,916.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,080.0	0.00	0.00	6,956.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,120.0	0.00	0.00	6,996.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,160.0	0.00	0.00	7,036.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,076.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,205.9	0.00	0.00	7,082.0	837.9	578.4	1,018.1	0.00	0.00	0.00	
CODELL										
7,240.0	0.00	0.00	7,116.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,280.0	0.00	0.00	7,156.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,320.0	0.00	0.00	7,196.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,360.0	0.00	0.00	7,236.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,276.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,440.0	0.00	0.00	7,316.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,480.0	0.00	0.00	7,356.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,520.0	0.00	0.00	7,396.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,560.0	0.00	0.00	7,436.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,476.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,605.9	0.00	0.00	7,482.0	837.9	578.4	1,018.1	0.00	0.00	0.00	
D-SAND										
7,640.0	0.00	0.00	7,516.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,680.0	0.00	0.00	7,556.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,685.9	0.00	0.00	7,562.0	837.9	578.4	1,018.1	0.00	0.00	0.00	
J-SAND										
7,720.0	0.00	0.00	7,596.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,760.0	0.00	0.00	7,636.1	837.9	578.4	1,018.1	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,676.1	837.9	578.4	1,018.1	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Dechant State H36-21D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4832.0ft (Original Well Elev)
Project:	SEC.36-T3N-R65W	MD Reference:	WELL @ 4832.0ft (Original Well Elev)
Site:	Dechant State H36-21D Pad Sec.36-T3N-R65W	North Reference:	True
Well:	Dechant State H36-21D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Dechant State H36-21D Plan #2 (9-01-10)		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,835.9	0.00	0.00	7,712.0	837.9	578.4	1,018.1	0.00	0.00	0.00
HARDLINES 115'S & 111'E OF BHL									

Targets

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
HARDLINES 115'S & 111'E OF BHL	- plan misses target center by 159.8ft at 7835.9ft MD (7712.0 TVD, 837.9 N, 578.4 E)	0.00	0.00	7,712.0	722.9	689.4	1,310,278.76	3,247,988.49	40° 10' 54.135 N	104° 36' 44.758 W
- Polygon										
Point 1				7,712.0	0.0	0.0	1,310,278.76	3,247,988.49		
Point 2				7,712.0	0.0	-200.0	1,310,276.76	3,247,788.51		
Point 3				7,712.0	0.0	0.0	1,310,278.76	3,247,988.49		
Point 4				7,712.0	200.0	0.0	1,310,478.74	3,247,986.50		
TARGET CIRCLE 250' F	- plan hits target center	0.00	0.00	6,762.0	837.9	578.4	1,310,392.64	3,247,876.35	40° 10' 55.272 N	104° 36' 46.188 W
- Circle (radius 75.0)										
TARGET BHL 2500' F	- plan hits target center	0.00	0.00	5,500.0	837.9	578.4	1,310,392.64	3,247,876.35	40° 10' 55.272 N	104° 36' 46.188 W
- Point										

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
700.0	700.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,885.9	6,762.0	NIOBRARA		0.00	
7,205.9	7,082.0	CODELL		0.00	
7,605.9	7,482.0	D-SAND		0.00	
7,685.9	7,562.0	J-SAND		0.00	