



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.23-T4N-R64W

Coleman C23-29D Pad Sec.23-T4N-R64W

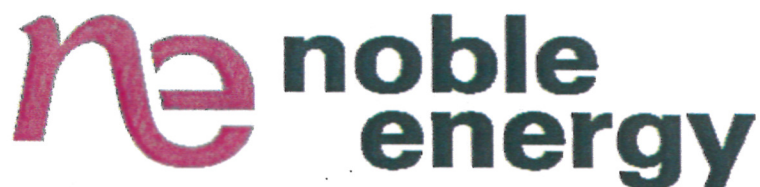
Coleman C23-29D

Wellbore #1

Plan: Plan #1 (08-06-09)

Standard Planning Report

06 August, 2009



Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Coleman C23-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4665.0ft (Original Well Elev)
Project:	SEC.23-T4N-R64W	MD Reference:	WELL @ 4665.0ft (Original Well Elev)
Site:	Coleman C23-29D Pad Sec.23-T4N-R64W	North Reference:	True
Well:	Coleman C23-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (08-06-09)		

Project	SEC.23-T4N-R64W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Coleman C23-29D Pad Sec.23-T4N-R64W			
Site Position:		Northing:	1,354,883.07 ft	Latitude:	40° 18' 12.420 N
From:	Lat/Long	Easting:	3,271,948.37 ft	Longitude:	104° 31' 29.748 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.63 °

Well	Coleman C23-29D					
Well Position	+N/-S	0.0 ft	Northing:	1,354,883.06 ft	Latitude:	40° 18' 12.420 N
	+E/-W	0.0 ft	Easting:	3,271,948.37 ft	Longitude:	104° 31' 29.748 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,652.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	8/6/2009	8.94	67.08	53,322

Design	Plan #1 (08-06-09)			
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	47.78

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	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,200.9	16.02	47.78	2,190.5	74.7	82.4	2.00	2.00	0.00	47.78	
4,509.5	16.02	47.78	4,409.5	502.8	554.1	0.00	0.00	0.00	0.00	
5,310.4	0.00	0.00	5,200.0	577.5	636.5	2.00	-2.00	0.00	180.00	TARGET BHL 75'FI
7,035.4	0.00	0.00	6,925.0	577.5	636.5	0.00	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Coleman C23-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4665.0ft (Original Well Elev)
Project:	SEC.23-T4N-R64W	MD Reference:	WELL @ 4665.0ft (Original Well Elev)
Site:	Coleman C23-29D Pad Sec.23-T4N-R64W	North Reference:	True
Well:	Coleman C23-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (08-06-09)		

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
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
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	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
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	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
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	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
1,440.0	0.80	47.78	1,440.0	0.2	0.2	0.3	2.00	2.00	0.00
1,480.0	1.60	47.78	1,480.0	0.8	0.8	1.1	2.00	2.00	0.00
1,520.0	2.40	47.78	1,520.0	1.7	1.9	2.5	2.00	2.00	0.00
1,560.0	3.20	47.78	1,559.9	3.0	3.3	4.5	2.00	2.00	0.00
1,600.0	4.00	47.78	1,599.8	4.7	5.2	7.0	2.00	2.00	0.00
1,640.0	4.80	47.78	1,639.7	6.8	7.4	10.0	2.00	2.00	0.00
1,680.0	5.60	47.78	1,679.6	9.2	10.1	13.7	2.00	2.00	0.00
1,720.0	6.40	47.78	1,719.3	12.0	13.2	17.9	2.00	2.00	0.00
1,760.0	7.20	47.78	1,759.1	15.2	16.7	22.6	2.00	2.00	0.00
1,800.0	8.00	47.78	1,798.7	18.7	20.6	27.9	2.00	2.00	0.00
1,840.0	8.80	47.78	1,838.3	22.7	25.0	33.7	2.00	2.00	0.00
1,880.0	9.60	47.78	1,877.8	27.0	29.7	40.1	2.00	2.00	0.00
1,920.0	10.40	47.78	1,917.1	31.6	34.9	47.1	2.00	2.00	0.00
1,960.0	11.20	47.78	1,956.4	36.7	40.4	54.6	2.00	2.00	0.00
2,000.0	12.00	47.78	1,995.6	42.1	46.4	62.6	2.00	2.00	0.00
2,040.0	12.80	47.78	2,034.7	47.8	52.7	71.2	2.00	2.00	0.00
2,080.0	13.60	47.78	2,073.6	54.0	59.5	80.3	2.00	2.00	0.00
2,120.0	14.40	47.78	2,112.4	60.5	66.7	90.0	2.00	2.00	0.00

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Site: Coleman C23-29D Pad Sec.23-T4N-R64W
Well: Coleman C23-29D
Wellbore: Wellbore #1
Design: Plan #1 (08-06-09)

Local Co-ordinate Reference: Well Coleman C23-29D
TVD Reference: WELL @ 4665.0ft (Original Well Elev)
MD Reference: WELL @ 4665.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
2,160.0	15.20	47.78	2,151.1	67.3	74.2	100.2	2.00	2.00	0.00
2,200.0	16.00	47.78	2,189.6	74.6	82.2	111.0	2.00	2.00	0.00
2,200.9	16.02	47.78	2,190.5	74.7	82.4	111.2	2.00	2.00	0.00
2,240.0	16.02	47.78	2,228.1	82.0	90.4	122.0	0.00	0.00	0.00
2,280.0	16.02	47.78	2,266.5	89.4	98.5	133.1	0.00	0.00	0.00
2,320.0	16.02	47.78	2,305.0	96.8	106.7	144.1	0.00	0.00	0.00
2,360.0	16.02	47.78	2,343.4	104.2	114.9	155.1	0.00	0.00	0.00
2,400.0	16.02	47.78	2,381.9	111.7	123.1	166.2	0.00	0.00	0.00
2,440.0	16.02	47.78	2,420.3	119.1	131.2	177.2	0.00	0.00	0.00
2,480.0	16.02	47.78	2,458.8	126.5	139.4	188.2	0.00	0.00	0.00
2,520.0	16.02	47.78	2,497.2	133.9	147.6	199.3	0.00	0.00	0.00
2,560.0	16.02	47.78	2,535.7	141.3	155.7	210.3	0.00	0.00	0.00
2,600.0	16.02	47.78	2,574.1	148.7	163.9	221.3	0.00	0.00	0.00
2,640.0	16.02	47.78	2,612.6	156.2	172.1	232.4	0.00	0.00	0.00
2,680.0	16.02	47.78	2,651.0	163.6	180.3	243.4	0.00	0.00	0.00
2,720.0	16.02	47.78	2,689.5	171.0	188.4	254.5	0.00	0.00	0.00
2,760.0	16.02	47.78	2,727.9	178.4	196.6	265.5	0.00	0.00	0.00
2,800.0	16.02	47.78	2,766.3	185.8	204.8	276.5	0.00	0.00	0.00
2,840.0	16.02	47.78	2,804.8	193.2	213.0	287.6	0.00	0.00	0.00
2,880.0	16.02	47.78	2,843.2	200.7	221.1	298.6	0.00	0.00	0.00
2,920.0	16.02	47.78	2,881.7	208.1	229.3	309.6	0.00	0.00	0.00
2,960.0	16.02	47.78	2,920.1	215.5	237.5	320.7	0.00	0.00	0.00
3,000.0	16.02	47.78	2,958.6	222.9	245.7	331.7	0.00	0.00	0.00
3,040.0	16.02	47.78	2,997.0	230.3	253.8	342.8	0.00	0.00	0.00
3,080.0	16.02	47.78	3,035.5	237.7	262.0	353.8	0.00	0.00	0.00
3,120.0	16.02	47.78	3,073.9	245.2	270.2	364.8	0.00	0.00	0.00
3,160.0	16.02	47.78	3,112.4	252.6	278.4	375.9	0.00	0.00	0.00
3,200.0	16.02	47.78	3,150.8	260.0	286.5	386.9	0.00	0.00	0.00
3,240.0	16.02	47.78	3,189.3	267.4	294.7	397.9	0.00	0.00	0.00
3,280.0	16.02	47.78	3,227.7	274.8	302.9	409.0	0.00	0.00	0.00
3,320.0	16.02	47.78	3,266.2	282.2	311.1	420.0	0.00	0.00	0.00
3,360.0	16.02	47.78	3,304.6	289.7	319.2	431.1	0.00	0.00	0.00
3,400.0	16.02	47.78	3,343.1	297.1	327.4	442.1	0.00	0.00	0.00
3,440.0	16.02	47.78	3,381.5	304.5	335.6	453.1	0.00	0.00	0.00
3,480.0	16.02	47.78	3,420.0	311.9	343.7	464.2	0.00	0.00	0.00
3,520.0	16.02	47.78	3,458.4	319.3	351.9	475.2	0.00	0.00	0.00
3,560.0	16.02	47.78	3,496.8	326.7	360.1	486.2	0.00	0.00	0.00
3,600.0	16.02	47.78	3,535.3	334.2	368.3	497.3	0.00	0.00	0.00
3,640.0	16.02	47.78	3,573.7	341.6	376.4	508.3	0.00	0.00	0.00
3,680.0	16.02	47.78	3,612.2	349.0	384.6	519.4	0.00	0.00	0.00
3,720.0	16.02	47.78	3,650.6	356.4	392.8	530.4	0.00	0.00	0.00
3,760.0	16.02	47.78	3,689.1	363.8	401.0	541.4	0.00	0.00	0.00
3,800.0	16.02	47.78	3,727.5	371.2	409.1	552.5	0.00	0.00	0.00
3,840.0	16.02	47.78	3,766.0	378.7	417.3	563.5	0.00	0.00	0.00
3,880.0	16.02	47.78	3,804.4	386.1	425.5	574.5	0.00	0.00	0.00
3,920.0	16.02	47.78	3,842.9	393.5	433.7	585.6	0.00	0.00	0.00
3,960.0	16.02	47.78	3,881.3	400.9	441.8	596.6	0.00	0.00	0.00
4,000.0	16.02	47.78	3,919.8	408.3	450.0	607.6	0.00	0.00	0.00
4,040.0	16.02	47.78	3,958.2	415.7	458.2	618.7	0.00	0.00	0.00
4,080.0	16.02	47.78	3,996.7	423.2	466.4	629.7	0.00	0.00	0.00
4,120.0	16.02	47.78	4,035.1	430.6	474.5	640.8	0.00	0.00	0.00
4,160.0	16.02	47.78	4,073.6	438.0	482.7	651.8	0.00	0.00	0.00
4,200.0	16.02	47.78	4,112.0	445.4	490.9	662.8	0.00	0.00	0.00
4,240.0	16.02	47.78	4,150.4	452.8	499.0	673.9	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
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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)
4,280.0	16.02	47.78	4,188.9	460.2	507.2	684.9	0.00	0.00	0.00
4,320.0	16.02	47.78	4,227.3	467.7	515.4	695.9	0.00	0.00	0.00
4,360.0	16.02	47.78	4,265.8	475.1	523.6	707.0	0.00	0.00	0.00
4,400.0	16.02	47.78	4,304.2	482.5	531.7	718.0	0.00	0.00	0.00
4,440.0	16.02	47.78	4,342.7	489.9	539.9	729.1	0.00	0.00	0.00
4,480.0	16.02	47.78	4,381.1	497.3	548.1	740.1	0.00	0.00	0.00
4,509.5	16.02	47.78	4,409.5	502.8	554.1	748.2	0.00	0.00	0.00
4,520.0	15.81	47.78	4,419.6	504.7	556.3	751.1	2.00	-2.00	0.00
4,560.0	15.01	47.78	4,458.1	511.9	564.1	761.7	2.00	-2.00	0.00
4,600.0	14.21	47.78	4,496.9	518.7	571.6	771.8	2.00	-2.00	0.00
4,640.0	13.41	47.78	4,535.7	525.1	578.7	781.4	2.00	-2.00	0.00
4,680.0	12.61	47.78	4,574.7	531.1	585.3	790.4	2.00	-2.00	0.00
4,720.0	11.81	47.78	4,613.8	536.8	591.6	798.8	2.00	-2.00	0.00
4,760.0	11.01	47.78	4,653.0	542.1	597.5	806.7	2.00	-2.00	0.00
4,800.0	10.21	47.78	4,692.3	547.1	602.9	814.1	2.00	-2.00	0.00
4,840.0	9.41	47.78	4,731.7	551.6	608.0	820.9	2.00	-2.00	0.00
4,880.0	8.61	47.78	4,771.2	555.9	612.6	827.2	2.00	-2.00	0.00
4,920.0	7.81	47.78	4,810.8	559.7	616.8	832.9	2.00	-2.00	0.00
4,960.0	7.01	47.78	4,850.5	563.2	620.6	838.1	2.00	-2.00	0.00
5,000.0	6.21	47.78	4,890.2	566.2	624.0	842.7	2.00	-2.00	0.00
5,040.0	5.41	47.78	4,930.0	569.0	627.0	846.7	2.00	-2.00	0.00
5,080.0	4.61	47.78	4,969.8	571.3	629.6	850.2	2.00	-2.00	0.00
5,120.0	3.81	47.78	5,009.7	573.3	631.8	853.1	2.00	-2.00	0.00
5,160.0	3.01	47.78	5,049.7	574.9	633.6	855.5	2.00	-2.00	0.00
5,200.0	2.21	47.78	5,089.6	576.1	634.9	857.3	2.00	-2.00	0.00
5,240.0	1.41	47.78	5,129.6	577.0	635.8	858.6	2.00	-2.00	0.00
5,280.0	0.61	47.78	5,169.6	577.4	636.4	859.3	2.00	-2.00	0.00
5,310.4	0.00	0.00	5,200.0	577.5	636.5	859.5	2.00	-2.00	-157.13
TARGET BHL 75'FNL, 1320'FWL									
5,320.0	0.00	0.00	5,209.6	577.5	636.5	859.5	0.00	0.00	0.00
5,360.0	0.00	0.00	5,249.6	577.5	636.5	859.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,289.6	577.5	636.5	859.5	0.00	0.00	0.00
5,440.0	0.00	0.00	5,329.6	577.5	636.5	859.5	0.00	0.00	0.00
5,480.0	0.00	0.00	5,369.6	577.5	636.5	859.5	0.00	0.00	0.00
5,520.0	0.00	0.00	5,409.6	577.5	636.5	859.5	0.00	0.00	0.00
5,560.0	0.00	0.00	5,449.6	577.5	636.5	859.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,489.6	577.5	636.5	859.5	0.00	0.00	0.00
5,640.0	0.00	0.00	5,529.6	577.5	636.5	859.5	0.00	0.00	0.00
5,680.0	0.00	0.00	5,569.6	577.5	636.5	859.5	0.00	0.00	0.00
5,720.0	0.00	0.00	5,609.6	577.5	636.5	859.5	0.00	0.00	0.00
5,760.0	0.00	0.00	5,649.6	577.5	636.5	859.5	0.00	0.00	0.00
5,800.0	0.00	0.00	5,689.6	577.5	636.5	859.5	0.00	0.00	0.00
5,840.0	0.00	0.00	5,729.6	577.5	636.5	859.5	0.00	0.00	0.00
5,880.0	0.00	0.00	5,769.6	577.5	636.5	859.5	0.00	0.00	0.00
5,920.0	0.00	0.00	5,809.6	577.5	636.5	859.5	0.00	0.00	0.00
5,960.0	0.00	0.00	5,849.6	577.5	636.5	859.5	0.00	0.00	0.00
6,000.0	0.00	0.00	5,889.6	577.5	636.5	859.5	0.00	0.00	0.00
6,040.0	0.00	0.00	5,929.6	577.5	636.5	859.5	0.00	0.00	0.00
6,080.0	0.00	0.00	5,969.6	577.5	636.5	859.5	0.00	0.00	0.00
6,120.0	0.00	0.00	6,009.6	577.5	636.5	859.5	0.00	0.00	0.00
6,160.0	0.00	0.00	6,049.6	577.5	636.5	859.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,089.6	577.5	636.5	859.5	0.00	0.00	0.00
6,240.0	0.00	0.00	6,129.6	577.5	636.5	859.5	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Coleman C23-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4665.0ft (Original Well Elev)
Project:	SEC.23-T4N-R64W	MD Reference:	WELL @ 4665.0ft (Original Well Elev)
Site:	Coleman C23-29D Pad Sec.23-T4N-R64W	North Reference:	True
Well:	Coleman C23-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (08-06-09)		

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)
6,280.0	0.00	0.00	6,169.6	577.5	636.5	859.5	0.00	0.00	0.00
6,320.0	0.00	0.00	6,209.6	577.5	636.5	859.5	0.00	0.00	0.00
6,360.0	0.00	0.00	6,249.6	577.5	636.5	859.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,289.6	577.5	636.5	859.5	0.00	0.00	0.00
6,440.0	0.00	0.00	6,329.6	577.5	636.5	859.5	0.00	0.00	0.00
6,480.0	0.00	0.00	6,369.6	577.5	636.5	859.5	0.00	0.00	0.00
6,520.0	0.00	0.00	6,409.6	577.5	636.5	859.5	0.00	0.00	0.00
6,560.0	0.00	0.00	6,449.6	577.5	636.5	859.5	0.00	0.00	0.00
6,597.4	0.00	0.00	6,487.0	577.5	636.5	859.5	0.00	0.00	0.00
NIOBRARA									
6,600.0	0.00	0.00	6,489.6	577.5	636.5	859.5	0.00	0.00	0.00
6,640.0	0.00	0.00	6,529.6	577.5	636.5	859.5	0.00	0.00	0.00
6,680.0	0.00	0.00	6,569.6	577.5	636.5	859.5	0.00	0.00	0.00
6,720.0	0.00	0.00	6,609.6	577.5	636.5	859.5	0.00	0.00	0.00
6,760.0	0.00	0.00	6,649.6	577.5	636.5	859.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,689.6	577.5	636.5	859.5	0.00	0.00	0.00
6,840.0	0.00	0.00	6,729.6	577.5	636.5	859.5	0.00	0.00	0.00
6,880.0	0.00	0.00	6,769.6	577.5	636.5	859.5	0.00	0.00	0.00
6,885.4	0.00	0.00	6,775.0	577.5	636.5	859.5	0.00	0.00	0.00
CODELL									
6,920.0	0.00	0.00	6,809.6	577.5	636.5	859.5	0.00	0.00	0.00
6,960.0	0.00	0.00	6,849.6	577.5	636.5	859.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,889.6	577.5	636.5	859.5	0.00	0.00	0.00
7,035.4	0.00	0.00	6,925.0	577.5	636.5	859.5	0.00	0.00	0.00
HARDLINE 75°N 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
- Shape									
HARDLINE 75°N OF E	0.00	0.00	6,925.0	652.5	536.5	1,355,541.39	3,272,477.64	40° 18' 18.868 N	104° 31' 22.823 W
- plan misses target center by 125.0ft at 7035.4ft MD (6925.0 TVD, 577.5 N, 636.5 E)									
- Polygon									
Point 1			6,925.0	0.0	0.0	1,355,541.39	3,272,477.64		
Point 2			6,925.0	0.0	200.0	1,355,543.59	3,272,677.62		
TARGET BHL 75°FNL	0.00	0.00	5,200.0	577.5	636.5	1,355,467.54	3,272,578.44	40° 18' 18.127 N	104° 31' 21.533 W
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,597.4	6,487.0	NIOBRARA		0.00	
6,885.4	6,775.0	CODELL		0.00	