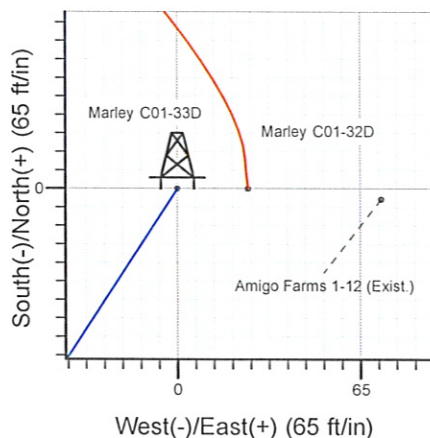
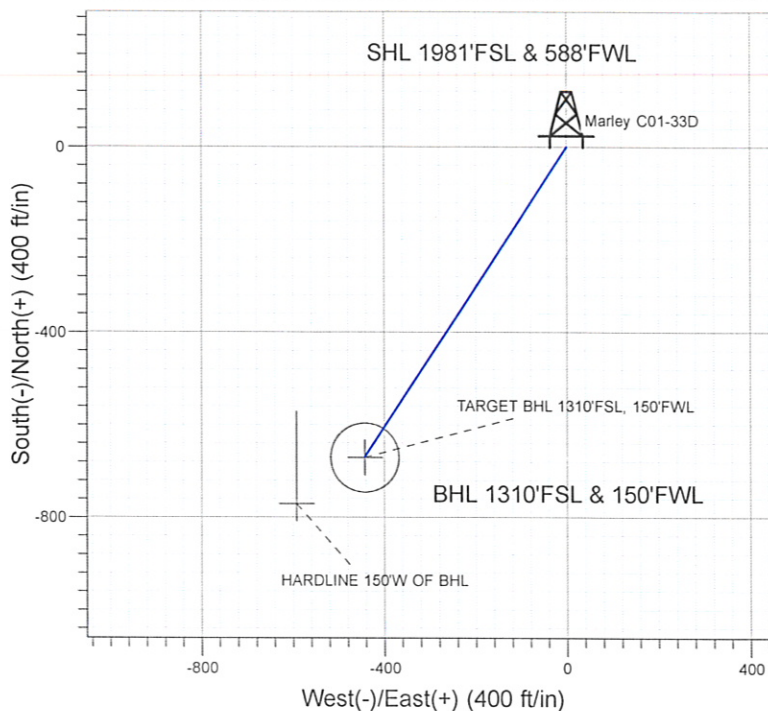
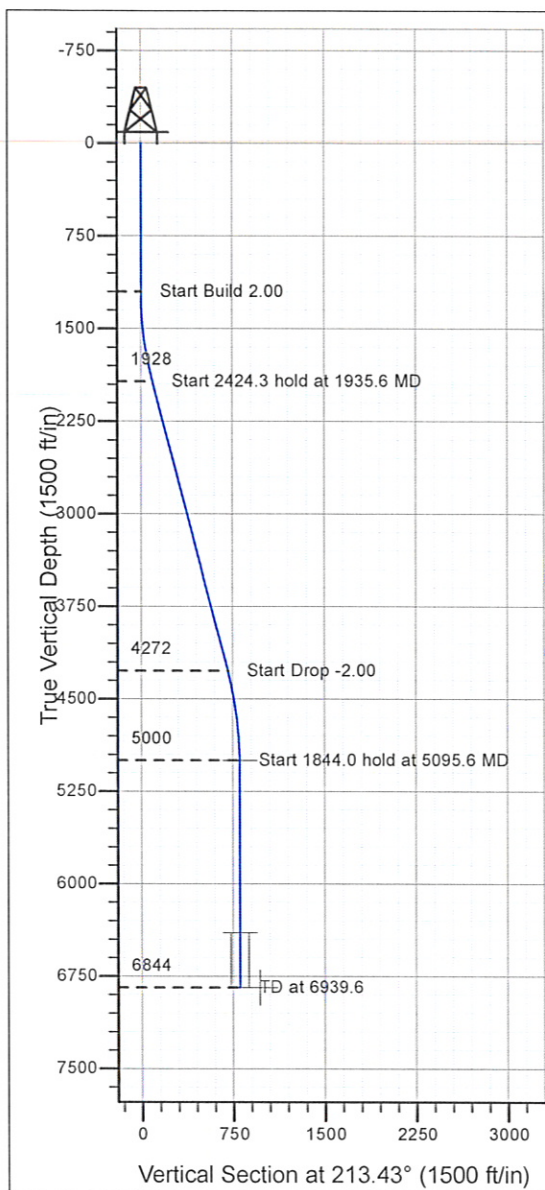


Well Name: Marley C01-33D

Surface Location: Marley C01-32D Pad Sec.1-T4N-R64W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4611.0
+N/-S+E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1368113.30 3277052.22 40° 20' 22.596 N 104° 30' 21.960 W
Original Well Elev WELL @ 4624.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Marley C01-32D Pad Sec.1-T4N-R64W
Marley C01-33D
Noble Marley C01-33D Plan #1 11-18-09
16:36, November 18 2009



Azimuths to True North
Magnetic North: 8.89°

Magnetic Field
Strength: 53314.0snT
Dip Angle: 67.11°
Date: 11/18/2009
Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1310'FSL, 150'FWL	5000.0	-670.6	-442.7	40° 20' 15.969 N	104° 30' 27.677 W	Point
TARGET CIRCLE 1310'FSL, 150'FWL	6398.0	-670.6	-442.7	40° 20' 15.969 N	104° 30' 27.677 W	Circle (Radius: 75.0)
HARDLINE 150'W OF BHL	6844.0	-770.6	-592.7	40° 20' 14.981 N	104° 30' 29.614 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	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1935.6	14.71	213.43	1927.6	-78.4	-51.8	2.00	213.43	93.9	
4	4360.0	14.71	213.43	4272.4	-592.2	-391.0	0.00	0.00	709.7	
5	5095.6	0.00	0.00	5000.0	-670.6	-442.7	2.00	180.00	803.6	TARGET BHL 1310'FSL, 150'FWL
6	6939.6	0.00	0.00	6844.0	-670.6	-442.7	0.00	0.00	803.6	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.1-T4N-R64W

Marley C01-32D Pad Sec.1-T4N-R64W

Marley C01-33D

Wellbore #1

Plan: Noble Marley C01-33D Plan #1 11-18-09

Standard Planning Report

18 November, 2009



Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.1-T4N-R64W
 Site: Marley C01-32D Pad Sec.1-T4N-R64W
 Well: Marley C01-33D
 Wellbore: Wellbore #1
 Design: Noble Marley C01-33D Plan #1 11-18-09

Local Co-ordinate Reference: Well Marley C01-33D
 TVD Reference: WELL @ 4624.0ft (Original Well Elev)
 MD Reference: WELL @ 4624.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Project	SEC.1-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	Marley C01-32D Pad Sec.1-T4N-R64W		
Site Position:		Northing:	1,368,113.59 ft
From:	Lat/Long	Easting:	3,277,077.31 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 20' 22.596 N
		Longitude:	104° 30' 21.636 W
		Grid Convergence:	0.64 °

Well	Marley C01-33D		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	-25.1 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40° 20' 22.596 N
		Longitude:	104° 30' 21.960 W
		Ground Level:	4,611.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/18/2009	8.89	67.11	53,314

Design	Noble Marley C01-33D Plan #1 11-18-09			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	213.43

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,935.6	14.71	213.43	1,927.6	-78.4	-51.8	2.00	2.00	0.00	213.43	
4,360.0	14.71	213.43	4,272.4	-592.2	-391.0	0.00	0.00	0.00	0.00	
5,095.6	0.00	0.00	5,000.0	-670.6	-442.7	2.00	-2.00	0.00	180.00	TARGET BHL 131C
6,939.6	0.00	0.00	6,844.0	-670.6	-442.7	0.00	0.00	0.00	0.00	

Database: EDM den0-adp01 Server Data
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Local Co-ordinate Reference: Well Marley C01-33D
TVD Reference: WELL @ 4624.0ft (Original Well Elev)
MD Reference: WELL @ 4624.0ft (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)
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	0.80	213.43	1,240.0	-0.2	-0.2	0.3	2.00	2.00	0.00
1,280.0	1.60	213.43	1,280.0	-0.9	-0.6	1.1	2.00	2.00	0.00
1,320.0	2.40	213.43	1,320.0	-2.1	-1.4	2.5	2.00	2.00	0.00
1,360.0	3.20	213.43	1,359.9	-3.7	-2.5	4.5	2.00	2.00	0.00
1,400.0	4.00	213.43	1,399.8	-5.8	-3.8	7.0	2.00	2.00	0.00
1,440.0	4.80	213.43	1,439.7	-8.4	-5.5	10.0	2.00	2.00	0.00
1,480.0	5.60	213.43	1,479.6	-11.4	-7.5	13.7	2.00	2.00	0.00
1,520.0	6.40	213.43	1,519.3	-14.9	-9.8	17.9	2.00	2.00	0.00
1,560.0	7.20	213.43	1,559.1	-18.9	-12.4	22.6	2.00	2.00	0.00
1,600.0	8.00	213.43	1,598.7	-23.3	-15.4	27.9	2.00	2.00	0.00
1,640.0	8.80	213.43	1,638.3	-28.1	-18.6	33.7	2.00	2.00	0.00
1,680.0	9.60	213.43	1,677.8	-33.5	-22.1	40.1	2.00	2.00	0.00
1,720.0	10.40	213.43	1,717.1	-39.3	-25.9	47.1	2.00	2.00	0.00
1,760.0	11.20	213.43	1,756.4	-45.5	-30.1	54.6	2.00	2.00	0.00
1,800.0	12.00	213.43	1,795.6	-52.2	-34.5	62.6	2.00	2.00	0.00
1,840.0	12.80	213.43	1,834.7	-59.4	-39.2	71.2	2.00	2.00	0.00
1,880.0	13.60	213.43	1,873.6	-67.0	-44.3	80.3	2.00	2.00	0.00
1,920.0	14.40	213.43	1,912.4	-75.1	-49.6	90.0	2.00	2.00	0.00
1,935.6	14.71	213.43	1,927.6	-78.4	-51.8	93.9	2.00	2.00	0.00
1,960.0	14.71	213.43	1,951.1	-83.6	-55.2	100.1	0.00	0.00	0.00
2,000.0	14.71	213.43	1,989.8	-92.0	-60.8	110.3	0.00	0.00	0.00
2,040.0	14.71	213.43	2,028.5	-100.5	-66.4	120.4	0.00	0.00	0.00
2,080.0	14.71	213.43	2,067.2	-109.0	-71.9	130.6	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.1-T4N-R64W
Site: Marley C01-32D Pad Sec.1-T4N-R64W
Well: Marley C01-33D
Wellbore: Wellbore #1
Design: Noble Marley C01-33D Plan #1 11-18-09

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MD Reference: WELL @ 4624.0ft (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)
2,120.0	14.71	213.43	2,105.9	-117.5	-77.5	140.8	0.00	0.00	0.00
2,160.0	14.71	213.43	2,144.6	-125.9	-83.1	150.9	0.00	0.00	0.00
2,200.0	14.71	213.43	2,183.3	-134.4	-88.7	161.1	0.00	0.00	0.00
2,240.0	14.71	213.43	2,222.0	-142.9	-94.3	171.2	0.00	0.00	0.00
2,280.0	14.71	213.43	2,260.7	-151.4	-99.9	181.4	0.00	0.00	0.00
2,320.0	14.71	213.43	2,299.3	-159.9	-105.5	191.6	0.00	0.00	0.00
2,360.0	14.71	213.43	2,338.0	-168.3	-111.1	201.7	0.00	0.00	0.00
2,400.0	14.71	213.43	2,376.7	-176.8	-116.7	211.9	0.00	0.00	0.00
2,440.0	14.71	213.43	2,415.4	-185.3	-122.3	222.0	0.00	0.00	0.00
2,480.0	14.71	213.43	2,454.1	-193.8	-127.9	232.2	0.00	0.00	0.00
2,520.0	14.71	213.43	2,492.8	-202.3	-133.5	242.3	0.00	0.00	0.00
2,560.0	14.71	213.43	2,531.5	-210.7	-139.1	252.5	0.00	0.00	0.00
2,600.0	14.71	213.43	2,570.2	-219.2	-144.7	262.7	0.00	0.00	0.00
2,640.0	14.71	213.43	2,608.8	-227.7	-150.3	272.8	0.00	0.00	0.00
2,680.0	14.71	213.43	2,647.5	-236.2	-155.9	283.0	0.00	0.00	0.00
2,720.0	14.71	213.43	2,686.2	-244.6	-161.5	293.1	0.00	0.00	0.00
2,760.0	14.71	213.43	2,724.9	-253.1	-167.1	303.3	0.00	0.00	0.00
2,800.0	14.71	213.43	2,763.6	-261.6	-172.7	313.5	0.00	0.00	0.00
2,840.0	14.71	213.43	2,802.3	-270.1	-178.3	323.6	0.00	0.00	0.00
2,880.0	14.71	213.43	2,841.0	-278.6	-183.9	333.8	0.00	0.00	0.00
2,920.0	14.71	213.43	2,879.7	-287.0	-189.5	343.9	0.00	0.00	0.00
2,960.0	14.71	213.43	2,918.4	-295.5	-195.1	354.1	0.00	0.00	0.00
3,000.0	14.71	213.43	2,957.0	-304.0	-200.7	364.3	0.00	0.00	0.00
3,040.0	14.71	213.43	2,995.7	-312.5	-206.3	374.4	0.00	0.00	0.00
3,080.0	14.71	213.43	3,034.4	-321.0	-211.9	384.6	0.00	0.00	0.00
3,120.0	14.71	213.43	3,073.1	-329.4	-217.5	394.7	0.00	0.00	0.00
3,160.0	14.71	213.43	3,111.8	-337.9	-223.1	404.9	0.00	0.00	0.00
3,200.0	14.71	213.43	3,150.5	-346.4	-228.7	415.1	0.00	0.00	0.00
3,240.0	14.71	213.43	3,189.2	-354.9	-234.3	425.2	0.00	0.00	0.00
3,280.0	14.71	213.43	3,227.9	-363.3	-239.9	435.4	0.00	0.00	0.00
3,320.0	14.71	213.43	3,266.5	-371.8	-245.4	445.5	0.00	0.00	0.00
3,360.0	14.71	213.43	3,305.2	-380.3	-251.0	455.7	0.00	0.00	0.00
3,400.0	14.71	213.43	3,343.9	-388.8	-256.6	465.8	0.00	0.00	0.00
3,440.0	14.71	213.43	3,382.6	-397.3	-262.2	476.0	0.00	0.00	0.00
3,480.0	14.71	213.43	3,421.3	-405.7	-267.8	486.2	0.00	0.00	0.00
3,520.0	14.71	213.43	3,460.0	-414.2	-273.4	496.3	0.00	0.00	0.00
3,560.0	14.71	213.43	3,498.7	-422.7	-279.0	506.5	0.00	0.00	0.00
3,600.0	14.71	213.43	3,537.4	-431.2	-284.6	516.6	0.00	0.00	0.00
3,640.0	14.71	213.43	3,576.1	-439.6	-290.2	526.8	0.00	0.00	0.00
3,680.0	14.71	213.43	3,614.7	-448.1	-295.8	537.0	0.00	0.00	0.00
3,720.0	14.71	213.43	3,653.4	-456.6	-301.4	547.1	0.00	0.00	0.00
3,760.0	14.71	213.43	3,692.1	-465.1	-307.0	557.3	0.00	0.00	0.00
3,800.0	14.71	213.43	3,730.8	-473.6	-312.6	567.4	0.00	0.00	0.00
3,840.0	14.71	213.43	3,769.5	-482.0	-318.2	577.6	0.00	0.00	0.00
3,880.0	14.71	213.43	3,808.2	-490.5	-323.8	587.8	0.00	0.00	0.00
3,920.0	14.71	213.43	3,846.9	-499.0	-329.4	597.9	0.00	0.00	0.00
3,960.0	14.71	213.43	3,885.6	-507.5	-335.0	608.1	0.00	0.00	0.00
4,000.0	14.71	213.43	3,924.3	-516.0	-340.6	618.2	0.00	0.00	0.00
4,040.0	14.71	213.43	3,962.9	-524.4	-346.2	628.4	0.00	0.00	0.00
4,080.0	14.71	213.43	4,001.6	-532.9	-351.8	638.6	0.00	0.00	0.00
4,120.0	14.71	213.43	4,040.3	-541.4	-357.4	648.7	0.00	0.00	0.00
4,160.0	14.71	213.43	4,079.0	-549.9	-363.0	658.9	0.00	0.00	0.00
4,200.0	14.71	213.43	4,117.7	-558.3	-368.6	669.0	0.00	0.00	0.00
4,240.0	14.71	213.43	4,156.4	-566.8	-374.2	679.2	0.00	0.00	0.00

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 MD Reference: WELL @ 4624.0ft (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)
4,280.0	14.71	213.43	4,195.1	-575.3	-379.8	689.3	0.00	0.00	0.00
4,320.0	14.71	213.43	4,233.8	-583.8	-385.4	699.5	0.00	0.00	0.00
4,360.0	14.71	213.43	4,272.4	-592.2	-391.0	709.7	0.00	0.00	0.00
4,400.0	13.91	213.43	4,311.2	-600.5	-396.4	719.6	2.00	-2.00	0.00
4,440.0	13.11	213.43	4,350.1	-608.3	-401.6	728.9	2.00	-2.00	0.00
4,480.0	12.31	213.43	4,389.1	-615.7	-406.4	737.7	2.00	-2.00	0.00
4,520.0	11.51	213.43	4,428.3	-622.5	-411.0	746.0	2.00	-2.00	0.00
4,560.0	10.71	213.43	4,467.5	-629.0	-415.2	753.7	2.00	-2.00	0.00
4,600.0	9.91	213.43	4,506.9	-635.0	-419.2	760.8	2.00	-2.00	0.00
4,640.0	9.11	213.43	4,546.3	-640.5	-422.8	767.4	2.00	-2.00	0.00
4,680.0	8.31	213.43	4,585.8	-645.5	-426.1	773.5	2.00	-2.00	0.00
4,720.0	7.51	213.43	4,625.5	-650.1	-429.2	779.0	2.00	-2.00	0.00
4,760.0	6.71	213.43	4,665.2	-654.3	-431.9	784.0	2.00	-2.00	0.00
4,800.0	5.91	213.43	4,704.9	-657.9	-434.3	788.4	2.00	-2.00	0.00
4,840.0	5.11	213.43	4,744.7	-661.1	-436.4	792.2	2.00	-2.00	0.00
4,880.0	4.31	213.43	4,784.6	-663.9	-438.2	795.5	2.00	-2.00	0.00
4,920.0	3.51	213.43	4,824.5	-666.2	-439.7	798.2	2.00	-2.00	0.00
4,960.0	2.71	213.43	4,864.4	-668.0	-440.9	800.4	2.00	-2.00	0.00
5,000.0	1.91	213.43	4,904.4	-669.3	-441.8	802.0	2.00	-2.00	0.00
5,040.0	1.11	213.43	4,944.4	-670.2	-442.4	803.1	2.00	-2.00	0.00
5,080.0	0.31	213.43	4,984.4	-670.6	-442.7	803.5	2.00	-2.00	0.00
5,095.6	0.00	0.00	5,000.0	-670.6	-442.7	803.6	2.00	-2.00	939.01
TARGET BHL 1310'FSL, 150'FWL									
5,120.0	0.00	0.00	5,024.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,160.0	0.00	0.00	5,064.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,200.0	0.00	0.00	5,104.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,240.0	0.00	0.00	5,144.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,280.0	0.00	0.00	5,184.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,320.0	0.00	0.00	5,224.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,360.0	0.00	0.00	5,264.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,400.0	0.00	0.00	5,304.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,440.0	0.00	0.00	5,344.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,480.0	0.00	0.00	5,384.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,520.0	0.00	0.00	5,424.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,560.0	0.00	0.00	5,464.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,600.0	0.00	0.00	5,504.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,640.0	0.00	0.00	5,544.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,680.0	0.00	0.00	5,584.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,720.0	0.00	0.00	5,624.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,760.0	0.00	0.00	5,664.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,800.0	0.00	0.00	5,704.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,840.0	0.00	0.00	5,744.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,880.0	0.00	0.00	5,784.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,920.0	0.00	0.00	5,824.4	-670.6	-442.7	803.6	0.00	0.00	0.00
5,960.0	0.00	0.00	5,864.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,000.0	0.00	0.00	5,904.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,040.0	0.00	0.00	5,944.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,080.0	0.00	0.00	5,984.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,120.0	0.00	0.00	6,024.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,160.0	0.00	0.00	6,064.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,200.0	0.00	0.00	6,104.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,240.0	0.00	0.00	6,144.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,280.0	0.00	0.00	6,184.4	-670.6	-442.7	803.6	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.1-T4N-R64W
 Site: Marley C01-32D Pad Sec.1-T4N-R64W
 Well: Marley C01-33D
 Wellbore: Wellbore #1
 Design: Noble Marley C01-33D Plan #1 11-18-09

Local Co-ordinate Reference: Well Marley C01-33D
 TVD Reference: WELL @ 4624.0ft (Original Well Elev)
 MD Reference: WELL @ 4624.0ft (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)
6,320.0	0.00	0.00	6,224.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,360.0	0.00	0.00	6,264.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,304.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,440.0	0.00	0.00	6,344.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,480.0	0.00	0.00	6,384.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,493.6	0.00	0.00	6,398.0	-670.6	-442.7	803.6	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 1310'FSL, 150'FWL									
6,520.0	0.00	0.00	6,424.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,560.0	0.00	0.00	6,464.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,504.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,640.0	0.00	0.00	6,544.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,680.0	0.00	0.00	6,584.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,720.0	0.00	0.00	6,624.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,760.0	0.00	0.00	6,664.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,789.6	0.00	0.00	6,694.0	-670.6	-442.7	803.6	0.00	0.00	0.00
CODELL									
6,800.0	0.00	0.00	6,704.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,840.0	0.00	0.00	6,744.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,880.0	0.00	0.00	6,784.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,920.0	0.00	0.00	6,824.4	-670.6	-442.7	803.6	0.00	0.00	0.00
6,939.6	0.00	0.00	6,844.0	-670.6	-442.7	803.6	0.00	0.00	0.00
HARDLINE 150'W OF BHL									

Targets
Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET BHL 1310'F - plan hits target center - Point	0.00	0.00	5,000.0	-670.6	-442.7	1,367,437.77	3,276,617.08	40° 20' 15.969 N	104° 30' 27.677 W
HARDLINE 150'W OF - plan misses target center by 180.2ft at 6939.6ft MD (6844.0 TVD, -670.6 N, -442.7 E) - Polygon	0.00	0.00	6,844.0	-770.6	-592.7	1,367,336.14	3,276,468.22	40° 20' 14.981 N	104° 30' 29.614 W
Point 1			6,844.0	0.0	0.0	1,367,336.14	3,276,468.22		
Point 2			6,844.0	200.0	0.0	1,367,536.12	3,276,465.98		
TARGET CIRCLE 13' - plan hits target center - Circle (radius 75.0)	0.00	0.00	6,398.0	-670.6	-442.7	1,367,437.81	3,276,617.09	40° 20' 15.969 N	104° 30' 27.677 W

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,493.6	6,398.0	NIOBRARA		0.00	
6,789.6	6,694.0	CODELL		0.00	