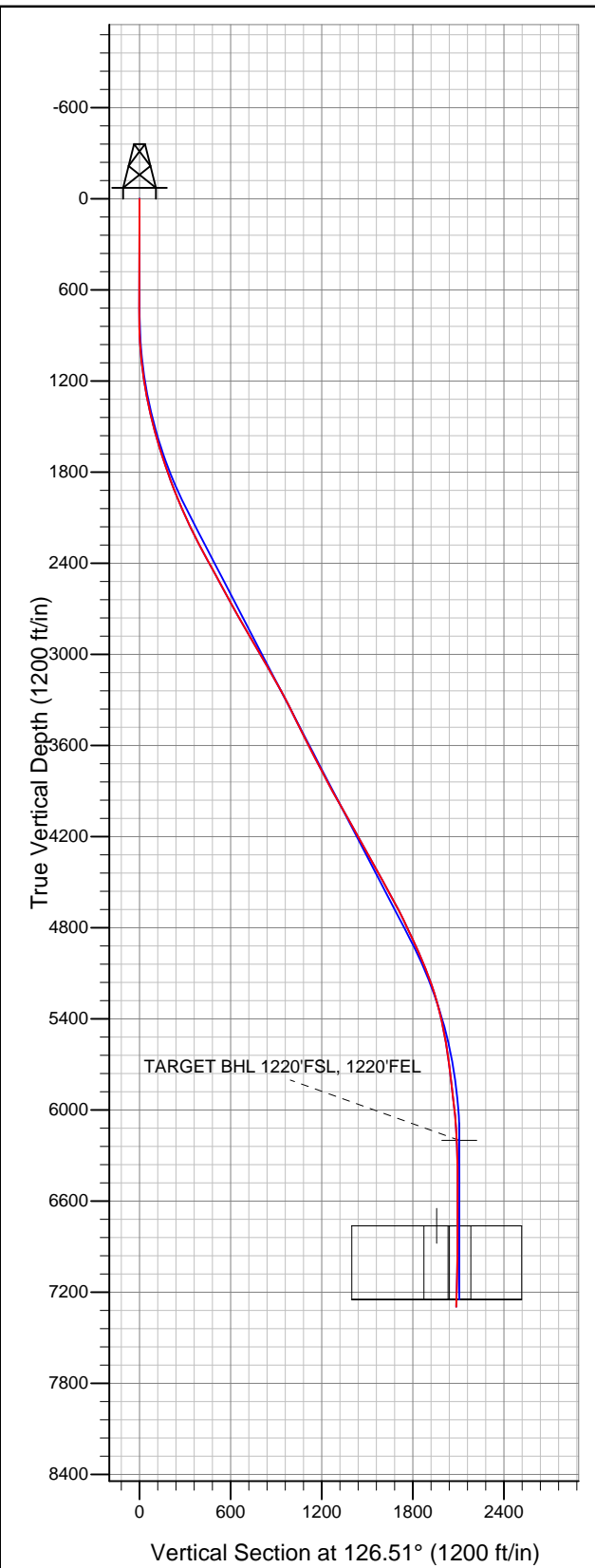


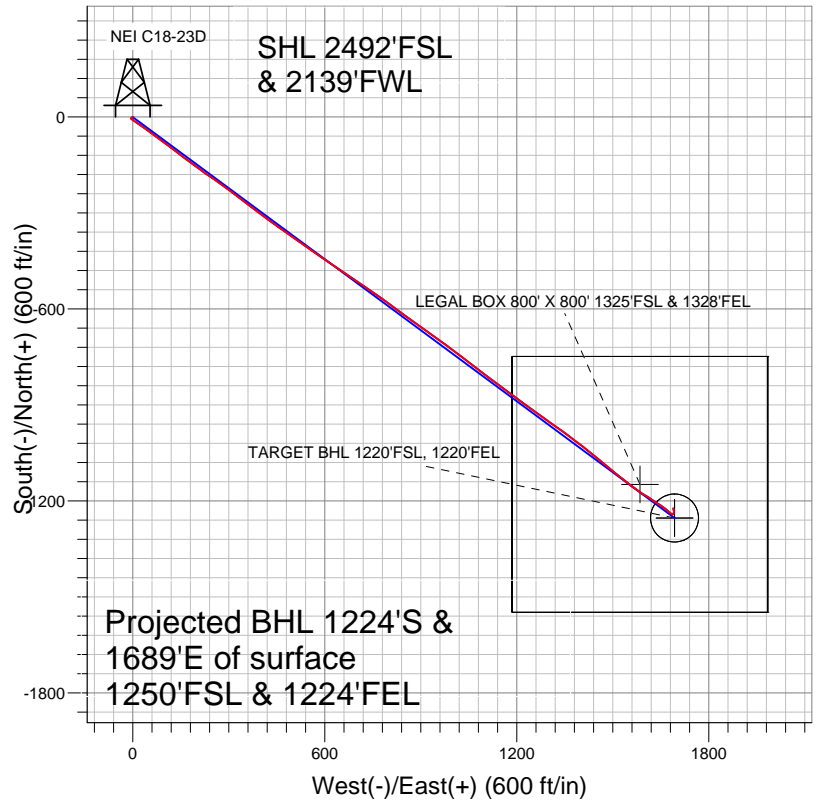


Well Name: NEI C18-23D

Surface Location: NEI C18-32D Pad Sec.18-T4N-R64W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4835.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1357748.30 3252534.06 40.311880 -104.594430
Original Well Elev WELL @ 4848.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- NEI C18-23D, Wellbore #1, Noble NEI C18-23D Plan #1 (11-25-11) R V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7760'MD & 7296'TVD @ 2086'VS
2.2 deg Inc 340.0 deg AZ

Project: SEC.18-T4N-R64W
Site: NEI C18-32D Pad Sec.18-T4N-R64W
Well: NEI C18-23D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.18-T4N-R64W

NEI C18-32D Pad Sec.18-T4N-R64W

NEI C18-23D

Wellbore #1

Survey: Survey #1

Standard Survey Report

02 December, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well NEI C18-23D
Project:	SEC.18-T4N-R64W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site:	NEI C18-32D Pad Sec.18-T4N-R64W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Well:	NEI C18-23D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.18-T4N-R64W, 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	NEI C18-32D Pad Sec.18-T4N-R64W		
Site Position:		Northing:	1,357,747.19 ft
From:	Lat/Long	Easting:	3,252,422.52 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.311880
		Longitude:	-104.594830
		Grid Convergence:	0.58 °

Well	NEI C18-23D		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.311880
		Longitude:	-104.594430
		Ground Level:	4,835.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/25/2011	8.71	66.99	53,056

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	6,200.0	0.0	0.0	126.51	

Survey Program	Date	12/2/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
726.0	7,760.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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	
726.0	1.00	237.00	726.0	-3.5	-5.3	-2.2	0.14	0.14	0.00	
854.0	1.40	140.20	853.9	-5.3	-5.2	-1.1	1.42	0.31	-75.63	
983.0	4.40	120.20	982.8	-9.0	0.0	5.4	2.42	2.33	-15.50	
1,111.0	6.60	124.90	1,110.2	-15.6	10.3	17.6	1.75	1.72	3.67	
1,240.0	9.60	129.10	1,237.9	-26.7	24.7	35.8	2.37	2.33	3.26	
1,368.0	12.00	124.00	1,363.6	-40.8	44.1	59.7	2.02	1.88	-3.98	
1,496.0	14.60	124.70	1,488.2	-57.5	68.4	89.1	2.04	2.03	0.55	
1,625.0	16.70	127.90	1,612.4	-78.1	96.4	123.9	1.76	1.63	2.48	
1,753.0	18.40	128.40	1,734.4	-102.0	126.7	162.5	1.33	1.33	0.39	
1,882.0	20.50	125.80	1,856.0	-127.8	161.0	205.4	1.76	1.63	-2.02	
2,010.0	22.20	126.50	1,975.2	-155.3	198.6	252.0	1.34	1.33	0.55	
2,138.0	24.20	124.90	2,092.9	-184.7	239.6	302.5	1.64	1.56	-1.25	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well NEI C18-23D
Project:	SEC.18-T4N-R64W	TVD Reference:	WELL @ 4848.0ft (Original Well Elev)
Site:	NEI C18-32D Pad Sec.18-T4N-R64W	MD Reference:	WELL @ 4848.0ft (Original Well Elev)
Well:	NEI C18-23D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
2,267.0	26.60	125.40	2,209.4	-216.6	284.8	357.8	1.87	1.86	0.39
2,395.0	28.50	127.50	2,322.9	-251.8	332.4	417.0	1.67	1.48	1.64
2,524.0	28.80	127.40	2,436.1	-289.4	381.5	478.8	0.24	0.23	-0.08
2,652.0	28.70	126.10	2,548.3	-326.2	430.8	540.4	0.49	-0.08	-1.02
2,780.0	28.40	124.90	2,660.8	-361.7	480.6	601.5	0.51	-0.23	-0.94
2,909.0	29.40	125.80	2,773.7	-397.8	531.5	663.9	0.85	0.78	0.70
3,037.0	30.10	124.20	2,884.8	-434.2	583.5	727.3	0.83	0.55	-1.25
3,166.0	30.80	123.80	2,996.0	-470.8	637.7	792.7	0.56	0.54	-0.31
3,294.0	29.50	125.10	3,106.7	-507.1	690.7	856.9	1.14	-1.02	1.02
3,422.0	29.20	123.70	3,218.3	-542.6	742.5	919.6	0.59	-0.23	-1.09
3,551.0	26.70	126.30	3,332.2	-577.2	792.0	980.0	2.16	-1.94	2.02
3,679.0	26.10	126.80	3,446.9	-611.1	837.7	1,036.9	0.50	-0.47	0.39
3,808.0	26.80	125.30	3,562.4	-644.9	884.2	1,094.4	0.75	0.54	-1.16
3,936.0	27.60	125.30	3,676.2	-678.7	931.9	1,152.9	0.63	0.63	0.00
4,064.0	27.10	126.50	3,789.9	-713.2	979.6	1,211.7	0.58	-0.39	0.94
4,193.0	28.90	127.40	3,903.8	-749.6	1,028.0	1,272.2	1.43	1.40	0.70
4,321.0	29.90	127.90	4,015.3	-788.0	1,077.7	1,335.0	0.80	0.78	0.39
4,450.0	29.60	126.10	4,127.3	-826.5	1,128.8	1,399.0	0.73	-0.23	-1.40
4,578.0	28.80	126.50	4,239.1	-863.5	1,179.2	1,461.5	0.64	-0.63	0.31
4,706.0	29.00	126.80	4,351.1	-900.4	1,228.8	1,523.4	0.19	0.16	0.23
4,835.0	28.70	125.30	4,464.1	-937.0	1,279.1	1,585.6	0.61	-0.23	-1.16
4,963.0	29.40	125.30	4,576.0	-973.0	1,329.8	1,647.7	0.55	0.55	0.00
5,092.0	26.90	127.40	4,689.7	-1,009.0	1,378.9	1,708.6	2.08	-1.94	1.63
5,220.0	25.80	128.20	4,804.4	-1,043.8	1,423.8	1,765.4	0.90	-0.86	0.63
5,348.0	24.20	129.80	4,920.5	-1,077.8	1,465.8	1,819.4	1.36	-1.25	1.25
5,477.0	22.50	129.10	5,038.9	-1,110.3	1,505.3	1,870.5	1.34	-1.32	-0.54
5,605.0	19.90	128.10	5,158.2	-1,139.2	1,541.4	1,916.7	2.05	-2.03	-0.78
5,734.0	15.70	127.20	5,281.0	-1,163.3	1,572.6	1,956.1	3.26	-3.26	-0.70
5,862.0	12.80	120.30	5,405.1	-1,180.9	1,598.7	1,987.6	2.62	-2.27	-5.39
5,990.0	10.10	125.10	5,530.5	-1,194.6	1,620.1	2,012.9	2.24	-2.11	3.75
6,119.0	7.30	120.90	5,658.0	-1,205.3	1,636.4	2,032.3	2.22	-2.17	-3.26
6,247.0	6.80	124.00	5,785.0	-1,213.7	1,649.7	2,048.0	0.49	-0.39	2.42
6,376.0	6.90	130.40	5,913.1	-1,223.0	1,661.9	2,063.4	0.60	0.08	4.96
6,504.0	6.20	128.60	6,040.3	-1,232.3	1,673.1	2,078.0	0.57	-0.55	-1.41
6,632.0	2.50	130.00	6,167.9	-1,238.4	1,680.7	2,087.6	2.89	-2.89	1.09
6,664.7	2.14	128.78	6,200.5	-1,239.2	1,681.7	2,089.0	1.11	-1.10	-3.73
TARGET BHL 1220'FSL, 1220'FEL									
6,761.0	1.10	120.60	6,296.8	-1,240.8	1,683.9	2,091.7	1.11	-1.08	-8.49
6,889.0	0.90	113.50	6,424.8	-1,241.9	1,685.9	2,093.9	0.18	-0.16	-5.55
7,018.0	0.60	51.30	6,553.8	-1,241.8	1,687.3	2,095.1	0.63	-0.23	-48.22
7,146.0	1.10	42.50	6,681.8	-1,240.5	1,688.7	2,095.4	0.40	0.39	-6.88
7,227.1	1.10	36.23	6,762.8	-1,239.3	1,689.7	2,095.4	0.15	0.00	-7.74
TARGET CIRCLE 1220'FSL & 1220'FEL									
7,227.4	1.10	36.20	6,763.2	-1,239.3	1,689.7	2,095.4	0.15	0.00	-7.75
LEGAL BOX 800' X 800' 1325'FSL & 1328'FEL									
7,274.0	1.10	32.60	6,809.8	-1,238.6	1,690.2	2,095.4	0.15	0.01	-7.73
7,403.0	1.80	5.90	6,938.7	-1,235.5	1,691.1	2,094.3	0.74	0.54	-20.70
7,531.0	2.00	353.10	7,066.7	-1,231.3	1,691.0	2,091.7	0.37	0.16	-10.00
7,660.0	1.90	345.20	7,195.6	-1,227.0	1,690.2	2,088.5	0.22	-0.08	-6.12
7,712.0	2.10	342.30	7,247.5	-1,225.2	1,689.7	2,087.1	0.43	0.38	-5.58
7,760.0	2.20	340.00	7,295.5	-1,223.5	1,689.1	2,085.6	0.28	0.21	-4.79

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.18-T4N-R64W
Site: NEI C18-32D Pad Sec.18-T4N-R64W
Well: NEI C18-23D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well NEI C18-23D
TVD Reference: WELL @ 4848.0ft (Original Well Elev)
MD Reference: WELL @ 4848.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Landmark

Checked By: _____ Approved By: _____ Date: _____