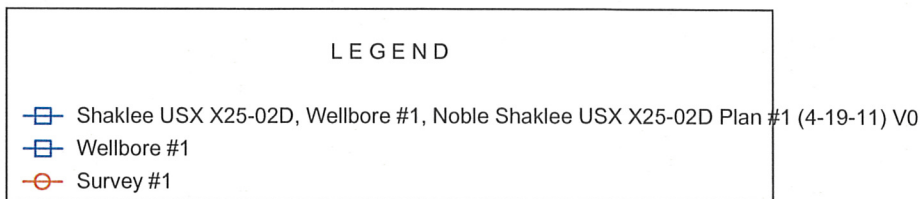
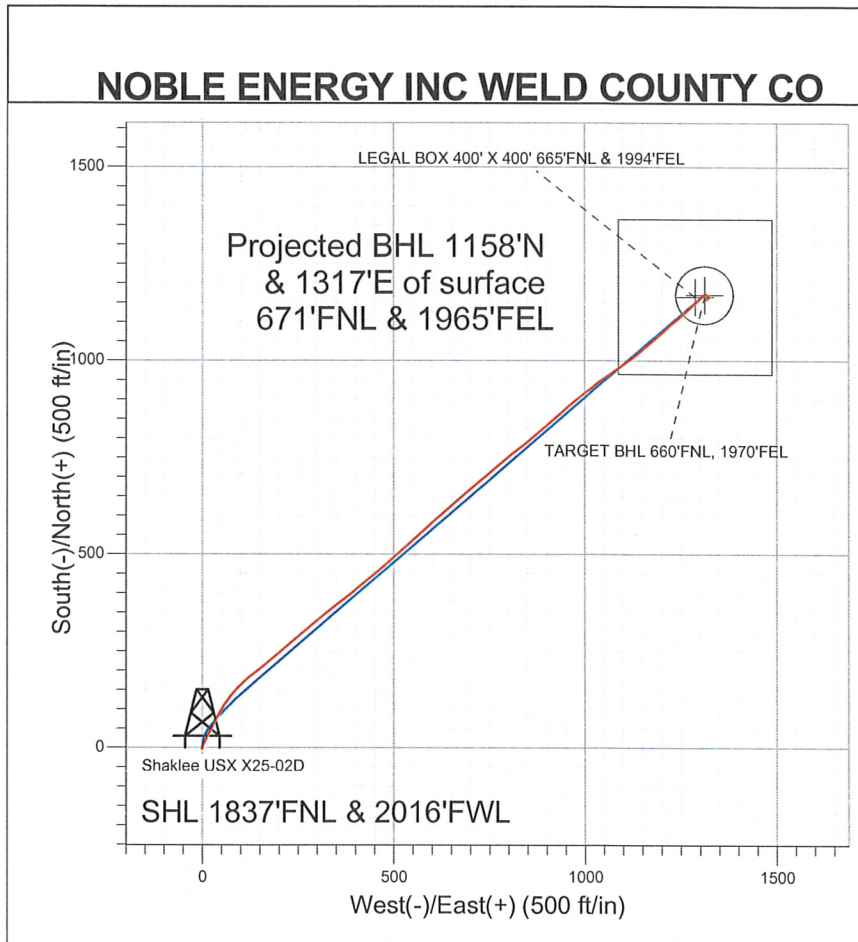
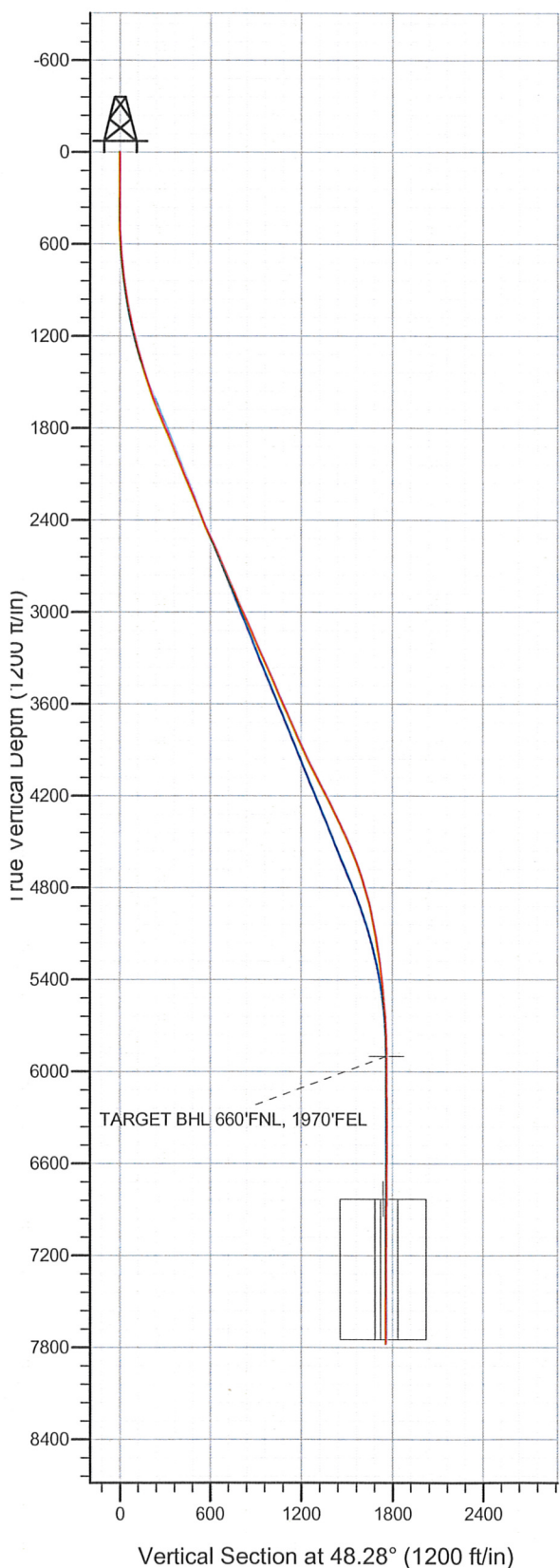


Well Name: **Shaklee USX X25-02D**  
Surface Location: Shaklee USX X25-02D Pad Sec.25-T2N-R65W  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
Ground Elevation: 4904.0  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0 1284773.05 3247665.57 40.111700 -104.614500  
Original Well EleWELL @ 4917.0ft (Original Well Elev)



## Final Survey Plot

Projected Final Survey -  
8110'MD & 7774'TVD @ 1754'VS  
0.7 deg Inc 219.7 deg AZ

Project: SEC.25-T2N-R65W  
Site: Shaklee USX X25-02D Pad Sec.25-T2N-R65W  
Well: Shaklee USX X25-02D  
Plan: Wellbore #1



**Directional**

## **NOBLE ENERGY INC WELD COUNTY CO**

**SEC.25-T2N-R65W**

**Shaklee USX X25-02D Pad Sec.25-T2N-R65W**

**Shaklee USX X25-02D**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**27 October, 2011**



Company: NOBLE ENERGY INC WELD COUNTY CO  
Project: SEC.25-T2N-R65W  
Site: Shaklee USX X25-02D Pad Sec.25-T2N-R65W  
Well: Shaklee USX X25-02D  
Wellbore: Wellbore #1  
Design: Wellbore #1

Local Co-ordinate Reference: Well Shaklee USX X25-02D  
TVD Reference: WELL @ 4917.0ft (Original Well Elev)  
MD Reference: WELL @ 4917.0ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature  
Database: Landmark

Project SEC.25-T2N-R65W, Weld County, Colorado,

Map System: US State Plane 1983  
Geo Datum: North American Datum 1983  
Map Zone: Colorado Northern Zone  
System Datum: Mean Sea Level  
Using Well Reference Point  
Using geodetic scale factor

Site Shaklee USX X25-02D Pad Sec.25-T2N-R65W

Site Position: Northing: 1,284,773.06 ft Latitude: 40.111700  
From: Lat/Long Easting: 3,247,665.57 ft Longitude: -104.614500  
Position Uncertainty: 0.0 ft Slot Radius: " Grid Convergence: 0.57 °

Well Shaklee USX X25-02D

Well Position +N/-S 0.0 ft Northing: 1,284,773.05 ft Latitude: 40.111700  
+E/-W 0.0 ft Easting: 3,247,665.57 ft Longitude: -104.614500  
Position Uncertainty 0.0 ft Wellhead Elevation: ft Ground Level: 4,904.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/23/2011	8.72	66.83	52,966

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 (°)
	5,900.0	0.0	0.0	48.28

Survey Program Date 10/27/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
105.0	8,110.0	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
105.0	0.40	159.80	105.0	-0.3	0.1	-0.1	0.38	0.38	0.00
229.0	0.60	141.30	229.0	-1.3	0.7	-0.3	0.21	0.16	-14.92
352.0	0.70	170.10	352.0	-2.5	1.2	-0.8	0.27	0.08	23.41
444.0	1.10	18.60	444.0	-2.2	1.6	-0.3	1.90	0.43	-164.67
536.0	2.80	5.30	535.9	0.9	2.1	2.1	1.90	1.85	-14.46
628.0	4.10	20.40	627.8	6.2	3.4	6.7	1.71	1.41	16.41
721.0	6.30	24.10	720.4	14.0	6.7	14.3	2.39	2.37	3.98
823.0	8.00	29.20	821.6	25.3	12.4	26.1	1.78	1.67	5.00
905.0	9.90	26.40	902.6	36.6	18.3	38.0	2.38	2.32	-3.41
1,028.0	11.90	26.40	1,023.3	57.4	28.7	59.6	1.63	1.63	0.00
1,110.0	12.90	28.30	1,103.4	73.0	36.8	76.0	1.32	1.22	2.32
1,191.0	14.20	29.30	1,182.2	89.6	45.9	93.9	1.63	1.60	1.23



Company: NOBLE ENERGY INC WELD COUNTY CO  
Project: SEC.25-T2N-R65W  
Site: Shaklee USX X25-02D Pad Sec.25-T2N-R65W  
Well: Shaklee USX X25-02D  
Wellbore: Wellbore #1  
Design: Wellbore #1

Local Co-ordinate Reference: Well Shaklee USX X25-02D  
TVD Reference: WELL @ 4917.0ft (Original Well Elev)  
MD Reference: WELL @ 4917.0ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature  
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)
1,273.0	15.50	32.90	1,261.4	107.6	56.8	114.0	1.94	1.59	4.39
1,355.0	16.50	35.50	1,340.3	126.3	69.5	135.9	1.50	1.22	3.17
1,437.0	17.60	41.10	1,418.7	145.1	84.4	159.6	2.41	1.34	6.83
1,518.0	18.30	46.60	1,495.7	163.1	101.7	184.5	2.26	0.86	6.79
1,600.0	19.90	49.90	1,573.2	180.9	121.8	211.3	2.35	1.95	4.02
1,682.0	21.40	52.40	1,649.9	199.0	144.3	240.2	2.12	1.83	3.05
1,763.0	22.60	50.60	1,725.0	217.9	168.0	270.4	1.70	1.48	-2.22
1,845.0	23.30	50.40	1,800.6	238.3	192.7	302.4	0.86	0.85	-0.24
1,927.0	23.00	49.60	1,875.9	259.0	217.4	334.6	0.53	-0.37	-0.98
2,009.0	22.40	49.70	1,951.6	279.5	241.5	366.3	0.73	-0.73	0.12
2,090.0	23.10	50.10	2,026.3	299.7	265.5	397.6	0.89	0.86	0.49
2,172.0	22.90	51.00	2,101.8	320.0	290.2	429.6	0.49	-0.24	1.10
2,254.0	22.20	51.70	2,177.5	339.7	314.8	461.0	0.91	-0.85	0.85
2,335.0	22.30	51.10	2,252.5	358.8	338.7	491.6	0.31	0.12	-0.74
2,417.0	22.10	52.20	2,328.4	378.0	363.0	522.5	0.56	-0.24	1.34
2,499.0	23.00	51.50	2,404.1	397.4	387.8	553.9	1.15	1.10	-0.85
2,581.0	25.00	50.80	2,479.0	418.4	413.7	587.2	2.46	2.44	-0.85
2,662.0	24.30	50.10	2,552.7	439.9	439.8	621.0	0.94	-0.86	-0.86
2,744.0	24.30	49.90	2,627.4	461.6	465.6	654.7	0.10	0.00	-0.24
2,826.0	23.40	49.20	2,702.4	483.1	490.9	687.9	1.15	-1.10	-0.85
2,908.0	23.10	48.20	2,777.7	504.4	515.2	720.2	0.60	-0.37	-1.22
2,989.0	22.50	47.50	2,852.4	525.5	538.4	751.6	0.81	-0.74	-0.86
3,071.0	23.70	48.00	2,927.8	547.1	562.3	783.8	1.48	1.46	0.61
3,153.0	23.70	48.20	3,002.9	569.1	586.8	816.7	0.10	0.00	0.24
3,234.0	24.20	48.30	3,076.9	591.0	611.3	849.6	0.62	0.62	0.12
3,316.0	24.30	49.40	3,151.7	613.2	636.7	883.3	0.56	0.12	1.34
3,398.0	23.90	49.40	3,226.5	635.0	662.1	916.8	0.49	-0.49	0.00
3,480.0	23.80	49.70	3,301.5	656.5	687.3	949.9	0.19	-0.12	0.37
3,561.0	23.90	49.40	3,375.6	677.7	712.3	982.7	0.19	0.12	-0.37
3,643.0	23.60	51.00	3,450.7	698.9	737.6	1,015.7	0.87	-0.37	1.95
3,725.0	23.30	49.80	3,525.9	719.7	762.8	1,048.3	0.69	-0.37	-1.46
3,806.0	24.50	50.40	3,600.0	740.7	787.9	1,081.1	1.51	1.48	0.74
3,888.0	24.40	52.50	3,674.6	761.9	814.5	1,115.0	1.07	-0.12	2.56
3,970.0	24.20	52.70	3,749.4	782.4	841.3	1,148.6	0.26	-0.24	0.24
4,052.0	23.50	49.70	3,824.4	803.1	867.1	1,181.7	1.71	-0.85	-3.66
4,133.0	24.80	48.60	3,898.3	824.8	892.2	1,214.8	1.70	1.60	-1.36
4,215.0	25.40	48.90	3,972.5	847.8	918.3	1,249.6	0.75	0.73	0.37
4,297.0	27.70	49.40	4,045.9	871.7	946.1	1,286.3	2.82	2.80	0.61
4,378.0	27.40	51.00	4,117.7	895.7	974.9	1,323.7	0.99	-0.37	1.98
4,460.0	27.10	52.20	4,190.6	919.0	1,004.3	1,361.2	0.76	-0.37	1.46
4,542.0	27.30	54.50	4,263.5	941.4	1,034.3	1,398.5	1.31	0.24	2.80
4,624.0	26.60	54.50	4,336.6	963.0	1,064.6	1,435.5	0.85	-0.85	0.00
4,705.0	24.30	53.60	4,409.7	983.4	1,092.8	1,470.1	2.88	-2.84	-1.11
4,787.0	23.10	53.30	4,484.8	1,003.0	1,119.3	1,502.9	1.47	-1.46	-0.37
4,869.0	21.90	49.90	4,560.6	1,022.5	1,143.9	1,534.2	2.16	-1.46	-4.15
4,951.0	21.10	49.90	4,636.9	1,041.8	1,166.8	1,564.3	0.98	-0.98	0.00
5,032.0	19.00	49.40	4,713.0	1,059.8	1,188.0	1,592.0	2.60	-2.59	-0.62
5,114.0	16.70	48.70	4,791.0	1,076.3	1,207.0	1,617.2	2.82	-2.80	-0.85
5,196.0	14.60	48.70	4,870.0	1,090.9	1,223.6	1,639.3	2.56	-2.56	0.00
5,277.0	12.60	49.60	4,948.7	1,103.3	1,238.0	1,658.3	2.48	-2.47	1.11
5,359.0	11.00	48.70	5,029.0	1,114.3	1,250.7	1,675.1	1.96	-1.95	-1.10
5,441.0	9.70	48.00	5,109.6	1,124.1	1,261.7	1,689.8	1.59	-1.59	-0.85
5,523.0	9.00	47.80	5,190.5	1,133.0	1,271.6	1,703.1	0.85	-0.85	-0.24
5,604.0	7.70	46.40	5,270.7	1,141.0	1,280.2	1,714.9	1.62	-1.60	-1.73

Company: NOBLE ENERGY INC WELD COUNTY CO  
Project: SEC.25-T2N-R65W  
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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)
5,686.0	6.80	45.90	5,352.0	1,148.2	1,287.7	1,725.2	1.10	-1.10	-0.61
5,768.0	6.30	46.20	5,433.5	1,154.7	1,294.4	1,734.6	0.61	-0.61	0.37
5,849.0	5.20	45.30	5,514.1	1,160.3	1,300.2	1,742.7	1.36	-1.36	-1.11
5,931.0	4.50	44.80	5,595.8	1,165.2	1,305.1	1,749.6	0.86	-0.85	-0.61
6,013.0	3.30	45.20	5,677.6	1,169.2	1,309.1	1,755.2	1.46	-1.46	0.49
6,095.0	2.10	63.30	5,759.5	1,171.5	1,312.1	1,759.0	1.78	-1.46	22.07
6,176.0	1.40	106.90	5,840.5	1,171.9	1,314.4	1,760.9	1.79	-0.86	53.83
6,235.5	1.28	131.90	5,900.0	1,171.2	1,315.6	1,761.4	0.99	-0.21	42.00
TARGET BHL 660'FNL, 1970'FEL									
6,258.0	1.30	141.80	5,922.4	1,170.9	1,315.9	1,761.4	0.99	0.10	44.03
6,340.0	0.60	112.50	6,004.4	1,170.0	1,316.9	1,761.5	1.01	-0.85	-35.73
6,503.0	0.90	94.70	6,167.4	1,169.5	1,318.9	1,762.8	0.23	0.18	-10.92
6,667.0	1.10	97.40	6,331.4	1,169.2	1,321.8	1,764.7	0.13	0.12	1.65
6,830.0	1.30	146.40	6,494.4	1,167.5	1,324.4	1,765.5	0.62	0.12	30.06
6,994.0	0.80	188.40	6,658.3	1,164.8	1,325.2	1,764.3	0.54	-0.30	25.61
7,157.0	0.90	234.80	6,821.3	1,163.0	1,324.0	1,762.2	0.41	0.06	28.47
7,167.8	0.88	235.51	6,832.1	1,162.9	1,323.9	1,762.0	0.22	-0.20	6.58
TARGET CIRCLE 660'FNL, 1970'FEL									
7,168.1	0.88	235.53	6,832.4	1,162.9	1,323.9	1,762.0	0.22	-0.20	6.74
LEGAL BOX 400' X 400' 665'FNL & 1994'FEL									
7,320.0	0.60	250.70	6,984.3	1,161.9	1,322.2	1,760.1	0.22	-0.18	9.99
7,484.0	0.60	254.00	7,148.3	1,161.4	1,320.5	1,758.6	0.02	0.00	2.01
7,647.0	0.30	210.90	7,311.3	1,160.8	1,319.5	1,757.4	0.27	-0.18	-26.44
7,811.0	0.40	236.40	7,475.3	1,160.1	1,318.8	1,756.4	0.11	0.06	15.55
7,969.0	0.50	227.10	7,633.3	1,159.4	1,317.8	1,755.2	0.08	0.06	-5.89
8,060.0	0.70	219.70	7,724.3	1,158.7	1,317.2	1,754.2	0.24	0.22	-8.13
8,110.0	0.70	219.70	7,774.3	1,158.2	1,316.8	1,753.6	0.00	0.00	0.00

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_