

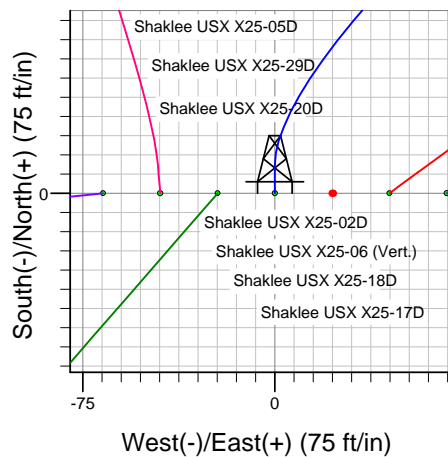
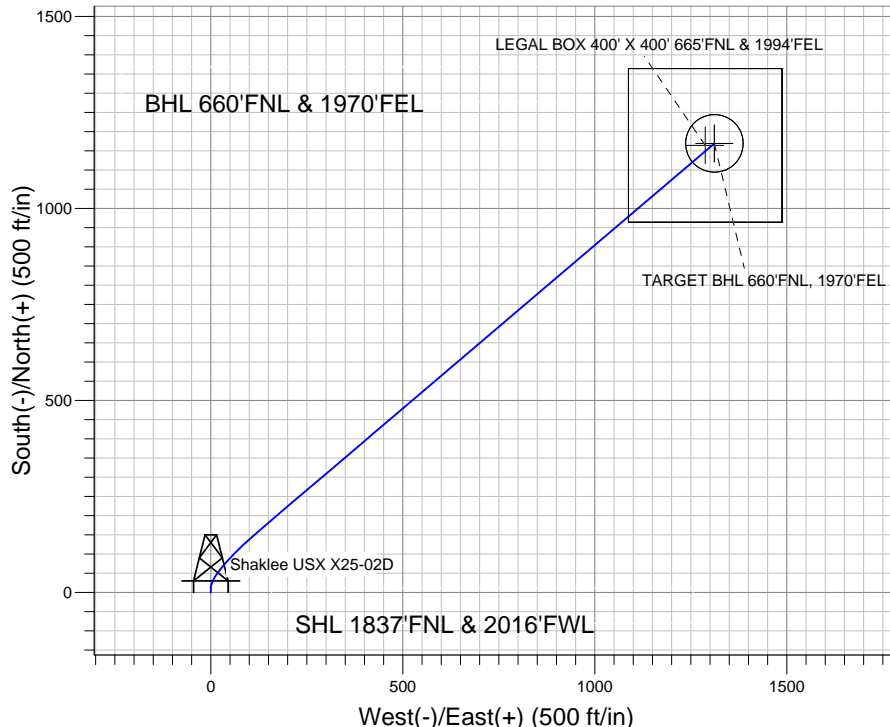
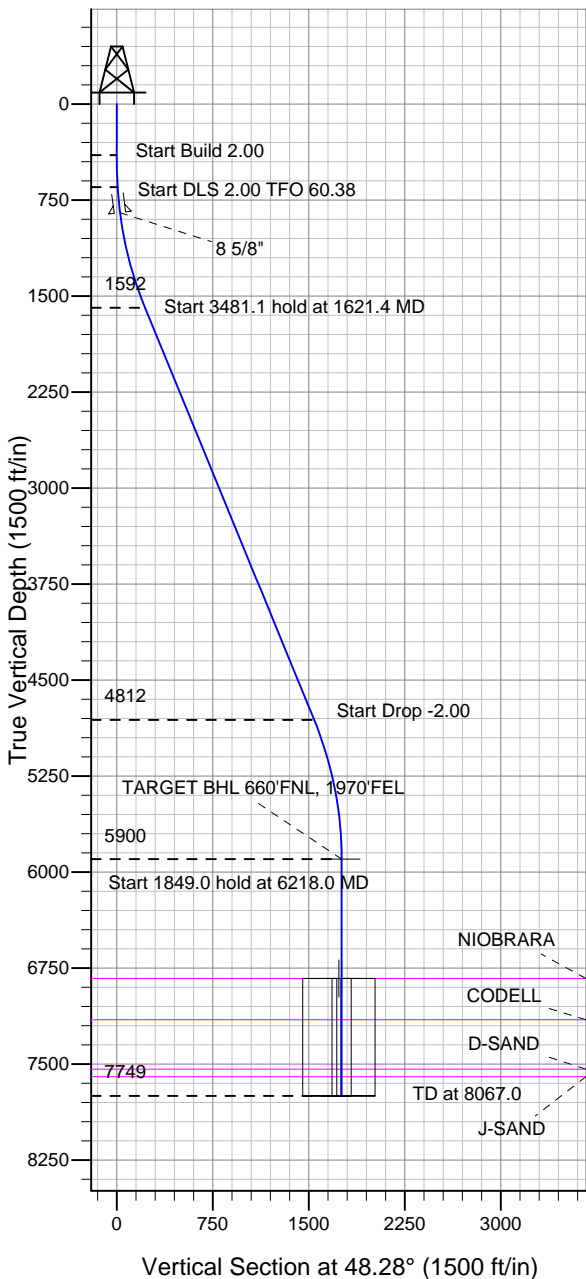
ENSIGN

Directional

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 Elev WELL @ 4917.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Shaklee USX X25-02D Pad Sec.25-T2N-R65W
 Shaklee USX X25-02D
 Noble Shaklee USX X25-02D Plan #1 (4-19-11)
 11:02, April 26 2011



Azimuths to True North
 Magnetic North: 8.78°

Magnetic Field
 Strength: 53009.8snT
 Dip Angle: 66.85°
 Date: 4/26/2011
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 660'FNL, 1970'FEL	5900.0	1169.4	1311.8	40.114910	-104.609810	Point
LEGAL BOX 400' X 400' 665'FNL & 1994'FEL	6832.0	1164.4	1287.8	40.114896	-104.609896	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 660'FNL, 1970'FEL	6832.0	1169.4	1311.8	40.114910	-104.609810	Circle (Radius: 75.0)

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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	650.0	5.00	0.00	649.7	10.9	0.0	2.00	0.00	7.3	
4	1621.4	22.31	49.62	1591.9	174.3	141.8	2.00	60.38	221.8	
5	5102.5	22.31	49.62	4812.5	1030.5	1148.4	0.00	0.00	1543.0	
6	6218.0	0.00	0.00	5900.0	1169.4	1311.8	2.00	180.00	1757.4	TARGET BHL 660'FNL, 1970'FEL
7	8067.0	0.00	0.00	7749.0	1169.4	1311.8	0.00	0.00	1757.4	



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

Plan: Noble Shaklee USX X25-02D Plan #1 (4-19-11)

Standard Planning Report

26 April, 2011



Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-02D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-02D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-02D Plan #1 (4-19-11)		

Project	SEC.25-T2N-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						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	4/26/2011	8.78	66.85	53,010

Design	Noble Shaklee USX X25-02D Plan #1 (4-19-11)			
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	48.28

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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
650.0	5.00	0.00	649.7	10.9	0.0	2.00	2.00	0.00	0.00	
1,621.4	22.31	49.62	1,591.9	174.3	141.8	2.00	1.78	5.11	60.38	
5,102.5	22.31	49.62	4,812.5	1,030.5	1,148.4	0.00	0.00	0.00	0.00	
6,218.0	0.00	0.00	5,900.0	1,169.4	1,311.8	2.00	-2.00	0.00	180.00	TARGET BHL 660'I
8,067.0	0.00	0.00	7,749.0	1,169.4	1,311.8	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-02D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-02D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-02D Plan #1 (4-19-11)		

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)
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	0.80	0.00	440.0	0.3	0.0	0.2	2.00	2.00	0.00
480.0	1.60	0.00	480.0	1.1	0.0	0.7	2.00	2.00	0.00
520.0	2.40	0.00	520.0	2.5	0.0	1.7	2.00	2.00	0.00
560.0	3.20	0.00	559.9	4.5	0.0	3.0	2.00	2.00	0.00
600.0	4.00	0.00	599.8	7.0	0.0	4.6	2.00	2.00	0.00
640.0	4.80	0.00	639.7	10.0	0.0	6.7	2.00	2.00	0.00
680.0	5.00	0.00	649.7	10.9	0.0	7.3	2.00	2.00	0.00
720.0	5.32	5.63	679.6	13.6	0.1	9.1	2.00	1.07	18.77
760.0	5.82	12.09	719.4	17.4	0.7	12.1	2.00	1.25	16.14
800.0	6.38	17.48	759.1	21.5	1.8	15.7	2.00	1.40	13.47
840.0	6.99	21.97	798.9	25.9	3.4	19.8	2.00	1.52	11.22
880.0	7.63	25.72	838.5	30.5	5.5	24.4	2.00	1.61	9.39
920.0	7.82	26.69	850.0	31.9	6.2	25.9	2.00	1.65	8.39
8 5/8"									
880.0	8.30	28.89	878.2	35.5	8.0	29.6	2.00	1.68	7.72
920.0	8.99	31.58	917.7	40.7	11.1	35.3	2.00	1.73	6.72
960.0	9.70	33.88	957.2	46.1	14.6	41.6	2.00	1.77	5.76
1,000.0	10.42	35.87	996.6	51.8	18.6	48.4	2.00	1.80	4.98
1,040.0	11.15	37.61	1,035.9	57.8	23.0	55.7	2.00	1.83	4.34
1,080.0	11.89	39.13	1,075.1	64.1	28.0	63.6	2.00	1.85	3.81
1,120.0	12.64	40.47	1,114.1	70.6	33.4	72.0	2.00	1.87	3.36
1,160.0	13.39	41.67	1,153.1	77.4	39.4	80.9	2.00	1.88	2.99
1,200.0	14.15	42.74	1,192.0	84.5	45.8	90.4	2.00	1.90	2.68
1,240.0	14.91	43.71	1,230.7	91.8	52.6	100.4	2.00	1.91	2.41
1,280.0	15.68	44.58	1,269.3	99.3	60.0	110.9	2.00	1.92	2.18
1,320.0	16.45	45.37	1,307.7	107.2	67.8	121.9	2.00	1.92	1.98
1,360.0	17.22	46.09	1,346.0	115.2	76.1	133.5	2.00	1.93	1.81
1,400.0	17.99	46.76	1,384.1	123.6	84.9	145.6	2.00	1.94	1.66
1,440.0	18.77	47.37	1,422.1	132.2	94.1	158.2	2.00	1.94	1.52
1,480.0	19.55	47.93	1,459.9	141.0	103.8	171.3	2.00	1.95	1.41
1,520.0	20.33	48.45	1,497.5	150.1	114.0	185.0	2.00	1.95	1.30
1,560.0	21.11	48.93	1,534.9	159.4	124.6	199.1	2.00	1.95	1.21
1,600.0	21.89	49.39	1,572.1	169.0	135.7	213.8	2.00	1.96	1.13
1,621.4	22.31	49.62	1,591.9	174.3	141.8	221.8	2.00	1.96	1.07
1,640.0	22.31	49.62	1,609.1	178.8	147.2	228.9	0.00	0.00	0.00
1,680.0	22.31	49.62	1,646.1	188.7	158.8	244.1	0.00	0.00	0.00
1,720.0	22.31	49.62	1,683.1	198.5	170.3	259.2	0.00	0.00	0.00
1,760.0	22.31	49.62	1,720.1	208.4	181.9	274.4	0.00	0.00	0.00
1,800.0	22.31	49.62	1,757.2	218.2	193.4	289.6	0.00	0.00	0.00
1,840.0	22.31	49.62	1,794.2	228.0	205.0	304.8	0.00	0.00	0.00
1,880.0	22.31	49.62	1,831.2	237.9	216.6	320.0	0.00	0.00	0.00
1,920.0	22.31	49.62	1,868.2	247.7	228.1	335.1	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-02D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-02D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-02D Plan #1 (4-19-11)		

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)
1,960.0	22.31	49.62	1,905.2	257.5	239.7	350.3	0.00	0.00	0.00
2,000.0	22.31	49.62	1,942.2	267.4	251.3	365.5	0.00	0.00	0.00
2,040.0	22.31	49.62	1,979.2	277.2	262.8	380.7	0.00	0.00	0.00
2,080.0	22.31	49.62	2,016.2	287.1	274.4	395.9	0.00	0.00	0.00
2,120.0	22.31	49.62	2,053.2	296.9	286.0	411.0	0.00	0.00	0.00
2,160.0	22.31	49.62	2,090.2	306.7	297.5	426.2	0.00	0.00	0.00
2,200.0	22.31	49.62	2,127.2	316.6	309.1	441.4	0.00	0.00	0.00
2,240.0	22.31	49.62	2,164.2	326.4	320.7	456.6	0.00	0.00	0.00
2,280.0	22.31	49.62	2,201.2	336.3	332.2	471.8	0.00	0.00	0.00
2,320.0	22.31	49.62	2,238.2	346.1	343.8	486.9	0.00	0.00	0.00
2,360.0	22.31	49.62	2,275.2	355.9	355.4	502.1	0.00	0.00	0.00
2,400.0	22.31	49.62	2,312.2	365.8	366.9	517.3	0.00	0.00	0.00
2,440.0	22.31	49.62	2,349.2	375.6	378.5	532.5	0.00	0.00	0.00
2,480.0	22.31	49.62	2,386.3	385.4	390.1	547.7	0.00	0.00	0.00
2,520.0	22.31	49.62	2,423.3	395.3	401.6	562.8	0.00	0.00	0.00
2,560.0	22.31	49.62	2,460.3	405.1	413.2	578.0	0.00	0.00	0.00
2,600.0	22.31	49.62	2,497.3	415.0	424.8	593.2	0.00	0.00	0.00
2,640.0	22.31	49.62	2,534.3	424.8	436.3	608.4	0.00	0.00	0.00
2,680.0	22.31	49.62	2,571.3	434.6	447.9	623.6	0.00	0.00	0.00
2,720.0	22.31	49.62	2,608.3	444.5	459.5	638.7	0.00	0.00	0.00
2,760.0	22.31	49.62	2,645.3	454.3	471.0	653.9	0.00	0.00	0.00
2,800.0	22.31	49.62	2,682.3	464.2	482.6	669.1	0.00	0.00	0.00
2,840.0	22.31	49.62	2,719.3	474.0	494.2	684.3	0.00	0.00	0.00
2,880.0	22.31	49.62	2,756.3	483.8	505.7	699.5	0.00	0.00	0.00
2,920.0	22.31	49.62	2,793.3	493.7	517.3	714.7	0.00	0.00	0.00
2,960.0	22.31	49.62	2,830.3	503.5	528.9	729.8	0.00	0.00	0.00
3,000.0	22.31	49.62	2,867.3	513.3	540.4	745.0	0.00	0.00	0.00
3,040.0	22.31	49.62	2,904.3	523.2	552.0	760.2	0.00	0.00	0.00
3,080.0	22.31	49.62	2,941.3	533.0	563.6	775.4	0.00	0.00	0.00
3,120.0	22.31	49.62	2,978.3	542.9	575.1	790.6	0.00	0.00	0.00
3,160.0	22.31	49.62	3,015.3	552.7	586.7	805.7	0.00	0.00	0.00
3,200.0	22.31	49.62	3,052.4	562.5	598.3	820.9	0.00	0.00	0.00
3,240.0	22.31	49.62	3,089.4	572.4	609.8	836.1	0.00	0.00	0.00
3,280.0	22.31	49.62	3,126.4	582.2	621.4	851.3	0.00	0.00	0.00
3,320.0	22.31	49.62	3,163.4	592.1	633.0	866.5	0.00	0.00	0.00
3,360.0	22.31	49.62	3,200.4	601.9	644.5	881.6	0.00	0.00	0.00
3,400.0	22.31	49.62	3,237.4	611.7	656.1	896.8	0.00	0.00	0.00
3,440.0	22.31	49.62	3,274.4	621.6	667.7	912.0	0.00	0.00	0.00
3,480.0	22.31	49.62	3,311.4	631.4	679.2	927.2	0.00	0.00	0.00
3,520.0	22.31	49.62	3,348.4	641.2	690.8	942.4	0.00	0.00	0.00
3,560.0	22.31	49.62	3,385.4	651.1	702.4	957.5	0.00	0.00	0.00
3,600.0	22.31	49.62	3,422.4	660.9	713.9	972.7	0.00	0.00	0.00
3,640.0	22.31	49.62	3,459.4	670.8	725.5	987.9	0.00	0.00	0.00
3,680.0	22.31	49.62	3,496.4	680.6	737.1	1,003.1	0.00	0.00	0.00
3,720.0	22.31	49.62	3,533.4	690.4	748.6	1,018.3	0.00	0.00	0.00
3,760.0	22.31	49.62	3,570.4	700.3	760.2	1,033.4	0.00	0.00	0.00
3,800.0	22.31	49.62	3,607.4	710.1	771.8	1,048.6	0.00	0.00	0.00
3,840.0	22.31	49.62	3,644.4	720.0	783.3	1,063.8	0.00	0.00	0.00
3,880.0	22.31	49.62	3,681.5	729.8	794.9	1,079.0	0.00	0.00	0.00
3,920.0	22.31	49.62	3,718.5	739.6	806.5	1,094.2	0.00	0.00	0.00
3,960.0	22.31	49.62	3,755.5	749.5	818.0	1,109.3	0.00	0.00	0.00
4,000.0	22.31	49.62	3,792.5	759.3	829.6	1,124.5	0.00	0.00	0.00
4,040.0	22.31	49.62	3,829.5	769.1	841.2	1,139.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-02D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-02D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-02D Plan #1 (4-19-11)		

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)
4,080.0	22.31	49.62	3,866.5	779.0	852.7	1,154.9	0.00	0.00	0.00
4,120.0	22.31	49.62	3,903.5	788.8	864.3	1,170.1	0.00	0.00	0.00
4,160.0	22.31	49.62	3,940.5	798.7	875.9	1,185.3	0.00	0.00	0.00
4,200.0	22.31	49.62	3,977.5	808.5	887.4	1,200.4	0.00	0.00	0.00
4,240.0	22.31	49.62	4,014.5	818.3	899.0	1,215.6	0.00	0.00	0.00
4,280.0	22.31	49.62	4,051.5	828.2	910.6	1,230.8	0.00	0.00	0.00
4,320.0	22.31	49.62	4,088.5	838.0	922.1	1,246.0	0.00	0.00	0.00
4,360.0	22.31	49.62	4,125.5	847.9	933.7	1,261.2	0.00	0.00	0.00
4,400.0	22.31	49.62	4,162.5	857.7	945.3	1,276.3	0.00	0.00	0.00
4,440.0	22.31	49.62	4,199.5	867.5	956.8	1,291.5	0.00	0.00	0.00
4,480.0	22.31	49.62	4,236.5	877.4	968.4	1,306.7	0.00	0.00	0.00
4,520.0	22.31	49.62	4,273.5	887.2	980.0	1,321.9	0.00	0.00	0.00
4,560.0	22.31	49.62	4,310.5	897.0	991.5	1,337.1	0.00	0.00	0.00
4,600.0	22.31	49.62	4,347.6	906.9	1,003.1	1,352.2	0.00	0.00	0.00
4,640.0	22.31	49.62	4,384.6	916.7	1,014.7	1,367.4	0.00	0.00	0.00
4,680.0	22.31	49.62	4,421.6	926.6	1,026.2	1,382.6	0.00	0.00	0.00
4,720.0	22.31	49.62	4,458.6	936.4	1,037.8	1,397.8	0.00	0.00	0.00
4,760.0	22.31	49.62	4,495.6	946.2	1,049.4	1,413.0	0.00	0.00	0.00
4,800.0	22.31	49.62	4,532.6	956.1	1,060.9	1,428.1	0.00	0.00	0.00
4,840.0	22.31	49.62	4,569.6	965.9	1,072.5	1,443.3	0.00	0.00	0.00
4,880.0	22.31	49.62	4,606.6	975.8	1,084.1	1,458.5	0.00	0.00	0.00
4,920.0	22.31	49.62	4,643.6	985.6	1,095.6	1,473.7	0.00	0.00	0.00
4,960.0	22.31	49.62	4,680.6	995.4	1,107.2	1,488.9	0.00	0.00	0.00
5,000.0	22.31	49.62	4,717.6	1,005.3	1,118.8	1,504.0	0.00	0.00	0.00
5,040.0	22.31	49.62	4,754.6	1,015.1	1,130.3	1,519.2	0.00	0.00	0.00
5,080.0	22.31	49.62	4,791.6	1,024.9	1,141.9	1,534.4	0.00	0.00	0.00
5,102.5	22.31	49.62	4,812.5	1,030.5	1,148.4	1,543.0	0.00	0.00	0.00
5,120.0	21.96	49.62	4,828.6	1,034.7	1,153.4	1,549.5	2.00	-2.00	0.00
5,160.0	21.16	49.62	4,865.8	1,044.3	1,164.6	1,564.2	2.00	-2.00	0.00
5,200.0	20.36	49.62	4,903.3	1,053.5	1,175.4	1,578.4	2.00	-2.00	0.00
5,240.0	19.56	49.62	4,940.8	1,062.3	1,185.8	1,592.1	2.00	-2.00	0.00
5,280.0	18.76	49.62	4,978.6	1,070.8	1,195.8	1,605.2	2.00	-2.00	0.00
5,320.0	17.96	49.62	5,016.6	1,079.0	1,205.4	1,617.8	2.00	-2.00	0.00
5,360.0	17.16	49.62	5,054.7	1,086.8	1,214.6	1,629.8	2.00	-2.00	0.00
5,400.0	16.36	49.62	5,093.0	1,094.3	1,223.4	1,641.4	2.00	-2.00	0.00
5,440.0	15.56	49.62	5,131.5	1,101.4	1,231.8	1,652.4	2.00	-2.00	0.00
5,480.0	14.76	49.62	5,170.1	1,108.2	1,239.7	1,662.8	2.00	-2.00	0.00
5,520.0	13.96	49.62	5,208.8	1,114.6	1,247.3	1,672.8	2.00	-2.00	0.00
5,560.0	13.16	49.62	5,247.7	1,120.7	1,254.4	1,682.1	2.00	-2.00	0.00
5,600.0	12.36	49.62	5,286.7	1,126.4	1,261.2	1,691.0	2.00	-2.00	0.00
5,640.0	11.56	49.62	5,325.9	1,131.8	1,267.5	1,699.2	2.00	-2.00	0.00
5,680.0	10.76	49.62	5,365.1	1,136.8	1,273.4	1,707.0	2.00	-2.00	0.00
5,720.0	9.96	49.62	5,404.5	1,141.5	1,278.9	1,714.2	2.00	-2.00	0.00
5,760.0	9.16	49.62	5,443.9	1,145.8	1,283.9	1,720.8	2.00	-2.00	0.00
5,800.0	8.36	49.62	5,483.4	1,149.7	1,288.6	1,726.9	2.00	-2.00	0.00
5,840.0	7.56	49.62	5,523.1	1,153.3	1,292.8	1,732.5	2.00	-2.00	0.00
5,880.0	6.76	49.62	5,562.7	1,156.5	1,296.6	1,737.4	2.00	-2.00	0.00
5,920.0	5.96	49.62	5,602.5	1,159.4	1,300.0	1,741.9	2.00	-2.00	0.00
5,960.0	5.16	49.62	5,642.3	1,161.9	1,302.9	1,745.7	2.00	-2.00	0.00
6,000.0	4.36	49.62	5,682.2	1,164.1	1,305.4	1,749.1	2.00	-2.00	0.00
6,040.0	3.56	49.62	5,722.1	1,165.8	1,307.5	1,751.8	2.00	-2.00	0.00
6,080.0	2.76	49.62	5,762.0	1,167.3	1,309.2	1,754.0	2.00	-2.00	0.00
6,120.0	1.96	49.62	5,802.0	1,168.3	1,310.5	1,755.7	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-02D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-02D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-02D Plan #1 (4-19-11)		

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)
6,160.0	1.16	49.62	5,842.0	1,169.0	1,311.3	1,756.8	2.00	-2.00	0.00
6,200.0	0.36	49.62	5,882.0	1,169.4	1,311.7	1,757.3	2.00	-2.00	0.00
6,218.0	0.00	0.00	5,900.0	1,169.4	1,311.8	1,757.4	2.00	-2.00	0.00
TARGET BHL 660'FNL, 1970'FEL									
6,240.0	0.00	0.00	5,922.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,280.0	0.00	0.00	5,962.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,320.0	0.00	0.00	6,002.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,360.0	0.00	0.00	6,042.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,082.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,440.0	0.00	0.00	6,122.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,480.0	0.00	0.00	6,162.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,520.0	0.00	0.00	6,202.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,560.0	0.00	0.00	6,242.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,282.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,640.0	0.00	0.00	6,322.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,680.0	0.00	0.00	6,362.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,720.0	0.00	0.00	6,402.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,760.0	0.00	0.00	6,442.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,482.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,840.0	0.00	0.00	6,522.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,880.0	0.00	0.00	6,562.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,920.0	0.00	0.00	6,602.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
6,960.0	0.00	0.00	6,642.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,682.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,040.0	0.00	0.00	6,722.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,080.0	0.00	0.00	6,762.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,120.0	0.00	0.00	6,802.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,150.0	0.00	0.00	6,832.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
NOBRARA - LEGAL BOX 400' X 400' 665'FNL & 1994'FEL - TARGET CIRCLE 660'FNL, 1970'FEL									
7,160.0	0.00	0.00	6,842.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,200.0	0.00	0.00	6,882.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,240.0	0.00	0.00	6,922.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,280.0	0.00	0.00	6,962.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,320.0	0.00	0.00	7,002.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,360.0	0.00	0.00	7,042.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,082.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,440.0	0.00	0.00	7,122.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,472.0	0.00	0.00	7,154.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
CODELL									
7,480.0	0.00	0.00	7,162.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,520.0	0.00	0.00	7,202.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,560.0	0.00	0.00	7,242.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,600.0	0.00	0.00	7,282.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,640.0	0.00	0.00	7,322.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,680.0	0.00	0.00	7,362.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,720.0	0.00	0.00	7,402.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,760.0	0.00	0.00	7,442.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,800.0	0.00	0.00	7,482.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,840.0	0.00	0.00	7,522.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
7,859.0	0.00	0.00	7,541.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00
D-SAND									
7,880.0	0.00	0.00	7,562.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Shaklee USX X25-02D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4917.0ft (Original Well Elev)
Project:	SEC.25-T2N-R65W	MD Reference:	WELL @ 4917.0ft (Original Well Elev)
Site:	Shaklee USX X25-02D Pad Sec.25-T2N-R65W	North Reference:	True
Well:	Shaklee USX X25-02D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Shaklee USX X25-02D Plan #1 (4-19-11)		

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)	
7,917.0	0.00	0.00	7,599.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00	
J-SAND										
7,920.0	0.00	0.00	7,602.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00	
7,960.0	0.00	0.00	7,642.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,682.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00	
8,040.0	0.00	0.00	7,722.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00	
8,067.0	0.00	0.00	7,749.0	1,169.4	1,311.8	1,757.4	0.00	0.00	0.00	

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- hit/miss target										
- Shape										
LEGAL BOX 400' X 400'	0.00	0.00	6,832.0	1,164.4	1,287.8	1,285,950.21	3,248,941.62	40.114896	-104.609896	
- plan misses target center by 24.5ft at 7150.0ft MD (6832.0 TVD, 1169.4 N, 1311.8 E)										
- Rectangle (sides W400.0 H400.0 D917.0)										
TARGET CIRCLE 66'	0.00	0.00	6,832.0	1,169.4	1,311.8	1,285,955.47	3,248,965.53	40.114910	-104.609810	
- plan hits target center										
- Circle (radius 75.0)										
TARGET BHL 660'FN	0.00	0.00	5,900.0	1,169.4	1,311.8	1,285,955.47	3,248,965.53	40.114910	-104.609810	
- plan hits target center										
- Point										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
851.6	850.0	8 5/8"	8-5/8	12-1/4		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,150.0	6,832.0	NIOBRARA		0.00		
7,472.0	7,154.0	CODELL		0.00		
7,859.0	7,541.0	D-SAND		0.00		
7,917.0	7,599.0	J-SAND		0.00		