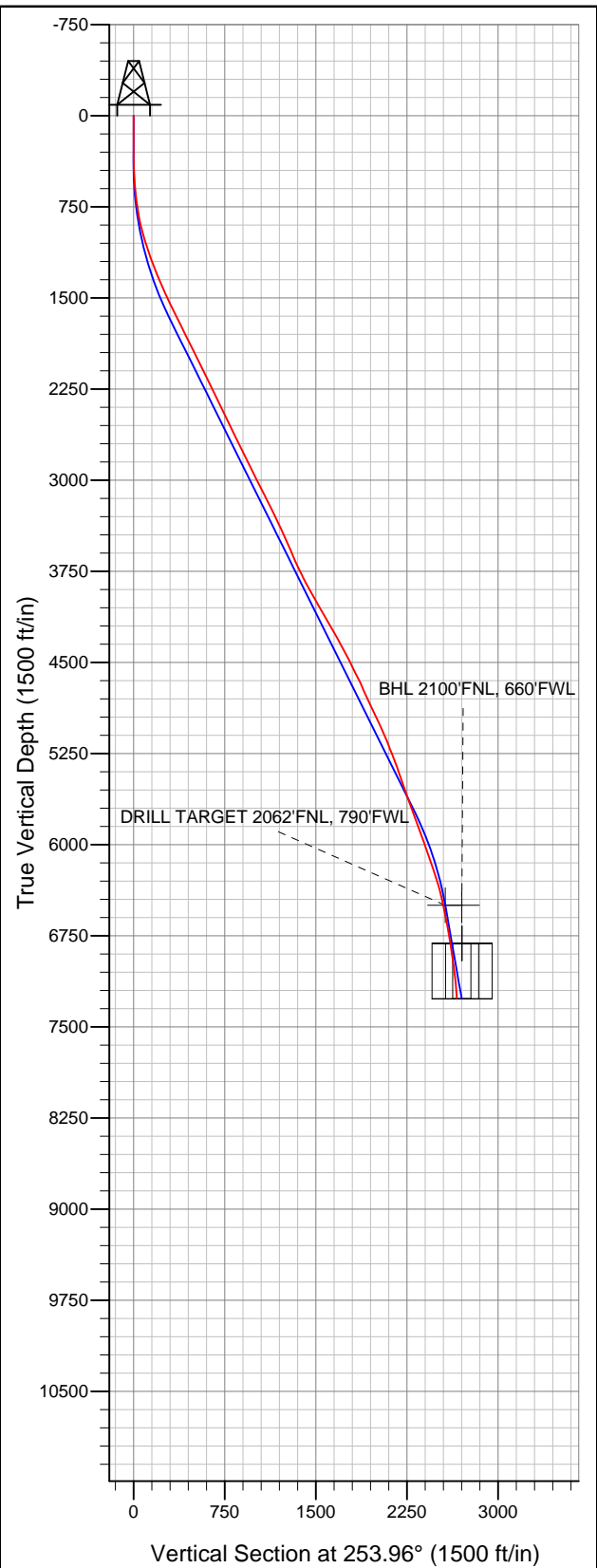
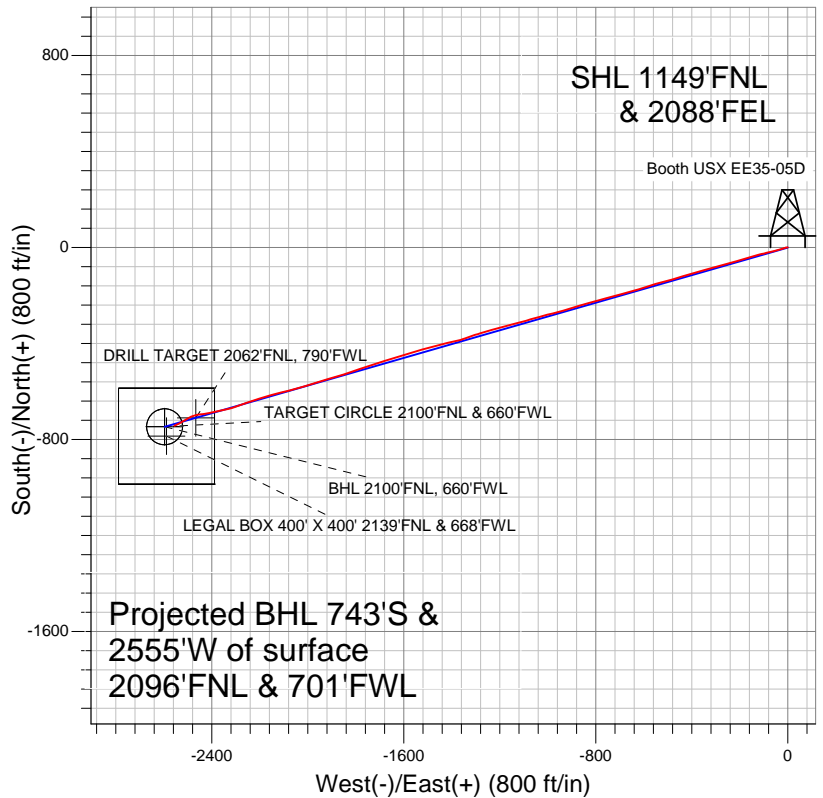




Well Name: **Booth USX EE35-05D**
Surface Location: Booth USX EE35-05D Pad Sec.35-T7N-R65W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 4831.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1438878.23 3242365.70 40.534850 -104.628030
Original Well EleWELL @ 4844.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Booth USX EE35-05D, Wellbore #1, Noble Booth USX EE35-05D Plan #1 (7-13-11) V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
7821'MD & 7264'TVD @ 2661' VS
3.6 deg Inc 242.1 deg AZ

Project: SEC.35-T7N-R65W
Site: Booth USX EE35-05D Pad Sec.35-T7N-R65W
Well: Booth USX EE35-05D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.35-T7N-R65W

Booth USX EE35-05D Pad Sec.35-T7N-R65W

Booth USX EE35-05D

Wellbore #1

Design: Wellbore #1

Standard Survey Report

12 October, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Booth USX EE35-05D
Project:	SEC.35-T7N-R65W	TVD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Well:	Booth USX EE35-05D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.35-T7N-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	Booth USX EE35-05D Pad Sec.35-T7N-R65W		
Site Position:		Northing:	1,438,878.24 ft
From:	Lat/Long	Easting:	3,242,365.69 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.534850
		Longitude:	-104.628030
		Grid Convergence:	0.56 °

Well	Booth USX EE35-05D		
Well Position	+N/-S	0.0 ft	Northing: 1,438,878.23 ft
	+E/-W	0.0 ft	Easting: 3,242,365.70 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.534850
		Longitude:	-104.628030
		Ground Level:	4,831.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/2/2011	8.76	67.17	53,185

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 (°)	
	6,500.0	0.0	0.0	253.96	

Survey Program	Date	10/12/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
137.0	7,821.0	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	
137.0	0.20	273.30	137.0	0.0	-0.2	0.2	0.15	0.15	0.00	
232.0	0.20	287.20	232.0	0.1	-0.6	0.5	0.05	0.00	14.63	
327.0	0.40	267.20	327.0	0.1	-1.1	1.0	0.23	0.21	-21.05	
422.0	2.00	273.60	422.0	0.2	-3.0	2.9	1.69	1.68	6.74	
517.0	3.30	260.60	516.9	-0.1	-7.4	7.1	1.50	1.37	-13.68	
612.0	5.20	248.10	611.6	-2.2	-14.1	14.1	2.21	2.00	-13.16	
737.0	8.80	254.20	735.7	-6.9	-28.5	29.3	2.94	2.88	4.88	
817.0	9.60	256.10	814.6	-10.2	-40.9	42.1	1.07	1.00	2.38	
898.0	12.70	255.30	894.1	-14.1	-56.1	57.8	3.83	3.83	-0.99	
980.0	15.30	255.60	973.6	-19.1	-75.3	77.6	3.17	3.17	0.37	
1,062.0	17.60	257.30	1,052.3	-24.5	-97.9	100.8	2.87	2.80	2.07	
1,143.0	19.10	255.60	1,129.2	-30.5	-122.6	126.3	1.97	1.85	-2.10	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Booth USX EE35-05D
Project:	SEC.35-T7N-R65W	TVD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Well:	Booth USX EE35-05D	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)	
1,225.0	20.50	251.40	1,206.3	-38.4	-149.2	154.0	2.43	1.71	-5.12	
1,307.0	21.70	253.80	1,282.8	-47.2	-177.4	183.5	1.80	1.46	2.93	
1,389.0	23.00	254.90	1,358.7	-55.6	-207.4	214.7	1.67	1.59	1.34	
1,470.0	24.40	255.60	1,432.8	-63.9	-238.9	247.3	1.76	1.73	0.86	
1,552.0	25.00	255.60	1,507.3	-72.4	-272.1	281.5	0.73	0.73	0.00	
1,634.0	26.20	255.60	1,581.3	-81.2	-306.4	316.9	1.46	1.46	0.00	
1,716.0	26.30	253.40	1,654.8	-90.9	-341.4	353.2	1.19	0.12	-2.68	
1,798.0	26.50	252.80	1,728.3	-101.5	-376.3	389.7	0.41	0.24	-0.73	
1,880.0	26.50	251.80	1,801.7	-112.6	-411.1	426.2	0.54	0.00	-1.22	
1,961.0	26.20	254.50	1,874.2	-123.0	-445.5	462.2	1.53	-0.37	3.33	
2,043.0	26.10	254.20	1,947.8	-132.8	-480.3	498.3	0.20	-0.12	-0.37	
2,125.0	26.30	255.50	2,021.4	-142.2	-515.3	534.5	0.74	0.24	1.59	
2,207.0	26.80	253.20	2,094.8	-152.1	-550.5	571.1	1.39	0.61	-2.80	
2,288.0	26.50	252.70	2,167.2	-162.8	-585.3	607.5	0.46	-0.37	-0.62	
2,370.0	25.50	253.40	2,240.9	-173.3	-619.7	643.4	1.28	-1.22	0.85	
2,452.0	25.80	253.50	2,314.8	-183.4	-653.7	678.9	0.37	0.37	0.12	
2,534.0	26.30	255.30	2,388.5	-193.1	-688.4	714.9	1.14	0.61	2.20	
2,615.0	26.50	254.40	2,461.0	-202.5	-723.1	750.9	0.55	0.25	-1.11	
2,697.0	25.60	255.60	2,534.7	-211.8	-757.9	786.9	1.27	-1.10	1.46	
2,779.0	25.00	254.90	2,608.8	-220.7	-791.8	822.0	0.82	-0.73	-0.85	
2,861.0	26.20	254.60	2,682.8	-230.0	-826.0	857.4	1.47	1.46	-0.37	
2,942.0	26.30	252.90	2,755.4	-240.1	-860.4	893.2	0.94	0.12	-2.10	
3,024.0	26.40	252.80	2,828.9	-250.8	-895.1	929.6	0.13	0.12	-0.12	
3,106.0	26.70	253.40	2,902.2	-261.5	-930.2	966.2	0.49	0.37	0.73	
3,188.0	26.10	256.10	2,975.7	-271.1	-965.4	1,002.7	1.64	-0.73	3.29	
3,270.0	27.10	255.90	3,049.0	-279.9	-1,001.0	1,039.4	1.22	1.22	-0.24	
3,351.0	27.00	254.50	3,121.2	-289.3	-1,036.6	1,076.2	0.80	-0.12	-1.73	
3,433.0	26.20	253.30	3,194.5	-299.5	-1,071.9	1,112.9	1.18	-0.98	-1.46	
3,515.0	25.80	256.00	3,268.2	-309.0	-1,106.5	1,148.9	1.52	-0.49	3.29	
3,597.0	27.30	253.50	3,341.5	-318.7	-1,141.9	1,185.5	2.28	1.83	-3.05	
3,679.0	24.40	256.70	3,415.3	-327.9	-1,176.4	1,221.2	3.92	-3.54	3.90	
3,760.0	22.50	254.90	3,489.6	-335.8	-1,207.7	1,253.4	2.51	-2.35	-2.22	
3,842.0	23.30	252.10	3,565.2	-344.9	-1,238.2	1,285.3	1.65	0.98	-3.41	
3,924.0	24.20	255.30	3,640.2	-354.1	-1,269.9	1,318.4	1.92	1.10	3.90	
4,005.0	25.70	250.30	3,713.7	-364.3	-1,302.5	1,352.5	3.19	1.85	-6.17	
4,087.0	26.20	250.90	3,787.4	-376.2	-1,336.4	1,388.3	0.69	0.61	0.73	
4,169.0	28.40	256.10	3,860.3	-386.8	-1,372.4	1,425.9	3.95	2.68	6.34	
4,251.0	29.00	255.90	3,932.2	-396.3	-1,410.6	1,465.2	0.74	0.73	-0.24	
4,332.0	29.50	256.00	4,002.9	-405.9	-1,449.0	1,504.8	0.62	0.62	0.12	
4,414.0	30.60	255.50	4,073.9	-416.1	-1,488.8	1,545.8	1.38	1.34	-0.61	
4,496.0	30.80	254.30	4,144.4	-427.0	-1,529.2	1,587.7	0.79	0.24	-1.46	
4,577.0	30.20	253.40	4,214.2	-438.4	-1,568.7	1,628.8	0.93	-0.74	-1.11	
4,659.0	27.80	254.20	4,285.9	-449.5	-1,606.9	1,668.5	2.96	-2.93	0.98	
4,741.0	28.80	251.90	4,358.1	-460.8	-1,644.1	1,707.4	1.80	1.22	-2.80	
4,823.0	28.10	251.40	4,430.2	-473.1	-1,681.2	1,746.4	0.90	-0.85	-0.61	
4,904.0	26.80	251.30	4,502.0	-485.1	-1,716.5	1,783.7	1.61	-1.60	-0.12	
4,986.0	26.40	253.40	4,575.4	-496.2	-1,751.5	1,820.4	1.25	-0.49	2.56	
5,068.0	26.20	250.80	4,648.9	-507.4	-1,786.1	1,856.7	1.43	-0.24	-3.17	
5,150.0	23.90	251.30	4,723.2	-518.6	-1,818.9	1,891.4	2.82	-2.80	0.61	
5,231.0	23.90	253.70	4,797.2	-528.5	-1,850.2	1,924.2	1.20	0.00	2.96	
5,313.0	25.00	253.10	4,871.9	-538.2	-1,882.7	1,958.1	1.38	1.34	-0.73	
5,395.0	26.90	253.00	4,945.6	-548.7	-1,917.1	1,994.0	2.32	2.32	-0.12	
5,477.0	24.50	252.00	5,019.5	-559.4	-1,951.0	2,029.6	2.97	-2.93	-1.22	
5,559.0	22.40	254.20	5,094.7	-568.9	-1,982.2	2,062.2	2.77	-2.56	2.68	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Booth USX EE35-05D
Project:	SEC.35-T7N-R65W	TVD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Well:	Booth USX EE35-05D	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)	
5,640.0	23.00	254.40	5,169.4	-577.3	-2,012.3	2,093.4	0.75	0.74	0.25	
5,722.0	20.40	251.90	5,245.6	-586.1	-2,041.3	2,123.8	3.36	-3.17	-3.05	
5,804.0	21.10	255.60	5,322.3	-594.2	-2,069.2	2,152.8	1.81	0.85	4.51	
5,886.0	19.50	257.40	5,399.2	-600.8	-2,096.8	2,181.2	2.09	-1.95	2.20	
5,967.0	18.60	255.50	5,475.8	-607.0	-2,122.5	2,207.6	1.35	-1.11	-2.35	
6,049.0	19.80	254.80	5,553.2	-613.9	-2,148.6	2,234.6	1.49	1.46	-0.85	
6,131.0	20.50	252.50	5,630.2	-621.9	-2,175.7	2,262.8	1.29	0.85	-2.80	
6,212.0	19.70	254.10	5,706.3	-629.9	-2,202.3	2,290.6	1.20	-0.99	1.98	
6,294.0	19.30	251.40	5,783.6	-638.0	-2,228.5	2,318.0	1.20	-0.49	-3.29	
6,376.0	20.20	249.10	5,860.7	-647.4	-2,254.5	2,345.7	1.45	1.10	-2.80	
6,458.0	19.80	251.00	5,937.8	-657.0	-2,280.9	2,373.6	0.93	-0.49	2.32	
6,539.0	19.40	252.90	6,014.1	-665.4	-2,306.7	2,400.8	0.93	-0.49	2.35	
6,621.0	20.10	255.60	6,091.3	-672.9	-2,333.4	2,428.5	1.40	0.85	3.29	
6,703.0	19.40	258.00	6,168.4	-679.2	-2,360.4	2,456.2	1.31	-0.85	2.93	
6,785.0	17.20	259.30	6,246.3	-684.3	-2,385.6	2,481.8	2.73	-2.68	1.59	
6,867.0	16.20	258.90	6,324.8	-688.8	-2,408.7	2,505.3	1.23	-1.22	-0.49	
6,948.0	14.00	259.20	6,403.0	-692.8	-2,429.5	2,526.3	2.72	-2.72	0.37	
7,030.0	13.40	264.80	6,482.7	-695.5	-2,448.7	2,545.5	1.77	-0.73	6.83	
7,051.0	12.86	262.78	6,503.2	-696.0	-2,453.4	2,550.2	3.37	-2.56	-9.61	
DRILL TARGET 2062'FNL, 790'FWL										
7,079.3	12.16	259.79	6,530.8	-696.9	-2,459.5	2,556.3	3.37	-2.47	-10.57	
BHL 2100'FNL, 660'FWL										
7,112.0	11.40	255.90	6,562.8	-698.3	-2,466.0	2,562.9	3.37	-2.33	-11.90	
7,194.0	10.90	249.70	6,643.2	-703.0	-2,481.1	2,578.8	1.58	-0.61	-7.56	
7,275.0	9.30	242.70	6,723.0	-708.7	-2,494.1	2,592.8	2.49	-1.98	-8.64	
7,357.0	8.80	236.00	6,804.0	-715.2	-2,505.2	2,605.3	1.42	-0.61	-8.17	
7,381.6	8.95	236.82	6,828.3	-717.3	-2,508.4	2,608.9	0.80	0.61	3.33	
TARGET CIRCLE 2100'FNL & 660'FWL										
7,384.0	8.96	236.90	6,830.7	-717.5	-2,508.7	2,609.3	0.80	0.61	3.27	
LEGAL BOX 400' X 400' 2139'FNL & 668'FWL										
7,438.0	9.30	238.60	6,884.0	-722.1	-2,515.9	2,617.5	0.80	0.62	3.15	
7,520.0	9.40	241.60	6,964.9	-728.7	-2,527.5	2,630.4	0.61	0.12	3.66	
7,602.0	6.70	243.30	7,046.1	-734.0	-2,537.6	2,641.7	3.31	-3.29	2.07	
7,683.0	5.50	243.60	7,126.6	-737.9	-2,545.3	2,650.1	1.48	-1.48	0.37	
7,765.0	4.60	245.10	7,208.3	-741.0	-2,551.8	2,657.3	1.11	-1.10	1.83	
7,821.0	3.60	242.10	7,264.1	-742.8	-2,555.4	2,661.2	1.83	-1.79	-5.36	

Checked By: _____	Approved By: _____	Date: _____
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