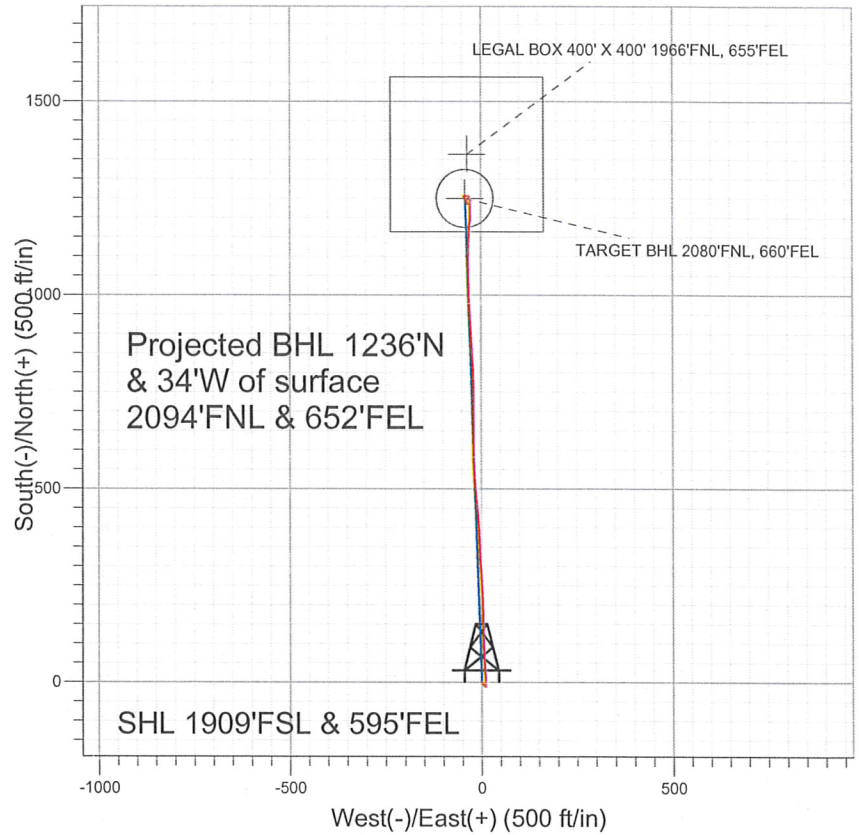


NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- △ Pioneer Y07-08D, Wellbore #1, Noble Pioneer Y07-08D Plan #2 (6-03-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7911'MD & 7722'TVD @ 1236'VS
0.4 deg Inc 145.6 deg AZ

Project: SEC.7-T2N-R64W
Site: Pioneer Y07-08D Pad Sec.7-T2N-R64W
Well: Pioneer Y07-08D
Plan: Wellbore #1



Directional

**NOBLE ENERGY INC WELD
COUNTY CO**

SEC.7-T2N-R64W

Pioneer Y07-08D Pad Sec.7-T2N-R64W

Pioneer Y07-08D

Wellbore #1

Survey: Survey #1

Standard Survey Report

23 June, 2011



Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.7-T2N-R64W
Site: Pioneer Y07-08D Pad Sec.7-T2N-R64W
Well: Pioneer Y07-08D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Pioneer Y07-08D
TVD Reference: WELL @ 4873.0ft (Original Well Elev)
MD Reference: WELL @ 4873.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Landmark

Project	SEC.7-T2N-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 Pioneer Y07-08D Pad Sec.7-T2N-R64W

Site Position:		Northing:	1,299,130.06 ft	Latitude:	40.150900
From:	Lat/Long	Easting:	3,255,209.75 ft	Longitude:	-104.587000
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.59 °

Well	Pioneer Y07-08D					
Well Position	+N/-S	0.0 ft	Northing:	1,299,130.05 ft	Latitude:	40.150900
	+E/-W	0.0 ft	Easting:	3,255,209.75 ft	Longitude:	-104.587000
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,860.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/3/2011	8.75	66.88	53,023

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 (°)
	0.0	0.0	0.0	358.08

Survey Program Date 6/23/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
909.0	7,911.0	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
909.0	1.60	140.20	908.9	-9.8	8.1	-10.0	0.18	0.18	0.00
1,003.0	0.70	57.80	1,002.9	-10.5	9.4	-10.8	1.77	-0.96	-87.66
1,097.0	2.40	357.10	1,096.8	-8.2	9.8	-8.5	2.28	1.81	-64.57
1,191.0	3.80	0.00	1,190.7	-3.1	9.7	-3.4	1.50	1.49	3.09
1,285.0	5.10	0.40	1,284.4	4.2	9.8	3.9	1.38	1.38	0.43
1,379.0	6.90	0.30	1,377.9	14.0	9.8	13.7	1.91	1.91	-0.11
1,473.0	8.50	355.40	1,471.0	26.6	9.3	26.3	1.84	1.70	-5.21
1,567.0	10.10	355.10	1,563.8	41.7	8.0	41.4	1.70	1.70	-0.32
1,661.0	11.80	356.30	1,656.1	59.5	6.7	59.3	1.82	1.81	1.28
1,755.0	13.90	358.30	1,747.7	80.4	5.8	80.2	2.28	2.23	2.13
1,849.0	15.40	359.30	1,838.7	104.2	5.3	103.9	1.62	1.60	1.06
1,943.0	17.00	359.40	1,928.9	130.4	5.0	130.2	1.70	1.70	0.11

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MD Reference: WELL @ 4873.0ft (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)
2,037.0	18.20	358.40	2,018.5	158.8	4.4	158.6	1.32	1.28	-1.06
2,130.0	18.50	358.30	2,106.8	188.1	3.6	187.9	0.32	0.32	-0.11
2,224.0	19.40	357.90	2,195.7	218.6	2.6	218.4	0.97	0.96	-0.43
2,318.0	20.20	356.50	2,284.1	250.4	1.0	250.2	0.99	0.85	-1.49
2,412.0	20.60	357.00	2,372.3	283.1	-0.9	283.0	0.46	0.43	0.53
2,506.0	19.70	357.10	2,460.5	315.4	-2.5	315.4	0.96	-0.96	0.11
2,600.0	19.50	357.40	2,549.1	346.9	-4.0	346.9	0.24	-0.21	0.32
2,694.0	19.30	358.10	2,637.7	378.1	-5.3	378.1	0.33	-0.21	0.74
2,788.0	18.90	355.90	2,726.5	408.8	-6.9	408.8	0.88	-0.43	-2.34
2,882.0	20.80	354.00	2,815.0	440.6	-9.7	440.7	2.13	2.02	-2.02
2,976.0	19.40	354.40	2,903.2	472.8	-13.0	472.9	1.50	-1.49	0.43
3,070.0	19.70	355.00	2,991.8	504.1	-15.9	504.3	0.38	0.32	0.64
3,164.0	19.00	356.80	3,080.5	535.2	-18.1	535.5	0.98	-0.74	1.91
3,257.0	18.80	358.20	3,168.5	565.2	-19.4	565.6	0.53	-0.22	1.51
3,351.0	18.90	358.40	3,257.4	595.6	-20.3	596.0	0.13	0.11	0.21
3,445.0	20.30	1.20	3,346.0	627.1	-20.4	627.5	1.79	1.49	2.98
3,539.0	19.50	359.40	3,434.4	659.1	-20.2	659.4	1.07	-0.85	-1.91
3,633.0	18.70	358.40	3,523.2	689.9	-20.8	690.2	0.92	-0.85	-1.06
3,727.0	18.50	1.20	3,612.3	719.8	-20.9	720.1	0.97	-0.21	2.98
3,821.0	18.90	1.20	3,701.3	750.0	-20.3	750.2	0.43	0.43	0.00
3,915.0	18.30	358.10	3,790.4	779.9	-20.5	780.2	1.23	-0.64	-3.30
4,009.0	18.30	357.30	3,879.7	809.4	-21.7	809.7	0.27	0.00	-0.85
4,103.0	18.60	357.00	3,968.8	839.2	-23.1	839.5	0.33	0.32	-0.32
4,197.0	18.40	356.60	4,058.0	868.9	-24.8	869.3	0.25	-0.21	-0.43
4,291.0	17.30	354.00	4,147.5	897.6	-27.1	898.0	1.44	-1.17	-2.77
4,385.0	16.90	356.70	4,237.3	925.2	-29.4	925.6	0.95	-0.43	2.87
4,479.0	16.50	358.70	4,327.3	952.2	-30.5	952.7	0.74	-0.43	2.13
4,573.0	15.50	357.00	4,417.7	978.1	-31.4	978.6	1.17	-1.06	-1.81
4,667.0	15.80	357.50	4,508.2	1,003.4	-32.6	1,003.9	0.35	0.32	0.53
4,760.0	17.10	358.10	4,597.4	1,029.7	-33.7	1,030.3	1.41	1.40	0.65
4,854.0	16.40	358.30	4,687.4	1,056.8	-34.5	1,057.3	0.75	-0.74	0.21
4,948.0	15.60	0.50	4,777.8	1,082.7	-34.8	1,083.2	1.07	-0.85	2.34
5,042.0	16.00	3.70	4,868.2	1,108.2	-33.8	1,108.8	1.02	0.43	3.40
5,136.0	14.70	2.20	4,958.9	1,133.1	-32.5	1,133.5	1.45	-1.38	-1.60
5,230.0	13.80	3.30	5,050.0	1,156.2	-31.4	1,156.6	1.00	-0.96	1.17
5,324.0	13.50	4.50	5,141.3	1,178.3	-29.9	1,178.7	0.44	-0.32	1.28
5,418.0	10.80	2.20	5,233.2	1,198.1	-28.7	1,198.4	2.92	-2.87	-2.45
5,511.0	9.40	0.60	5,324.8	1,214.4	-28.3	1,214.6	1.54	-1.51	-1.72
5,605.0	7.50	358.40	5,417.7	1,228.2	-28.4	1,228.5	2.05	-2.02	-2.34
5,699.0	5.10	358.20	5,511.2	1,238.5	-28.7	1,238.8	2.55	-2.55	-0.21
5,794.0	4.00	353.00	5,605.9	1,246.0	-29.3	1,246.3	1.24	-1.16	-5.47
5,889.0	2.20	346.30	5,700.7	1,251.1	-30.1	1,251.4	1.93	-1.89	-7.05
5,981.0	0.90	324.40	5,792.7	1,253.4	-30.9	1,253.7	1.53	-1.41	-23.80
5,988.4	0.94	323.93	5,800.1	1,253.5	-31.0	1,253.8	0.54	0.53	-6.34
TARGET BHL 2080'FNL, 660'FEL									
6,075.0	1.40	320.40	5,886.7	1,254.9	-32.1	1,255.2	0.54	0.53	-4.08
6,169.0	1.40	274.00	5,980.6	1,255.8	-34.0	1,256.3	1.17	0.00	-49.36
6,263.0	1.50	277.00	6,074.6	1,256.1	-36.3	1,256.6	0.13	0.11	3.19
6,358.0	2.10	276.30	6,169.6	1,256.4	-39.3	1,257.0	0.63	0.63	-0.74
6,452.0	1.10	258.80	6,263.5	1,256.4	-41.9	1,257.1	1.17	-1.06	-18.62
6,545.0	1.40	244.90	6,356.5	1,255.8	-43.8	1,256.5	0.46	0.32	-14.95
6,639.0	1.20	157.90	6,450.5	1,254.4	-44.5	1,255.1	1.91	-0.21	-92.55
6,733.0	1.00	156.80	6,544.5	1,252.7	-43.8	1,253.5	0.21	-0.21	-1.17
6,827.0	0.90	158.70	6,638.5	1,251.2	-43.2	1,252.0	0.11	-0.11	2.02

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6,921.0	1.30	135.10	6,732.4	1,249.8	-42.2	1,250.5	0.63	0.43	-25.11
6,953.2	1.46	140.54	6,764.6	1,249.2	-41.6	1,249.9	0.65	0.50	16.91
LEGAL BOX 400' X 400' 1966'FNL, 655'FEL									
6,955.6	1.47	140.89	6,767.0	1,249.2	-41.6	1,249.9	0.65	0.52	14.88
TARGET CIRCLE 2080'FNL & 660'FEL									
7,015.0	1.80	148.10	6,826.4	1,247.8	-40.6	1,248.5	0.65	0.55	12.12
7,109.0	1.10	151.10	6,920.4	1,245.8	-39.4	1,246.4	0.75	-0.74	3.19
7,203.0	1.20	160.00	7,014.4	1,244.0	-38.6	1,244.6	0.22	0.11	9.47
7,297.0	0.80	160.90	7,108.3	1,242.5	-38.1	1,243.1	0.43	-0.43	0.96
7,391.0	0.70	149.20	7,202.3	1,241.4	-37.6	1,241.9	0.19	-0.11	-12.45
7,485.0	1.10	138.00	7,296.3	1,240.2	-36.7	1,240.7	0.46	0.43	-11.91
7,576.0	1.00	158.90	7,387.3	1,238.8	-35.8	1,239.3	0.43	-0.11	22.97
7,673.0	0.80	149.90	7,484.3	1,237.5	-35.2	1,237.9	0.25	-0.21	-9.28
7,767.0	0.60	132.60	7,578.3	1,236.5	-34.5	1,237.0	0.31	-0.21	-18.40
7,861.0	0.40	145.60	7,672.3	1,235.9	-33.9	1,236.4	0.24	-0.21	13.83
7,911.0	0.40	145.60	7,722.3	1,235.7	-33.7	1,236.1	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____