

Well Name: **Green USX XX07-07D**

Surface Location: Green USX XX07-07D Pad Sec.7-T1N-R65W  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4986.0

+N/-S +E/-W  
0.0 0.0

Northing  
1269175.19

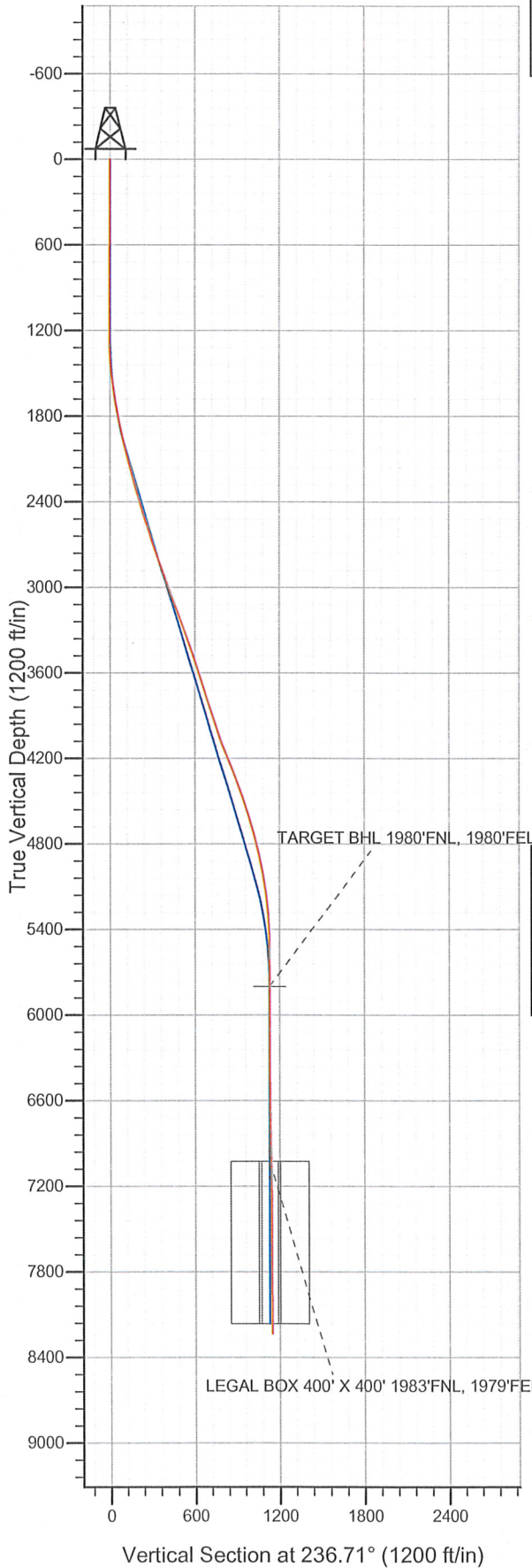
Easting  
3223631.13

Latitude  
40.069510

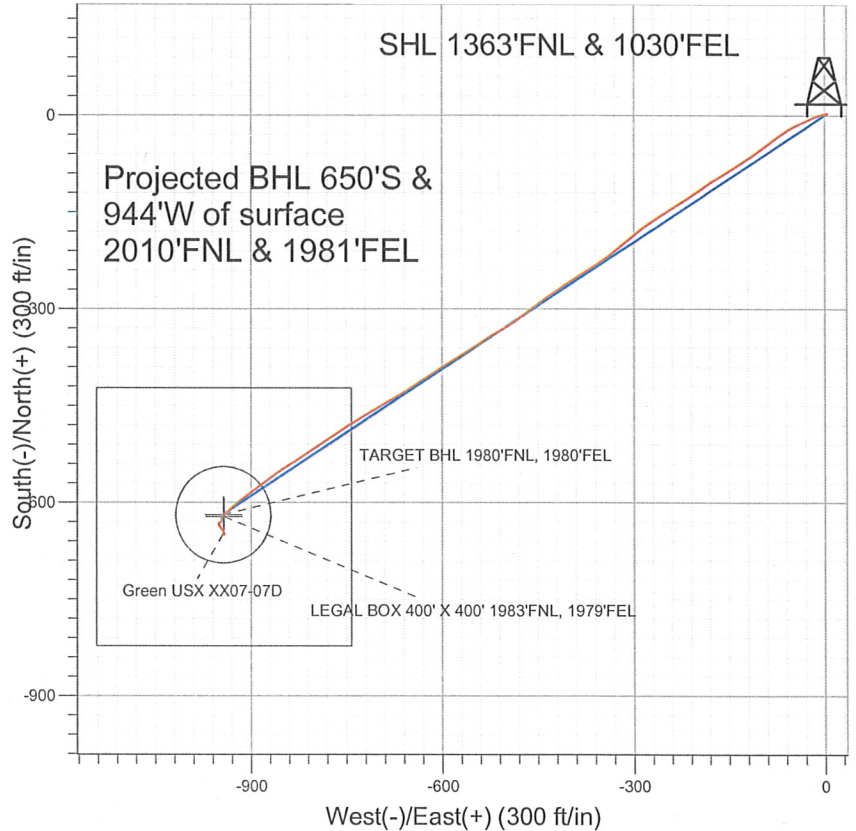
Longitude  
-104.700930

Slot

Original Well Elev WELL @ 4999.0ft (Original Well Elev)



## NOBLE ENERGY INC WELD COUNTY CO



### LEGEND

- Green USX XX07-07D, Wellbore #1, Noble Green USX XX07-07D Plan #2 (7-25-11) V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
8405'MD & 8233'TVD @ 1146'VS  
0.3 deg Inc 270.0 deg AZ

Project: SEC.7-T1N-R65W  
Site: Green USX XX07-07D Pad Sec.7-T1N-R65W  
Well: Green USX XX07-07D  
Plan: Wellbore #1



**Directional**

**NOBLE ENERGY INC WELD  
COUNTY CO**

**SEC.7-T1N-R65W**

**Green USX XX07-07D Pad Sec.7-T1N-R65W**

**Green USX XX07-07D**

**Wellbore #1**

**Survey: Survey #1**

**Standard Survey Report**

**02 September, 2011**





**Company:** NOBLE ENERGY INC WELD COUNTY CO  
**Project:** SEC.7-T1N-R65W  
**Site:** Green USX XX07-07D Pad Sec.7-T1N-R65W  
**Well:** Green USX XX07-07D  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Green USX XX07-07D  
**TVD Reference:** WELL @ 4999.0ft (Original Well Elev)  
**MD Reference:** WELL @ 4999.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Landmark

<b>Project</b>	SEC.7-T1N-R65W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

**Site** Green USX XX07-07D Pad Sec.7-T1N-R65W

<b>Site Position:</b>		<b>Northing:</b>	1,269,175.20 ft	<b>Latitude:</b>	40.069510
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,223,631.13 ft	<b>Longitude:</b>	-104.700930
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b>	0.52 °

<b>Well</b>	Green USX XX07-07D				
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,269,175.19 ft	<b>Latitude:</b> 40.069510
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,223,631.13 ft	<b>Longitude:</b> -104.700930
<b>Position Uncertainty</b>	0.0 ft		<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b> 4,986.0 ft

**Wellbore** Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/25/2011	8.79	66.79	52,951

**Design** Wellbore #1

**Audit Notes:**

<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
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Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	236.71

**Survey Program** Date 9/2/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
1,194.0	8,405.0	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
1,194.0	0.50	61.30	1,194.0	2.5	4.6	-5.2	0.04	0.04	0.00
1,323.0	2.00	265.00	1,323.0	2.6	2.8	-3.8	1.91	1.16	-121.16
1,451.0	5.10	253.90	1,450.7	0.8	-4.9	3.6	2.47	2.42	-8.67
1,579.0	7.90	246.30	1,577.9	-4.3	-18.4	17.7	2.28	2.19	-5.94
1,708.0	10.00	245.80	1,705.3	-12.5	-36.7	37.5	1.63	1.63	-0.39
1,836.0	11.30	238.80	1,831.1	-23.5	-57.6	61.1	1.43	1.02	-5.47
1,965.0	14.30	233.80	1,956.9	-39.5	-81.3	89.6	2.48	2.33	-3.88
2,093.0	14.20	233.40	2,080.9	-58.2	-106.6	121.1	0.11	-0.08	-0.31
2,221.0	14.70	237.40	2,204.9	-76.3	-132.9	153.0	0.87	0.39	3.13
2,350.0	16.40	238.80	2,329.2	-94.5	-162.3	187.5	1.35	1.32	1.09
2,478.0	17.10	235.40	2,451.7	-114.6	-193.2	224.4	0.94	0.55	-2.66
2,607.0	19.30	237.90	2,574.3	-136.7	-226.9	264.7	1.81	1.71	1.94

**Company:** NOBLE ENERGY INC WELD COUNTY CO  
**Project:** SEC.7-T1N-R65W  
**Site:** Green USX XX07-07D Pad Sec.7-T1N-R65W  
**Well:** Green USX XX07-07D  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Green USX XX07-07D  
**TVD Reference:** WELL @ 4999.0ft (Original Well Elev)  
**MD Reference:** WELL @ 4999.0ft (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)
2,735.0	18.30	237.90	2,695.4	-158.6	-261.9	305.9	0.78	-0.78	0.00
2,863.0	19.40	230.50	2,816.6	-182.8	-295.3	347.2	2.05	0.86	-5.78
2,992.0	18.90	230.10	2,938.5	-209.8	-327.8	389.2	0.40	-0.39	-0.31
3,120.0	21.10	238.50	3,058.8	-235.2	-363.4	432.9	2.82	1.72	6.56
3,249.0	21.00	236.20	3,179.1	-260.2	-402.4	479.2	0.65	-0.08	-1.78
3,377.0	20.40	234.60	3,298.9	-285.9	-439.7	524.4	0.64	-0.47	-1.25
3,505.0	18.90	232.60	3,419.4	-311.4	-474.3	567.4	1.28	-1.17	-1.56
3,634.0	17.50	241.00	3,542.0	-333.5	-507.9	607.6	2.30	-1.09	6.51
3,762.0	18.40	236.30	3,663.8	-354.0	-541.5	647.0	1.33	0.70	-3.67
3,891.0	18.50	238.40	3,786.1	-376.0	-575.9	687.8	0.52	0.08	1.63
4,019.0	17.20	237.80	3,908.0	-396.8	-609.2	727.0	1.03	-1.02	-0.47
4,147.0	19.50	236.10	4,029.5	-418.8	-643.0	767.3	1.84	1.80	-1.33
4,276.0	22.50	240.50	4,149.9	-442.9	-682.3	813.5	2.63	2.33	3.41
4,404.0	21.90	239.10	4,268.4	-467.3	-724.1	861.8	0.62	-0.47	-1.09
4,533.0	20.60	236.50	4,388.6	-492.1	-763.7	908.5	1.24	-1.01	-2.02
4,661.0	18.20	236.10	4,509.4	-515.7	-799.1	951.0	1.88	-1.88	-0.31
4,789.0	17.30	238.20	4,631.3	-536.9	-831.8	990.0	0.86	-0.70	1.64
4,918.0	15.00	234.00	4,755.2	-556.8	-861.6	1,025.9	2.00	-1.78	-3.26
5,046.0	13.00	235.10	4,879.4	-574.8	-886.9	1,056.8	1.58	-1.56	0.86
5,175.0	10.00	231.30	5,005.8	-590.1	-907.5	1,082.5	2.40	-2.33	-2.95
5,303.0	7.10	231.80	5,132.3	-601.9	-922.4	1,101.4	2.27	-2.27	0.39
5,431.0	5.40	224.40	5,259.6	-611.1	-932.8	1,115.2	1.47	-1.33	-5.78
5,560.0	2.90	226.40	5,388.2	-617.7	-939.4	1,124.3	1.94	-1.94	1.55
5,688.0	0.20	228.50	5,516.1	-620.1	-941.9	1,127.7	2.11	-2.11	1.64
5,817.0	0.40	241.10	5,645.1	-620.5	-942.5	1,128.4	0.16	0.16	9.77
5,945.0	0.20	282.10	5,773.1	-620.6	-943.1	1,129.0	0.22	-0.16	32.03
5,971.9	0.20	259.52	5,800.0	-620.6	-943.2	1,129.1	0.29	0.01	-84.09
TARGET BHL 1980'FNL, 1980'FEL									
6,073.0	0.40	213.20	5,901.1	-621.0	-943.6	1,129.6	0.29	0.19	-45.79
6,202.0	0.40	240.30	6,030.1	-621.6	-944.2	1,130.4	0.15	0.00	21.01
6,330.0	0.40	36.00	6,158.1	-621.4	-944.3	1,130.5	0.61	0.00	121.64
6,459.0	0.30	33.20	6,287.1	-620.8	-943.9	1,129.7	0.08	-0.08	-2.17
6,587.0	0.60	246.00	6,415.1	-620.8	-944.3	1,130.1	0.68	0.23	-115.00
6,715.0	0.70	223.00	6,543.1	-621.6	-945.5	1,131.5	0.22	0.08	-17.97
6,844.0	1.60	163.00	6,672.1	-623.9	-945.5	1,132.8	1.08	0.70	-46.51
6,972.0	1.90	182.60	6,800.0	-627.8	-945.1	1,134.5	0.52	0.23	15.31
7,101.0	1.10	245.80	6,929.0	-630.4	-946.3	1,137.0	1.33	-0.62	48.99
7,197.8	1.78	242.49	7,025.7	-631.5	-948.5	1,139.4	0.71	0.70	-3.42
TARGET CIRCLE 1980'FNL, 1980'FEL - LEGAL BOX 400' X 400' 1983'FNL, 1979'FEL									
7,229.0	2.00	241.90	7,057.0	-632.0	-949.4	1,140.4	0.71	0.70	-1.88
7,357.0	3.30	145.60	7,184.9	-636.0	-949.3	1,142.6	3.16	1.02	-75.23
7,486.0	2.20	137.50	7,313.7	-640.9	-945.5	1,142.1	0.90	-0.85	-6.28
7,614.0	1.50	158.90	7,441.6	-644.3	-943.2	1,142.1	0.76	-0.55	16.72
7,743.0	1.70	155.70	7,570.6	-647.6	-941.8	1,142.7	0.17	0.16	-2.48
7,871.0	0.50	207.30	7,698.6	-649.9	-941.3	1,143.5	1.13	-0.94	40.31
7,999.0	0.10	344.90	7,826.6	-650.2	-941.6	1,144.0	0.45	-0.31	107.50
8,128.0	0.40	263.20	7,955.6	-650.2	-942.1	1,144.4	0.31	0.23	-63.33
8,256.0	0.50	314.00	8,083.6	-649.9	-942.9	1,144.9	0.31	0.08	39.69
8,355.0	0.40	273.40	8,182.6	-649.5	-943.6	1,145.2	0.33	-0.10	-41.01
8,405.0	0.30	270.00	8,232.6	-649.5	-943.9	1,145.5	0.20	-0.20	-6.80

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Well:	Green USX XX07-07D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Checked By: _____	Approved By: _____	Date: _____
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