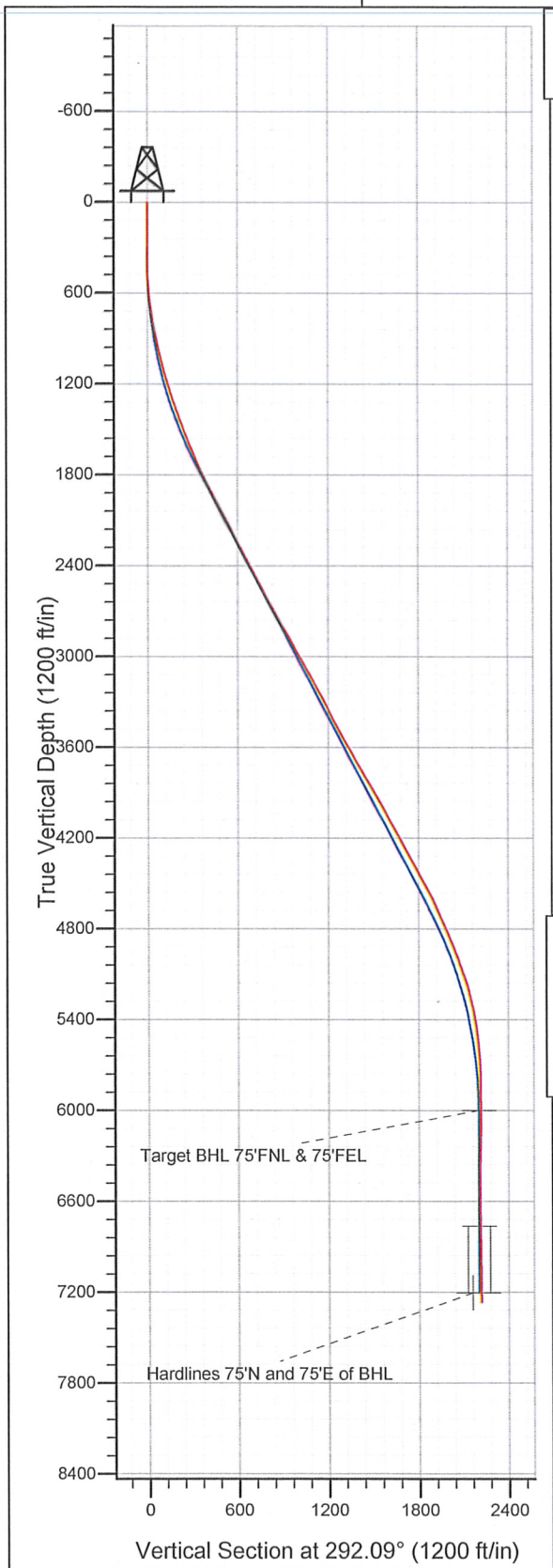
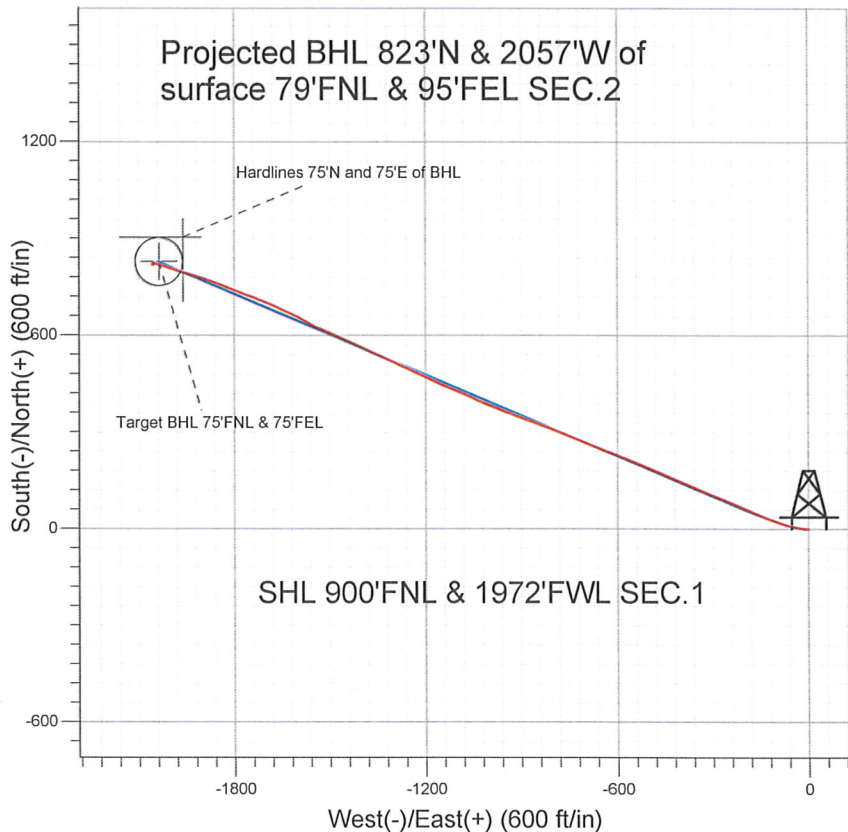


Well Name: **Weidenkeller PC G01-30D**  
 Surface Location: Weidenkeller PC G01-30D Pad Sec.1-T4N-R65W  
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
 Ground Elevation: 4752.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1370111.82 3247008.47 40° 20' 45.492 N 104° 36' 49.680 W  
 Original Well Elev WELL @ 4765.0ft (Original Well Elev)



## NOBLE ENERGY INC WELD COUNTY CO



SHL 900'FNL & 1972'FWL SEC.1

### LEGEND

- Weidenkeller PC G01-30D, Wellbore #1, Noble Weidenkeller PC G01-30D Plan #1 (8-06-10)
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
 7770'MD & 7267'TVD @ 2216' VS  
 0.6 deg Inc 16.6 deg AZ

Project: SEC.1-T4N-R65W  
 Site: Weidenkeller PC G01-30D Pad Sec.1-T4N-R65W  
 Well: Weidenkeller PC G01-30D  
 Plan: Wellbore #1

**Company:** NOBLE ENERGY INC WELD COUNTY CO  
**Project:** SEC.1-T4N-R65W  
**Site:** Weidenkeller PC G01-30D Pad  
 Sec.1-T4N-R65W  
**Well:** Weidenkeller PC G01-30D  
**Wellbore:** Wellbore #1  
**Design:** Wellbore #1

**Local Co-ordinate Reference:** Well Weidenkeller PC G01-30D  
**TVD Reference:** WELL @ 4765.0ft (Original Well Elev)  
**MD Reference:** WELL @ 4765.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** Landmark

<b>Project</b>	SEC.1-T4N-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** Weidenkeller PC G01-30D Pad Sec.1-T4N-R65W

<b>Site Position:</b>	<b>Northing:</b>	1,370,111.83ft	<b>Latitude:</b>	40° 20' 45.492 N
<b>From:</b>	<b>Easting:</b>	3,247,008.47ft	<b>Longitude:</b>	104° 36' 49.680 W
<b>Position Uncertainty:</b>	<b>Slot Radius:</b>	"	<b>Grid Convergence:</b>	0.57 °

**Well** Weidenkeller PC G01-30D

<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,370,111.82 ft	<b>Latitude:</b>	40° 20' 45.492 N
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	3,247,008.47 ft	<b>Longitude:</b>	104° 36' 49.680 W
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	4,752.0 ft

**Wellbore** Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/30/2010	8.89	67.06	53,204

**Design** Wellbore #1

**Audit Notes:**

**Version:** 1.0      **Phase:** ACTUAL      **Tie On Depth:** 0.0

<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	292.09

**Survey Program** Date 3/11/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
337.0	7,770.0	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
337.0	0.30	351.00	337.0	0.9	-0.1	0.5	0.09	0.09	0.00
422.0	1.20	279.10	422.0	1.2	-1.1	1.4	1.34	1.06	-84.59
507.0	2.80	268.30	506.9	1.3	-4.0	4.2	1.93	1.88	-12.71
592.0	5.20	271.10	591.7	1.3	-9.9	9.7	2.83	2.82	3.29
677.0	7.60	277.10	676.2	2.1	-19.4	18.7	2.93	2.82	7.06
697.0	8.10	275.70	696.0	2.4	-22.1	21.4	2.68	2.50	-7.00
772.0	10.00	279.40	770.1	4.0	-33.8	32.8	2.65	2.53	4.93
858.0	11.90	284.20	854.5	7.4	-49.7	48.8	2.45	2.21	5.58
943.0	12.80	285.30	937.5	12.0	-67.3	66.9	1.09	1.06	1.29
1,029.0	14.10	288.20	1,021.2	17.8	-86.4	86.8	1.70	1.51	3.37
1,114.0	15.30	288.20	1,103.4	24.5	-106.9	108.3	1.41	1.41	0.00



Company: NOBLE ENERGY INC WELD COUNTY CO  
 Project: SEC.1-T4N-R65W  
 Site: Weidenkeller PC G01-30D Pad  
 Sec.1-T4N-R65W  
 Well: Weidenkeller PC G01-30D  
 Wellbore: Wellbore #1  
 Design: Wellbore #1

Local Co-ordinate Reference: Well Weidenkeller PC G01-30D  
 TVD Reference: WELL @ 4765.0ft (Original Well Elev)  
 MD Reference: WELL @ 4765.0ft (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)
1,200.0	16.30	292.40	1,186.1	32.7	-128.9	131.7	1.77	1.16	4.88
1,285.0	17.70	292.90	1,267.4	42.3	-151.8	156.6	1.66	1.65	0.59
1,371.0	18.60	294.30	1,349.1	53.0	-176.3	183.3	1.16	1.05	1.63
1,456.0	20.50	292.70	1,429.2	64.3	-202.4	211.8	2.32	2.24	-1.88
1,542.0	22.00	292.50	1,509.4	76.3	-231.2	242.9	1.75	1.74	-0.23
1,627.0	22.40	291.20	1,588.1	88.2	-261.0	275.0	0.75	0.47	-1.53
1,713.0	23.10	291.70	1,667.4	100.4	-292.0	308.3	0.84	0.81	0.58
1,798.0	25.50	293.60	1,744.9	113.9	-324.2	343.3	2.97	2.82	2.24
1,884.0	27.10	292.30	1,822.0	128.7	-359.3	381.4	1.98	1.86	-1.51
1,969.0	27.90	292.50	1,897.4	143.7	-395.6	420.6	0.95	0.94	0.24
2,055.0	28.10	293.60	1,973.3	159.5	-432.8	461.0	0.64	0.23	1.28
2,140.0	28.00	293.40	2,048.3	175.4	-469.4	500.9	0.16	-0.12	-0.24
2,226.0	28.40	292.00	2,124.1	191.1	-506.9	541.6	0.90	0.47	-1.63
2,312.0	27.90	291.70	2,199.9	206.2	-544.6	582.1	0.60	-0.58	-0.35
2,397.0	26.90	292.90	2,275.4	221.1	-580.8	621.3	1.34	-1.18	1.41
2,483.0	26.40	290.90	2,352.3	235.4	-616.5	659.8	1.19	-0.58	-2.33
2,568.0	26.90	291.10	2,428.2	249.1	-652.1	697.9	0.60	0.59	0.24
2,654.0	27.90	291.70	2,504.6	263.6	-689.0	737.5	1.21	1.16	0.70
2,739.0	28.60	293.10	2,579.5	278.9	-726.2	777.7	1.13	0.82	1.65
2,825.0	29.00	291.30	2,654.8	294.5	-764.5	819.2	1.11	0.47	-2.09
2,910.0	29.50	291.30	2,729.0	309.6	-803.2	860.7	0.59	0.59	0.00
2,996.0	29.10	290.60	2,804.0	324.7	-842.5	902.8	0.61	-0.47	-0.81
3,081.0	30.20	290.30	2,877.8	339.4	-881.9	944.8	1.31	1.29	-0.35
3,167.0	27.90	288.50	2,953.0	353.3	-921.3	986.5	2.86	-2.67	-2.09
3,252.0	29.80	291.60	3,027.5	367.3	-959.8	1,027.5	2.84	2.24	3.65
3,338.0	30.00	292.60	3,102.0	383.5	-999.5	1,070.4	0.62	0.23	1.16
3,423.0	28.80	294.70	3,176.1	400.2	-1,037.7	1,112.1	1.86	-1.41	2.47
3,509.0	27.10	292.40	3,252.0	416.3	-1,074.7	1,152.4	2.34	-1.98	-2.67
3,594.0	27.20	292.90	3,327.7	431.3	-1,110.5	1,191.1	0.29	0.12	0.59
3,680.0	27.70	293.80	3,404.0	447.0	-1,146.9	1,230.8	0.76	0.58	1.05
3,765.0	28.70	295.90	3,478.9	463.9	-1,183.3	1,270.9	1.66	1.18	2.47
3,851.0	29.10	295.40	3,554.2	481.8	-1,220.8	1,312.4	0.54	0.47	-0.58
3,936.0	30.00	293.40	3,628.1	499.2	-1,259.0	1,354.2	1.57	1.06	-2.35
4,022.0	29.80	295.60	3,702.7	516.9	-1,298.0	1,397.1	1.30	-0.23	2.56
4,107.0	30.20	295.20	3,776.3	535.2	-1,336.3	1,439.5	0.53	0.47	-0.47
4,193.0	30.00	294.70	3,850.7	553.3	-1,375.5	1,482.6	0.37	-0.23	-0.58
4,278.0	29.50	293.20	3,924.5	570.5	-1,414.0	1,524.7	1.05	-0.59	-1.76
4,364.0	29.80	294.10	3,999.3	587.5	-1,453.0	1,567.3	0.62	0.35	1.05
4,450.0	28.50	293.20	4,074.4	604.4	-1,491.3	1,609.1	1.60	-1.51	-1.05
4,535.0	27.90	293.60	4,149.3	620.3	-1,528.2	1,649.3	0.74	-0.71	0.47
4,621.0	29.30	298.00	4,224.8	638.2	-1,565.2	1,690.3	2.94	1.63	5.12
4,706.0	27.90	297.40	4,299.4	657.2	-1,601.2	1,730.8	1.68	-1.65	-0.71
4,792.0	28.50	295.00	4,375.2	675.1	-1,637.7	1,771.4	1.49	0.70	-2.79
4,877.0	29.40	294.00	4,449.6	692.1	-1,675.1	1,812.5	1.20	1.06	-1.18
4,963.0	29.90	291.40	4,524.3	708.6	-1,714.4	1,855.0	1.60	0.58	-3.02
5,048.0	26.30	289.90	4,599.3	722.7	-1,751.8	1,895.0	4.32	-4.24	-1.76
5,134.0	23.30	291.10	4,677.4	735.3	-1,785.6	1,931.1	3.54	-3.49	1.40
5,219.0	24.80	290.70	4,755.0	747.7	-1,818.0	1,965.7	1.78	1.76	-0.47
5,305.0	23.70	291.60	4,833.4	760.4	-1,850.9	2,001.0	1.35	-1.28	1.05
5,390.0	21.30	289.00	4,911.9	771.7	-1,881.4	2,033.5	3.06	-2.82	-3.06
5,476.0	20.70	285.40	4,992.2	780.8	-1,910.8	2,064.2	1.65	-0.70	-4.19
5,561.0	19.90	288.10	5,071.9	789.3	-1,939.1	2,093.6	1.45	-0.94	3.18
5,647.0	17.20	286.80	5,153.4	797.5	-1,965.2	2,120.8	3.18	-3.14	-1.51

Company: NOBLE ENERGY INC WELD COUNTY CO  
 Project: SEC.1-T4N-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)
5,732.0	14.90	288.20	5,235.1	804.6	-1,987.6	2,144.3	2.74	-2.71	1.65
5,818.0	12.30	287.30	5,318.7	810.8	-2,006.8	2,164.4	3.03	-3.02	-1.05
5,903.0	9.50	286.60	5,402.2	815.5	-2,022.2	2,180.4	3.30	-3.29	-0.82
5,989.0	7.20	286.10	5,487.3	819.0	-2,034.2	2,192.8	2.68	-2.67	-0.58
6,074.0	5.60	287.40	5,571.7	821.7	-2,043.3	2,202.3	1.89	-1.88	1.53
6,160.0	3.10	301.10	5,657.5	824.2	-2,049.2	2,208.8	3.13	-2.91	15.93
6,245.0	2.10	298.40	5,742.4	826.1	-2,052.6	2,212.6	1.18	-1.18	-3.18
6,331.0	0.70	292.20	5,828.4	827.0	-2,054.5	2,214.7	1.64	-1.63	-7.21
6,416.0	0.40	263.30	5,913.3	827.2	-2,055.2	2,215.4	0.47	-0.35	-34.00
6,502.0	0.30	217.30	5,999.3	827.0	-2,055.7	2,215.8	0.34	-0.12	-53.49
6,502.7	0.30	216.71	6,000.0	827.0	-2,055.7	2,215.8	0.65	-0.47	-86.37
Target BHL 75°FNL & 75°FEL									
6,588.0	0.40	111.40	6,085.3	826.7	-2,055.5	2,215.5	0.65	0.12	-123.43
6,673.0	1.10	109.10	6,170.3	826.3	-2,054.5	2,214.4	0.82	0.82	-2.71
6,759.0	1.50	143.80	6,256.3	825.1	-2,053.0	2,212.6	1.00	0.47	40.35
6,844.0	1.30	151.60	6,341.3	823.4	-2,051.9	2,210.9	0.32	-0.24	9.18
6,930.0	0.80	180.00	6,427.3	821.9	-2,051.5	2,210.0	0.82	-0.58	33.02
7,015.0	0.70	218.00	6,512.3	820.9	-2,051.8	2,209.9	0.59	-0.12	44.71
7,101.0	0.60	251.20	6,598.3	820.4	-2,052.5	2,210.4	0.45	-0.12	38.60
7,186.0	0.90	259.20	6,683.3	820.1	-2,053.6	2,211.3	0.37	0.35	9.41
7,267.5	0.81	261.74	6,764.7	819.9	-2,054.8	2,212.3	0.13	-0.12	3.12
Target Circle 75°FNL & 75°FEL									
7,272.0	0.80	261.90	6,769.2	819.9	-2,054.9	2,212.4	0.13	-0.12	3.51
7,357.0	0.70	281.10	6,854.2	819.9	-2,056.0	2,213.4	0.32	-0.12	22.59
7,443.0	0.40	299.60	6,940.2	820.2	-2,056.7	2,214.2	0.40	-0.35	21.51
7,528.0	0.50	336.40	7,025.2	820.7	-2,057.1	2,214.7	0.35	0.12	43.29
7,614.0	0.50	341.60	7,111.2	821.4	-2,057.4	2,215.3	0.05	0.00	6.05
7,708.5	0.57	12.57	7,205.7	822.2	-2,057.4	2,215.6	0.31	0.08	32.77
Hardlines 75°N and 75°E of BHL									
7,724.0	0.60	16.60	7,221.2	822.4	-2,057.4	2,215.6	0.31	0.16	26.02
7,770.0	0.60	16.60	7,267.2	822.8	-2,057.3	2,215.7	0.00	0.00	0.00

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