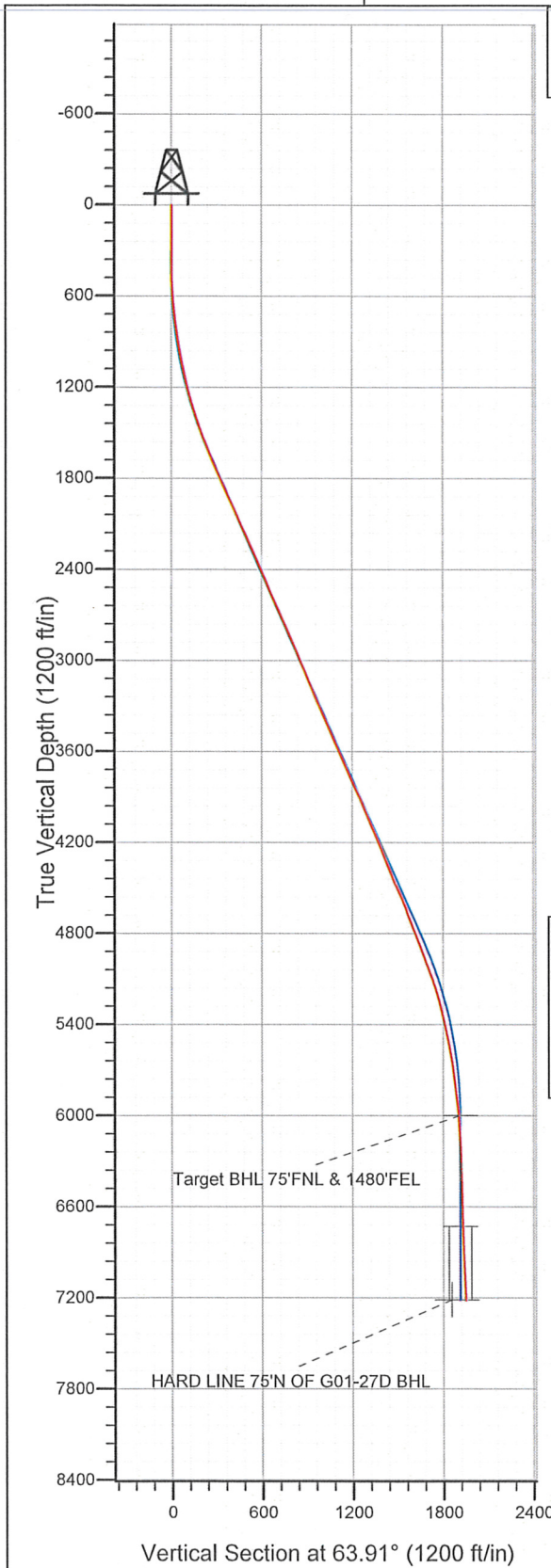
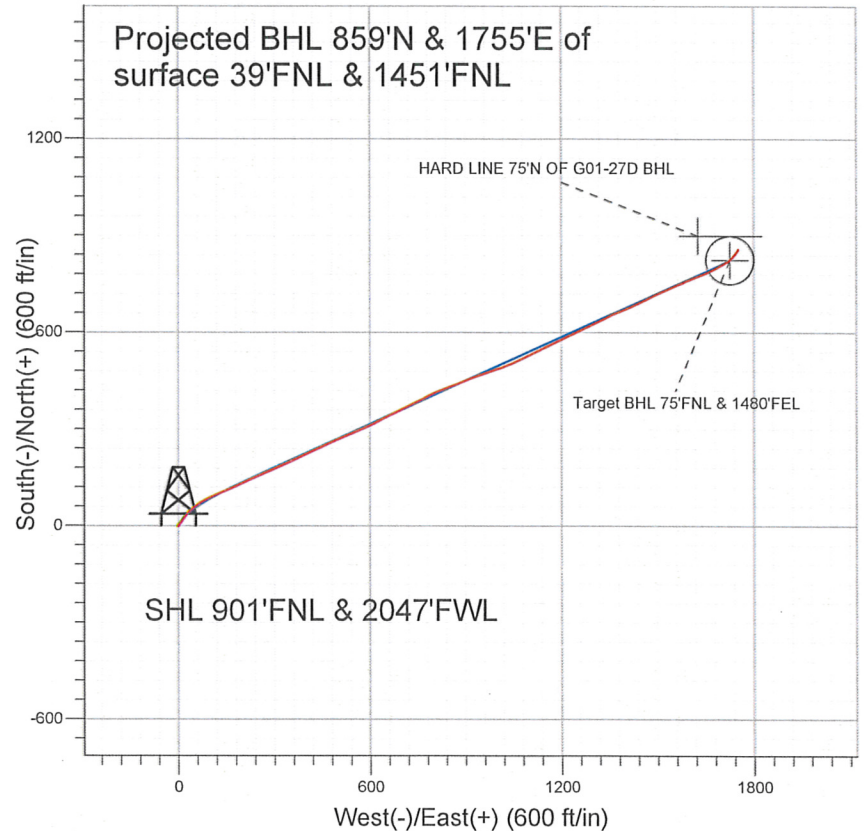


Well Name: **Weidenkeller PC G01-27D**
 Surface Location: Weidenkeller PC G01-30D Pad Sec.1-T4N-R65W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4755.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1370108.93 3247083.76 40° 20' 45.456 N 104° 36' 48.708 W
 Original Well Elev WELL @ 4768.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- + Weidenkeller PC G01-27D, Wellbore #1, Noble Weidenkeller PC G01-27D Plan #1 (8-09-10)
- + Wellbore #1
- + Survey #1

Final Survey Plot

Projected Final Survey -
 7575'MD & 7217'TVD @ 1954' VS
 3.2 deg Inc 31.1 deg AZ

Project: SEC.1-T4N-R65W
 Site: Weidenkeller PC G01-30D Pad Sec.1-T4N-R65W
 Well: Weidenkeller PC G01-27D
 Plan: Wellbore #1

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Weidenkeller PC G01-27D
Project:	SEC.1-T4N-R65W	TVD Reference:	WELL @ 4768.0ft (Original Well Elev)
Site:	Weidenkeller PC G01-30D Pad Sec.1-T4N-R65W	MD Reference:	WELL @ 4768.0ft (Original Well Elev)
Well:	Weidenkeller PC G01-27D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.1-T4N-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	Weidenkeller PC G01-30D Pad Sec.1-T4N-R65W				
Site Position:		Northing:	1,370,111.83ft	Latitude:	40° 20' 45.492 N
From:	Lat/Long	Easting:	3,247,008.47 ft	Longitude:	104° 36' 49.680 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.57 °

Well	Weidenkeller PC G01-27D					
Well Position	+N/-S	0.0 ft	Northing:	1,370,108.93 ft	Latitude:	40° 20' 45.456 N
	+E/-W	0.0 ft	Easting:	3,247,083.76 ft	Longitude:	104° 36' 48.708 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,755.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/31/2010	8.88	67.06	53,203

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	63.91	

Survey Program	Date 2/24/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
334.0	7,575.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

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
334.0	0.20	215.40	334.0	-0.5	-0.3	-0.5	0.06	0.06	0.00
420.0	0.80	40.90	420.0	-0.1	0.0	-0.1	1.16	0.70	-202.91
505.0	2.40	34.70	505.0	1.8	1.4	2.0	1.89	1.88	-7.29
590.0	4.90	37.40	589.8	6.1	4.6	6.8	2.95	2.94	3.18
675.0	7.30	34.70	674.3	13.4	9.9	14.8	2.84	2.82	-3.18
772.0	8.40	33.90	770.4	24.4	17.3	26.3	1.14	1.13	-0.82
858.0	9.20	39.80	855.4	34.9	25.2	38.0	1.40	0.93	6.86
943.0	10.10	46.10	939.2	45.3	35.0	51.3	1.63	1.06	7.41
1,028.0	11.40	50.80	1,022.7	55.8	46.8	66.6	1.84	1.53	5.53
1,114.0	12.70	54.40	1,106.8	66.6	61.1	84.2	1.75	1.51	4.19
1,200.0	13.60	60.40	1,190.5	77.1	77.6	103.6	1.90	1.05	6.98

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 G01-27D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Weidenkeller PC G01-27D
 TVD Reference: WELL @ 4768.0ft (Original Well Elev)
 MD Reference: WELL @ 4768.0ft (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)
1,285.0	15.70	63.40	1,272.8	87.2	96.6	125.1	2.63	2.47	3.53
1,371.0	17.80	67.30	1,355.1	97.5	119.1	149.8	2.77	2.44	4.53
1,456.0	19.80	67.40	1,435.6	108.0	144.4	177.2	2.35	2.35	0.12
1,542.0	21.80	65.00	1,516.0	120.4	172.3	207.7	2.53	2.33	-2.79
1,627.0	21.50	64.80	1,595.0	133.7	200.7	239.0	0.36	-0.35	-0.24
1,713.0	22.50	66.40	1,674.7	147.0	230.0	271.2	1.36	1.16	1.86
1,798.0	24.00	66.20	1,752.8	160.5	260.8	304.8	1.77	1.76	-0.24
1,884.0	24.00	65.70	1,831.4	174.7	292.7	339.7	0.24	0.00	-0.58
1,969.0	24.20	66.70	1,909.0	188.7	324.5	374.4	0.53	0.24	1.18
2,054.0	24.70	65.50	1,986.3	203.0	356.6	409.6	0.83	0.59	-1.41
2,140.0	24.50	65.60	2,064.5	217.8	389.2	445.3	0.24	-0.23	0.12
2,225.0	24.70	63.70	2,141.8	233.0	421.2	480.7	0.96	0.24	-2.24
2,311.0	24.70	64.90	2,220.0	248.5	453.6	516.7	0.58	0.00	1.40
2,396.0	23.80	65.40	2,297.5	263.2	485.2	551.6	1.09	-1.06	0.59
2,482.0	22.90	67.20	2,376.4	276.9	516.4	585.6	1.34	-1.05	2.09
2,567.0	23.10	67.60	2,454.6	289.7	547.1	618.8	0.30	0.24	0.47
2,653.0	23.90	67.50	2,533.5	302.8	578.8	653.0	0.93	0.93	-0.12
2,738.0	24.80	63.80	2,611.0	317.2	610.7	688.0	2.08	1.06	-4.35
2,824.0	24.00	62.60	2,689.3	333.3	642.4	723.5	1.09	-0.93	-1.40
2,909.0	23.80	63.20	2,767.0	348.9	673.1	757.9	0.37	-0.24	0.71
2,995.0	23.60	63.50	2,845.7	364.5	704.0	792.5	0.27	-0.23	0.35
3,081.0	23.90	64.00	2,924.5	379.8	735.0	827.1	0.42	0.35	0.58
3,165.0	21.40	64.30	3,002.0	393.9	764.1	859.5	2.98	-2.98	0.36
3,251.0	23.20	63.50	3,081.5	408.2	793.4	892.1	2.12	2.09	-0.93
3,336.0	22.90	68.00	3,159.8	421.9	823.8	925.4	2.10	-0.35	5.29
3,422.0	23.30	70.00	3,238.9	434.0	855.3	959.0	1.02	0.47	2.33
3,508.0	22.90	68.20	3,318.0	446.0	886.8	992.6	0.94	-0.47	-2.09
3,593.0	23.60	68.80	3,396.1	458.3	918.0	1,026.0	0.87	0.82	0.71
3,679.0	23.70	71.00	3,474.8	470.2	950.4	1,060.3	1.03	0.12	2.56
3,764.0	23.30	72.60	3,552.8	480.8	982.6	1,093.9	0.89	-0.47	1.88
3,850.0	23.70	69.90	3,631.7	491.8	1,015.0	1,127.9	1.34	0.47	-3.14
3,936.0	24.40	65.80	3,710.2	505.0	1,047.5	1,162.8	2.11	0.81	-4.77
4,021.0	24.70	65.00	3,787.5	519.7	1,079.6	1,198.1	0.53	0.35	-0.94
4,106.0	24.90	64.70	3,864.7	534.9	1,111.9	1,233.8	0.28	0.24	-0.35
4,192.0	23.60	63.00	3,943.1	550.4	1,143.6	1,269.1	1.72	-1.51	-1.98
4,278.0	21.80	63.50	4,022.4	565.4	1,173.2	1,302.3	2.11	-2.09	0.58
4,363.0	21.80	64.60	4,101.3	579.2	1,201.6	1,333.9	0.48	0.00	1.29
4,449.0	23.60	64.90	4,180.7	593.3	1,231.6	1,367.0	2.10	2.09	0.35
4,534.0	21.80	65.10	4,259.1	607.2	1,261.3	1,399.8	2.12	-2.12	0.24
4,620.0	22.10	63.80	4,338.9	621.1	1,290.3	1,432.0	0.66	0.35	-1.51
4,706.0	21.70	64.80	4,418.7	635.0	1,319.2	1,464.1	0.64	-0.47	1.16
4,791.0	24.30	63.50	4,496.9	649.5	1,349.1	1,497.3	3.12	3.06	-1.53
4,877.0	23.20	67.20	4,575.6	663.9	1,380.6	1,531.9	2.15	-1.28	4.30
4,963.0	20.70	67.80	4,655.4	676.2	1,410.3	1,563.9	2.92	-2.91	0.70
5,048.0	20.70	64.70	4,734.9	688.3	1,437.7	1,594.0	1.29	0.00	-3.65
5,134.0	21.50	62.90	4,815.1	702.0	1,465.5	1,624.9	1.20	0.93	-2.09
5,219.0	20.20	62.80	4,894.5	715.8	1,492.4	1,655.2	1.53	-1.53	-0.12
5,305.0	20.50	66.30	4,975.2	728.7	1,519.4	1,685.1	1.46	0.35	4.07
5,390.0	21.10	67.80	5,054.6	740.4	1,547.2	1,715.2	0.94	0.71	1.76
5,475.0	18.60	65.20	5,134.6	751.9	1,573.7	1,744.0	3.12	-2.94	-3.06
5,561.0	15.70	67.40	5,216.8	762.1	1,596.9	1,769.3	3.45	-3.37	2.56
5,647.0	13.70	69.30	5,299.9	770.2	1,617.2	1,791.1	2.39	-2.33	2.21
5,732.0	13.10	66.90	5,382.6	777.5	1,635.4	1,810.7	0.96	-0.71	-2.82

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.1-T4N-R65W
 Site: Weidenkeller PC G01-30D Pad
 Sec.1-T4N-R65W
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 Wellbore: Wellbore #1
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Local Co-ordinate Reference: Well Weidenkeller PC G01-27D
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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)
5,818.0	11.70	65.60	5,466.6	784.9	1,652.4	1,829.2	1.66	-1.63	-1.51
5,904.0	10.50	65.00	5,551.0	791.9	1,667.4	1,845.7	1.40	-1.40	-0.70
5,989.0	8.40	64.70	5,634.8	797.8	1,680.0	1,859.7	2.47	-2.47	-0.35
6,075.0	8.10	59.30	5,720.0	803.6	1,690.9	1,872.0	0.97	-0.35	-6.28
6,160.0	7.30	60.60	5,804.2	809.3	1,700.8	1,883.4	0.96	-0.94	1.53
6,246.0	6.60	58.90	5,889.6	814.5	1,709.8	1,893.8	0.85	-0.81	-1.98
6,331.0	5.80	60.30	5,974.1	819.2	1,717.7	1,902.9	0.96	-0.94	1.65
6,357.6	5.29	58.47	6,000.5	820.5	1,719.9	1,905.5	2.03	-1.91	-6.90
Target BHL 75'FNL & 1480'FEL									
6,416.0	4.20	52.90	6,058.7	823.2	1,723.9	1,910.2	2.03	-1.87	-9.53
6,502.0	2.40	41.80	6,144.6	826.4	1,727.6	1,915.0	2.21	-2.09	-12.91
6,587.0	2.30	47.40	6,229.5	828.9	1,730.0	1,918.3	0.29	-0.12	6.59
6,673.0	2.20	46.10	6,315.5	831.2	1,732.5	1,921.5	0.13	-0.12	-1.51
6,758.0	1.50	48.30	6,400.4	833.1	1,734.5	1,924.1	0.83	-0.82	2.59
6,844.0	1.50	44.70	6,486.4	834.6	1,736.1	1,926.3	0.11	0.00	-4.19
6,930.0	1.50	40.10	6,572.4	836.3	1,737.7	1,928.4	0.14	0.00	-5.35
7,015.0	1.70	33.30	6,657.3	838.2	1,739.1	1,930.5	0.32	0.24	-8.00
7,085.0	1.86	34.21	6,727.3	840.0	1,740.3	1,932.4	0.24	0.23	1.30
Target Circle 75'FNL & 1480'FEL									
7,101.0	1.90	34.40	6,743.3	840.4	1,740.6	1,932.8	0.24	0.23	1.17
7,186.0	2.10	38.50	6,828.2	842.8	1,742.3	1,935.5	0.29	0.24	4.82
7,272.0	2.90	40.90	6,914.1	845.7	1,744.7	1,938.9	0.94	0.93	2.79
7,357.0	3.30	40.20	6,999.0	849.2	1,747.7	1,943.1	0.47	0.47	-0.82
7,443.0	3.20	35.30	7,084.9	853.0	1,750.7	1,947.5	0.34	-0.12	-5.70
7,529.0	3.20	31.10	7,170.7	857.0	1,753.3	1,951.6	0.27	0.00	-4.88
7,569.5	3.20	31.10	7,211.2	859.0	1,754.5	1,953.5	0.00	0.00	0.00
HARD LINE 75'N OF G01-27D BHL									
7,575.0	3.20	31.10	7,216.7	859.2	1,754.7	1,953.8	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____