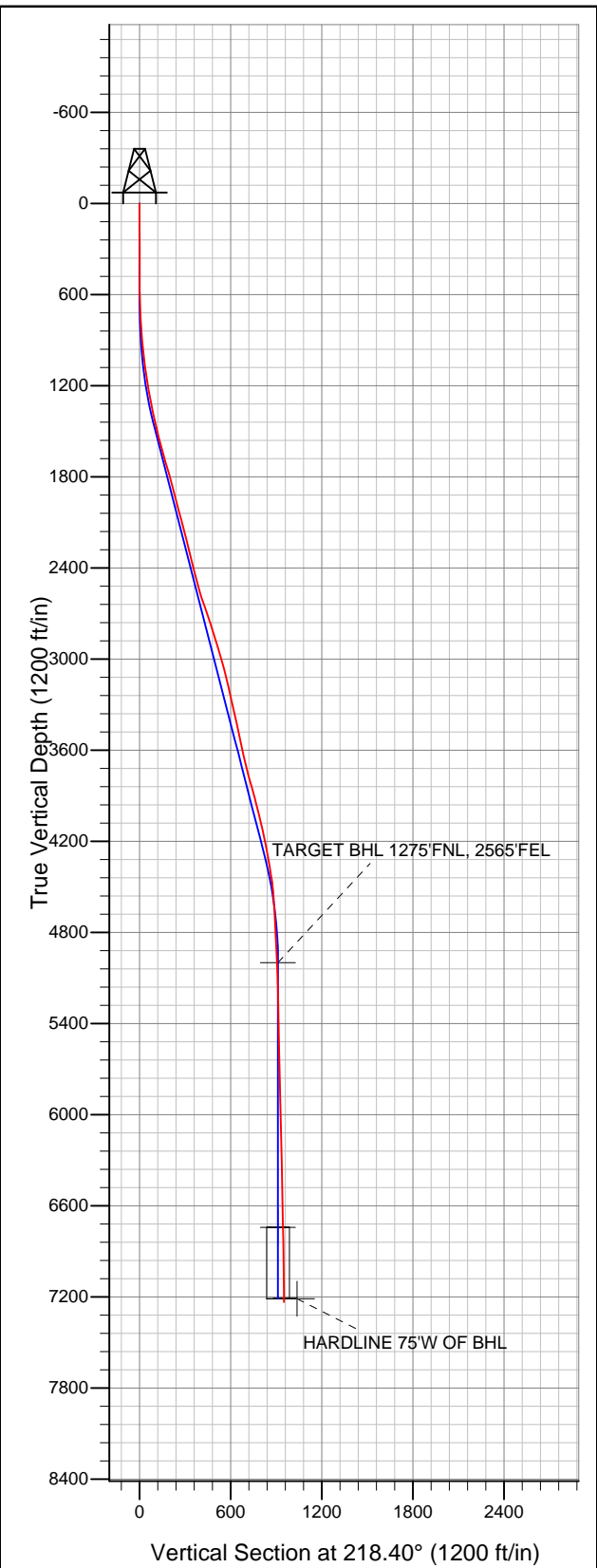


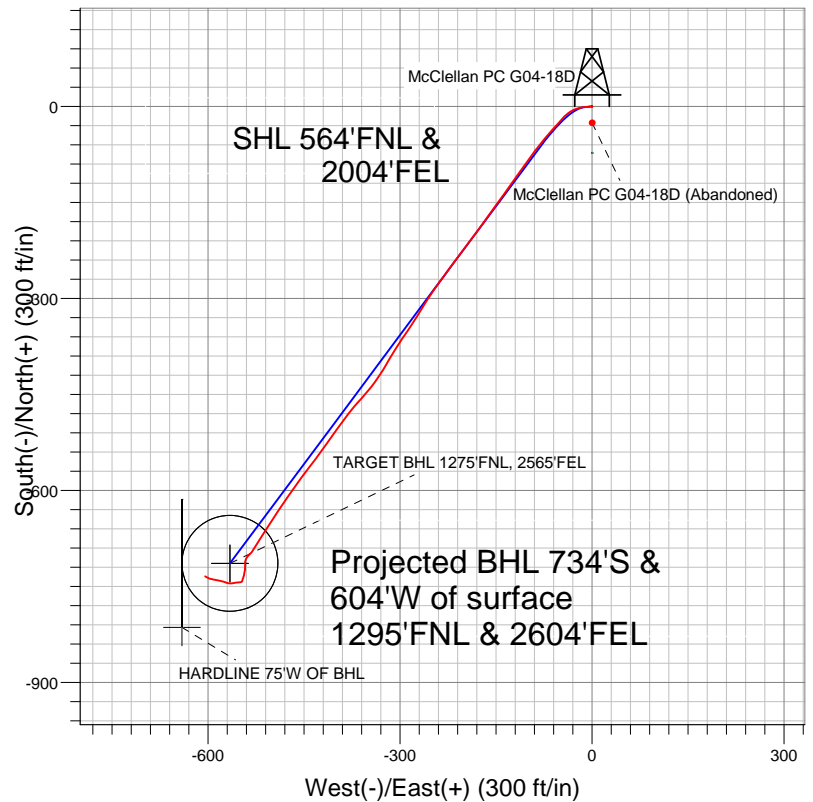


Well Name: McClellan PC G04-18D

Surface Location: McClellan PC G04-18D Pad Sec.4-T4N-R65W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4669.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1370324.36 3232489.45 40.346940 -104.665880
Original Well Elev WELL @ 4682.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- McClellan PC G04-18D (Abandoned), Wellbore #1, Wellbore #1 V0
- McClellan 4-12 (Exist.), Wellbore #1, Design #1 V0
- McClellan PC G04-18D, Wellbore #1, Noble McClellan PC G04-18D Plan #2 (12-20-11) V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
7345'MD & 7235'TVD @ 951'VS
1.7 deg Inc 309.7 deg AZ

Project: SEC.4-T4N-R65W
Site: McClellan PC G04-18D Pad Sec.4-T4N-R65W
Well: McClellan PC G04-18D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.4-T4N-R65W

McClellan PC G04-18D Pad Sec.4-T4N-R65W

McClellan PC G04-18D

Wellbore #1

Design: Wellbore #1

Standard Survey Report

27 December, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well McClellan PC G04-18D
Project:	SEC.4-T4N-R65W	TVD Reference:	WELL @ 4682.0ft (Original Well Elev)
Site:	McClellan PC G04-18D Pad Sec.4-T4N-R65W	MD Reference:	WELL @ 4682.0ft (Original Well Elev)
Well:	McClellan PC G04-18D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.4-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	McClellan PC G04-18D Pad Sec.4-T4N-R65W		
Site Position:		Northing:	1,370,298.87 ft
From:	Lat/Long	Easting:	3,232,489.69 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.346870
		Longitude:	-104.665880
		Grid Convergence:	0.54 °

Well	McClellan PC G04-18D		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.346940
		Longitude:	-104.665880
		Ground Level:	4,669.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/20/2011	8.74	67.01	53,061

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	218.40	

Survey Program	Date	12/27/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
165.0	7,345.0	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	
165.0	0.50	150.00	165.0	-0.6	0.4	0.3	0.30	0.30	0.00	
300.0	0.40	312.00	300.0	-0.8	0.3	0.5	0.66	-0.07	120.00	
490.0	0.40	285.00	490.0	-0.2	-0.8	0.7	0.10	0.00	-14.21	
647.0	1.70	265.70	647.0	-0.2	-3.7	2.5	0.85	0.83	-12.29	
742.0	3.80	264.90	741.8	-0.6	-8.2	5.6	2.21	2.21	-0.84	
824.0	5.40	261.30	823.6	-1.4	-14.7	10.3	1.98	1.95	-4.39	
905.0	6.20	254.70	904.2	-3.2	-22.7	16.6	1.28	0.99	-8.15	
987.0	7.00	242.20	985.6	-6.7	-31.4	24.7	2.00	0.98	-15.24	
1,069.0	7.70	228.80	1,067.0	-12.6	-40.0	34.7	2.25	0.85	-16.34	
1,151.0	8.00	221.40	1,148.2	-20.5	-47.9	45.8	1.28	0.37	-9.02	
1,232.0	9.80	220.40	1,228.2	-30.0	-56.1	58.3	2.23	2.22	-1.23	
1,314.0	11.60	222.10	1,308.8	-41.4	-66.1	73.5	2.23	2.20	2.07	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well McClellan PC G04-18D
Project:	SEC.4-T4N-R65W	TVD Reference:	WELL @ 4682.0ft (Original Well Elev)
Site:	McClellan PC G04-18D Pad Sec.4-T4N-R65W	MD Reference:	WELL @ 4682.0ft (Original Well Elev)
Well:	McClellan PC G04-18D	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)	
1,396.0	13.20	220.20	1,388.9	-54.7	-77.7	91.1	2.01	1.95	-2.32	
1,477.0	12.90	217.20	1,467.8	-69.0	-89.1	109.4	0.91	-0.37	-3.70	
1,559.0	14.20	214.60	1,547.5	-84.5	-100.4	128.6	1.75	1.59	-3.17	
1,641.0	15.60	215.50	1,626.7	-101.8	-112.5	149.7	1.73	1.71	1.10	
1,723.0	15.70	215.10	1,705.7	-119.8	-125.3	171.7	0.18	0.12	-0.49	
1,804.0	15.70	215.30	1,783.7	-137.8	-137.9	193.6	0.07	0.00	0.25	
1,886.0	15.30	217.60	1,862.7	-155.4	-150.9	215.5	0.89	-0.49	2.80	
1,968.0	14.40	214.60	1,942.0	-172.4	-163.3	236.5	1.44	-1.10	-3.66	
2,049.0	14.50	216.30	2,020.4	-188.8	-175.0	256.7	0.54	0.12	2.10	
2,131.0	15.70	217.40	2,099.6	-205.9	-187.9	278.0	1.50	1.46	1.34	
2,213.0	14.50	215.10	2,178.7	-223.1	-200.5	299.4	1.64	-1.46	-2.80	
2,295.0	13.70	216.30	2,258.3	-239.3	-212.1	319.3	1.04	-0.98	1.46	
2,376.0	14.00	219.20	2,336.9	-254.7	-224.0	338.7	0.93	0.37	3.58	
2,458.0	13.90	215.10	2,416.5	-270.4	-236.0	358.5	1.21	-0.12	-5.00	
2,540.0	14.90	214.20	2,495.9	-287.2	-247.5	378.8	1.25	1.22	-1.10	
2,621.0	17.20	212.00	2,573.7	-306.0	-259.7	401.1	2.94	2.84	-2.72	
2,703.0	19.30	211.40	2,651.6	-327.8	-273.2	426.6	2.57	2.56	-0.73	
2,785.0	19.20	215.00	2,729.0	-350.4	-288.0	453.5	1.45	-0.12	4.39	
2,867.0	18.00	213.20	2,806.8	-372.1	-302.7	479.6	1.62	-1.46	-2.20	
2,948.0	15.80	210.00	2,884.3	-392.1	-315.1	503.0	2.95	-2.72	-3.95	
3,030.0	16.70	211.10	2,963.0	-411.9	-326.7	525.7	1.16	1.10	1.34	
3,112.0	16.20	216.90	3,041.6	-431.1	-339.7	548.8	2.09	-0.61	7.07	
3,194.0	14.10	220.20	3,120.8	-447.9	-353.0	570.3	2.77	-2.56	4.02	
3,275.0	12.80	223.20	3,199.5	-461.9	-365.5	589.1	1.82	-1.60	3.70	
3,357.0	11.90	217.10	3,279.7	-475.3	-376.8	606.6	1.93	-1.10	-7.44	
3,439.0	12.80	217.60	3,359.8	-489.3	-387.5	624.1	1.11	1.10	0.61	
3,520.0	12.80	216.00	3,438.7	-503.6	-398.2	642.0	0.44	0.00	-1.98	
3,602.0	11.60	214.20	3,518.9	-517.8	-408.2	659.3	1.54	-1.46	-2.20	
3,684.0	12.20	216.20	3,599.1	-531.6	-418.0	676.2	0.89	0.73	2.44	
3,766.0	13.20	216.20	3,679.1	-546.1	-428.6	694.2	1.22	1.22	0.00	
3,847.0	15.30	218.60	3,757.6	-562.0	-440.7	714.2	2.69	2.59	2.96	
3,929.0	15.80	215.80	3,836.6	-579.5	-454.0	736.1	1.10	0.61	-3.41	
4,011.0	15.20	214.20	3,915.6	-597.4	-466.6	758.0	0.90	-0.73	-1.95	
4,092.0	14.00	216.20	3,994.0	-614.1	-478.3	778.4	1.61	-1.48	2.47	
4,174.0	13.00	212.30	4,073.8	-629.9	-489.1	797.5	1.65	-1.22	-4.76	
4,256.0	12.80	213.50	4,153.7	-645.3	-499.1	815.7	0.41	-0.24	1.46	
4,338.0	10.40	213.40	4,234.0	-659.0	-508.2	832.1	2.93	-2.93	-0.12	
4,419.0	10.80	211.40	4,313.6	-671.6	-516.1	846.9	0.67	0.49	-2.47	
4,501.0	9.30	213.10	4,394.4	-683.7	-523.8	861.2	1.86	-1.83	2.07	
4,583.0	7.30	212.70	4,475.5	-693.7	-530.2	872.9	2.44	-2.44	-0.49	
4,664.0	4.80	226.90	4,556.1	-700.3	-535.4	881.4	3.57	-3.09	17.53	
4,746.0	3.10	217.20	4,637.9	-704.4	-539.3	887.0	2.22	-2.07	-11.83	
4,828.0	2.60	199.30	4,719.8	-707.9	-541.2	891.0	1.24	-0.61	-21.83	
4,910.0	3.80	185.20	4,801.6	-712.4	-542.1	895.0	1.74	1.46	-17.20	
4,991.0	4.00	177.10	4,882.4	-717.9	-542.2	899.4	0.72	0.25	-10.00	
5,073.0	3.10	190.30	4,964.3	-722.9	-542.5	903.5	1.48	-1.10	16.10	
5,108.4	2.97	189.89	4,999.7	-724.8	-542.8	905.2	0.37	-0.37	-1.15	
TARGET BHL 1275'FNL, 2565'FEL										
5,155.0	2.80	189.30	5,046.2	-727.1	-543.2	907.2	0.37	-0.37	-1.27	
5,237.0	1.60	183.70	5,128.1	-730.2	-543.6	909.9	1.48	-1.46	-6.83	
5,318.0	1.60	196.10	5,209.1	-732.4	-544.0	911.9	0.43	0.00	15.31	
5,482.0	1.20	198.20	5,373.0	-736.3	-545.1	915.6	0.25	-0.24	1.28	
5,645.0	1.10	196.80	5,536.0	-739.4	-546.1	918.7	0.06	-0.06	-0.86	
5,809.0	0.80	198.40	5,700.0	-742.0	-546.9	921.2	0.18	-0.18	0.98	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well McClellan PC G04-18D
Project:	SEC.4-T4N-R65W	TVD Reference:	WELL @ 4682.0ft (Original Well Elev)
Site:	McClellan PC G04-18D Pad Sec.4-T4N-R65W	MD Reference:	WELL @ 4682.0ft (Original Well Elev)
Well:	McClellan PC G04-18D	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)	
5,972.0	1.80	261.90	5,862.9	-743.4	-549.8	924.1	0.99	0.61		38.96
6,135.0	2.70	262.20	6,025.8	-744.3	-556.2	928.8	0.55	0.55		0.18
6,299.0	2.50	262.90	6,189.6	-745.3	-563.5	934.1	0.12	-0.12		0.43
6,462.0	2.10	291.10	6,352.5	-744.6	-569.9	937.5	0.73	-0.25		17.30
6,626.0	2.50	285.10	6,516.4	-742.6	-576.1	939.8	0.28	0.24		-3.66
6,789.0	2.90	280.90	6,679.2	-740.9	-583.6	943.1	0.27	0.25		-2.58
6,851.1	2.79	281.08	6,741.3	-740.3	-586.6	944.6	0.18	-0.18		0.28
TARGET CIRCLE 1275'FNL, 2565'FEL										
6,953.0	2.60	281.40	6,843.0	-739.4	-591.3	946.7	0.18	-0.18		0.32
7,116.0	2.20	286.70	7,005.9	-737.8	-597.9	949.6	0.28	-0.25		3.25
7,295.0	1.70	309.70	7,184.8	-735.1	-603.3	950.8	0.51	-0.28		12.85
7,321.6	1.70	309.70	7,211.3	-734.6	-603.9	950.8	0.00	0.00		0.00
HARDLINE 75'W OF BHL										
7,345.0	1.70	309.70	7,234.7	-734.1	-604.4	950.8	0.00	0.00		0.00

Checked By: _____	Approved By: _____	Date: _____
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