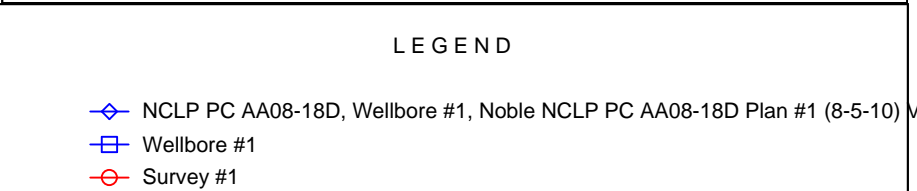
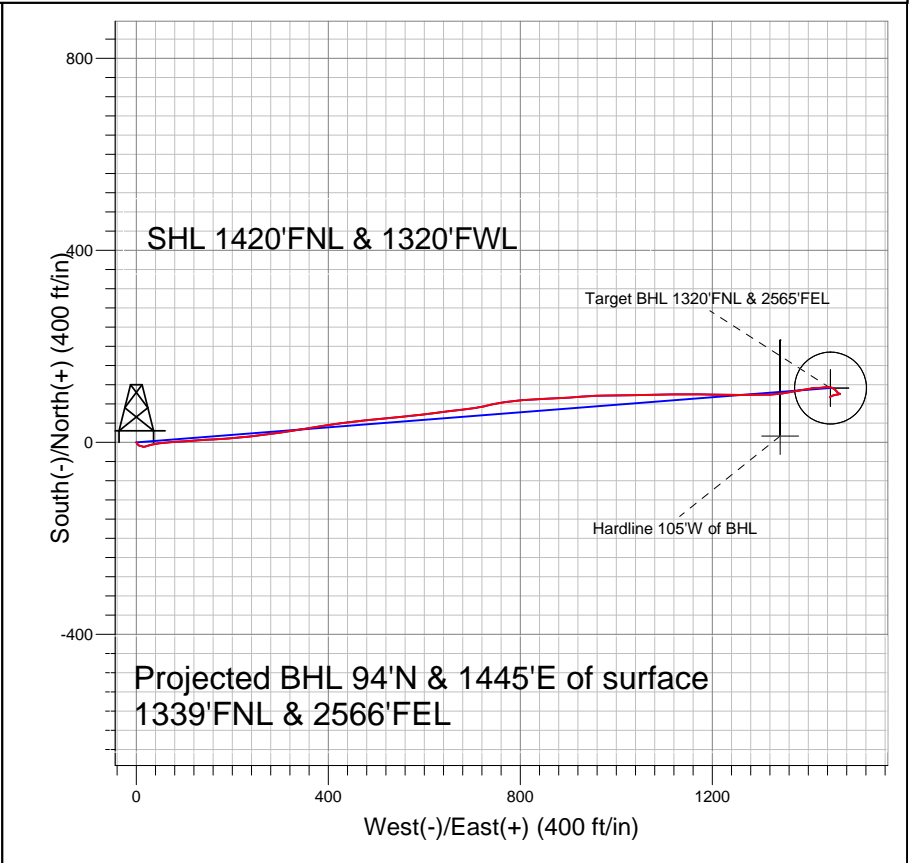


NOBLE ENERGY INC WELD COUNTY CO



Final Survey Plot

Projected Final Survey -
 7195'MD & 6953'TVD @ 1448'VS
 1.3 deg Inc 225.0 deg AZ

Project: SEC.8-T6N-R63W
 Site: NCLP PC AA08-03D Pad Sec.8-T6N-R63W
 Well: NCLP PC AA08-18D
 Plan: Wellbore #1



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.8-T6N-R63W

NCLP PC AA08-03D Pad Sec.8-T6N-R63W

NCLP PC AA08-18D

Wellbore #1

Survey: Survey #1

Standard Survey Report

06 July, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well NCLP PC AA08-18D
Project:	SEC.8-T6N-R63W	TVD Reference:	WELL @ 4716.0ft (Original Well Elev)
Site:	NCLP PC AA08-03D Pad Sec.8-T6N-R63W	MD Reference:	WELL @ 4716.0ft (Original Well Elev)
Well:	NCLP PC AA08-18D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.8-T6N-R63W, 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	NCLP PC AA08-03D Pad Sec.8-T6N-R63W		
Site Position:		Northing:	1,428,358.79 ft
From:	Lat/Long	Easting:	3,287,659.37 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.504640
		Longitude:	-104.465530
		Grid Convergence:	0.67 °

Well	NCLP PC AA08-18D		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.504440
		Longitude:	-104.465530
		Ground Level:	4,703.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/18/2011	8.75	67.19	53,245

Design	Wellbore #1			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	85.53

Survey Program	Date	7/5/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
631.0	7,195.0	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
631.0	1.10	146.70	631.0	-5.1	3.3	2.9	0.17	0.17	0.00
702.0	2.00	120.40	701.9	-6.3	4.8	4.3	1.58	1.27	-37.04
784.0	3.30	98.40	783.8	-7.3	8.3	7.7	1.99	1.59	-26.83
866.0	2.70	120.80	865.7	-8.7	12.3	11.6	1.59	-0.73	27.32
948.0	1.70	85.50	947.7	-9.6	15.2	14.4	2.00	-1.22	-43.05
1,029.0	3.80	72.20	1,028.6	-8.6	19.0	18.2	2.69	2.59	-16.42
1,111.0	5.90	74.00	1,110.3	-6.6	25.6	25.0	2.57	2.56	2.20
1,193.0	7.80	77.90	1,191.7	-4.3	35.1	34.6	2.38	2.32	4.76
1,275.0	9.70	81.40	1,272.7	-2.1	47.4	47.1	2.41	2.32	4.27
1,356.0	11.40	86.30	1,352.4	-0.6	62.1	61.9	2.37	2.10	6.05
1,438.0	13.20	85.20	1,432.5	0.7	79.5	79.3	2.21	2.20	-1.34
1,520.0	15.20	86.70	1,512.0	2.1	99.6	99.4	2.48	2.44	1.83

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well NCLP PC AA08-18D
Project:	SEC.8-T6N-R63W	TVD Reference:	WELL @ 4716.0ft (Original Well Elev)
Site:	NCLP PC AA08-03D Pad Sec.8-T6N-R63W	MD Reference:	WELL @ 4716.0ft (Original Well Elev)
Well:	NCLP PC AA08-18D	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)
1,602.0	16.00	85.80	1,591.0	3.6	121.6	121.5	1.02	0.98	-1.10
1,683.0	16.90	86.10	1,668.6	5.2	144.5	144.4	1.12	1.11	0.37
1,765.0	17.80	86.50	1,746.9	6.8	168.9	168.9	1.11	1.10	0.49
1,847.0	19.30	87.00	1,824.6	8.2	194.9	195.0	1.84	1.83	0.61
1,928.0	19.50	84.10	1,901.0	10.3	221.7	221.9	1.21	0.25	-3.58
2,010.0	19.90	82.80	1,978.2	13.5	249.2	249.5	0.72	0.49	-1.59
2,092.0	19.90	82.20	2,055.3	17.1	276.9	277.3	0.25	0.00	-0.73
2,174.0	20.50	82.00	2,132.3	21.0	304.9	305.6	0.74	0.73	-0.24
2,255.0	20.60	80.90	2,208.2	25.3	333.0	334.0	0.49	0.12	-1.36
2,337.0	19.50	80.00	2,285.2	29.9	360.7	362.0	1.39	-1.34	-1.10
2,419.0	18.80	81.20	2,362.6	34.3	387.3	388.8	0.98	-0.85	1.46
2,501.0	20.00	82.10	2,440.0	38.3	414.2	415.9	1.51	1.46	1.10
2,583.0	20.60	84.50	2,516.9	41.6	442.5	444.4	1.25	0.73	2.93
2,665.0	20.80	83.70	2,593.6	44.5	471.3	473.3	0.42	0.24	-0.98
2,746.0	20.70	82.60	2,669.3	48.0	499.8	502.0	0.50	-0.12	-1.36
2,828.0	20.70	84.80	2,746.1	51.1	528.6	531.0	0.95	0.00	2.68
2,910.0	21.50	85.60	2,822.6	53.6	558.0	560.5	1.04	0.98	0.98
2,992.0	23.30	83.00	2,898.4	56.7	589.1	591.7	2.51	2.20	-3.17
3,073.0	21.30	82.80	2,973.3	60.5	619.6	622.4	2.47	-2.47	-0.25
3,155.0	21.80	82.70	3,049.6	64.3	649.5	652.5	0.61	0.61	-0.12
3,237.0	20.90	82.80	3,125.9	68.1	679.1	682.3	1.10	-1.10	0.12
3,319.0	18.90	81.90	3,203.0	71.8	706.8	710.2	2.47	-2.44	-1.10
3,400.0	16.90	76.50	3,280.1	76.4	731.2	734.9	3.21	-2.47	-6.67
3,482.0	17.00	79.00	3,358.6	81.5	754.5	758.6	0.90	0.12	3.05
3,564.0	18.20	82.60	3,436.7	85.4	779.0	783.3	1.98	1.46	4.39
3,646.0	18.40	86.40	3,514.6	87.9	804.6	809.0	1.48	0.24	4.63
3,727.0	21.10	87.20	3,590.8	89.4	832.0	836.4	3.35	3.33	0.99
3,809.0	21.90	86.70	3,667.1	91.0	862.0	866.4	1.00	0.98	-0.61
3,891.0	22.80	86.80	3,742.9	92.8	893.1	897.6	1.10	1.10	0.12
3,972.0	23.60	85.50	3,817.4	94.9	924.9	929.5	1.17	0.99	-1.60
4,054.0	23.90	87.70	3,892.5	96.9	957.9	962.5	1.14	0.37	2.68
4,136.0	22.40	89.30	3,967.8	97.7	990.1	994.7	1.98	-1.83	1.95
4,218.0	22.90	88.90	4,043.5	98.2	1,021.7	1,026.2	0.64	0.61	-0.49
4,299.0	21.80	89.70	4,118.4	98.6	1,052.5	1,057.0	1.41	-1.36	0.99
4,381.0	21.10	89.10	4,194.8	98.9	1,082.5	1,086.9	0.89	-0.85	-0.73
4,463.0	20.30	88.20	4,271.5	99.6	1,111.5	1,115.8	1.05	-0.98	-1.10
4,545.0	21.30	89.90	4,348.1	100.1	1,140.6	1,144.9	1.42	1.22	2.07
4,626.0	21.80	90.30	4,423.5	100.0	1,170.3	1,174.5	0.64	0.62	0.49
4,708.0	21.60	91.60	4,499.6	99.5	1,200.6	1,204.7	0.63	-0.24	1.59
4,790.0	19.40	91.30	4,576.4	98.8	1,229.3	1,233.3	2.69	-2.68	-0.37
4,872.0	19.20	89.80	4,653.8	98.5	1,256.4	1,260.3	0.65	-0.24	-1.83
4,953.0	19.20	88.50	4,730.3	98.9	1,283.1	1,286.9	0.53	0.00	-1.60
5,035.0	16.30	89.40	4,808.4	99.4	1,308.1	1,311.8	3.55	-3.54	1.10
5,117.0	14.70	86.50	4,887.4	100.1	1,330.0	1,333.7	2.17	-1.95	-3.54
5,199.0	15.10	80.00	4,966.7	102.6	1,350.9	1,354.7	2.09	0.49	-7.93
5,280.0	14.20	79.90	5,045.1	106.2	1,371.0	1,375.1	1.11	-1.11	-0.12
5,362.0	11.70	80.00	5,125.0	109.4	1,389.1	1,393.4	3.05	-3.05	0.12
5,444.0	9.60	81.30	5,205.5	111.9	1,404.1	1,408.5	2.58	-2.56	1.59
5,526.0	7.80	86.20	5,286.6	113.3	1,416.4	1,420.9	2.37	-2.20	5.98
5,607.0	6.50	87.00	5,367.0	113.9	1,426.4	1,431.0	1.61	-1.60	0.99
5,689.0	5.20	87.00	5,448.5	114.3	1,434.8	1,439.3	1.59	-1.59	0.00
5,771.0	4.50	87.70	5,530.2	114.7	1,441.7	1,446.3	0.86	-0.85	0.85
5,852.0	3.60	101.80	5,611.0	114.3	1,447.4	1,451.9	1.65	-1.11	17.41
5,934.0	2.90	122.60	5,692.9	112.6	1,451.6	1,456.0	1.66	-0.85	25.37

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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)
6,016.0	2.90	133.40	5,774.8	110.1	1,454.9	1,459.1	0.67	0.00	13.17
6,040.7	2.99	134.63	5,799.5	109.2	1,455.8	1,459.9	0.44	0.36	4.96
Target BHL 1320'FNL & 2565'FEL									
6,098.0	3.20	137.20	5,856.7	107.0	1,458.0	1,461.9	0.44	0.37	4.49
6,179.0	2.70	138.40	5,937.6	103.9	1,460.8	1,464.4	0.62	-0.62	1.48
6,261.0	2.30	119.70	6,019.5	101.6	1,463.5	1,466.9	1.10	-0.49	-22.80
6,343.0	1.30	80.10	6,101.5	101.0	1,465.8	1,469.2	1.88	-1.22	-48.29
6,425.0	1.00	247.30	6,183.5	100.9	1,466.1	1,469.5	2.79	-0.37	203.90
6,506.0	1.50	252.30	6,264.4	100.3	1,464.4	1,467.8	0.63	0.62	6.17
6,588.0	1.80	265.10	6,346.4	99.8	1,462.1	1,465.4	0.58	0.37	15.61
6,670.0	1.70	261.00	6,428.4	99.5	1,459.6	1,462.9	0.20	-0.12	-5.00
6,752.0	1.80	257.60	6,510.3	99.1	1,457.2	1,460.5	0.18	0.12	-4.15
6,833.0	1.90	258.40	6,591.3	98.5	1,454.6	1,457.9	0.13	0.12	0.99
6,915.0	1.60	252.90	6,673.3	97.9	1,452.2	1,455.4	0.42	-0.37	-6.71
6,997.0	1.90	246.80	6,755.2	97.0	1,449.8	1,453.0	0.43	0.37	-7.44
7,079.0	1.80	241.20	6,837.2	95.9	1,447.5	1,450.5	0.25	-0.12	-6.83
7,150.0	1.40	225.10	6,908.1	94.7	1,445.9	1,448.9	0.84	-0.56	-22.68
7,195.0	1.30	225.00	6,953.1	94.0	1,445.1	1,448.1	0.22	-0.22	-0.22
Hardline 105'W of BHL - Target Circle 1320'FNL & 2565'FEL									

Checked By: _____ Approved By: _____ Date: _____