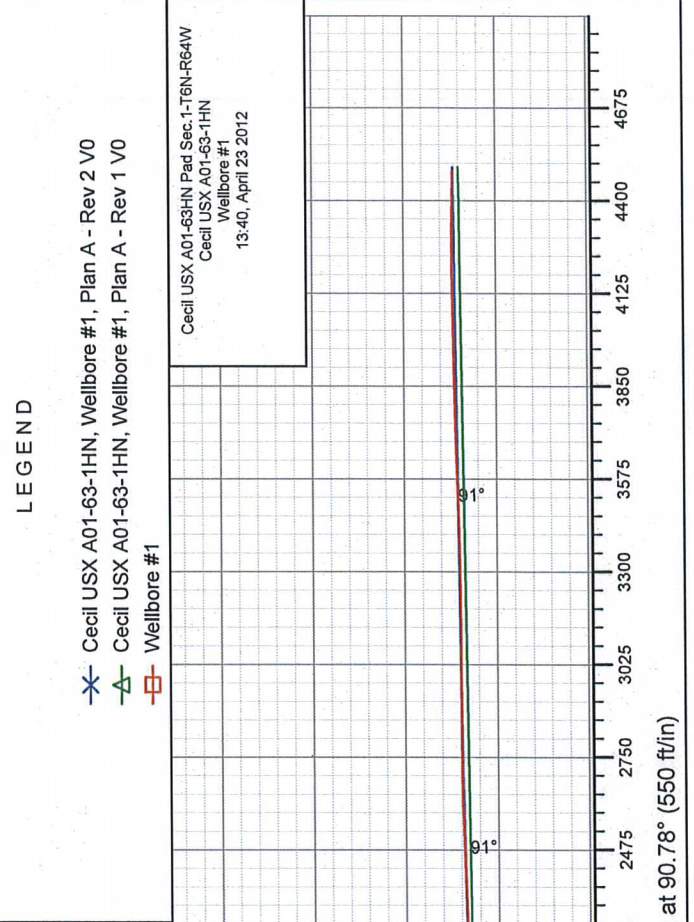
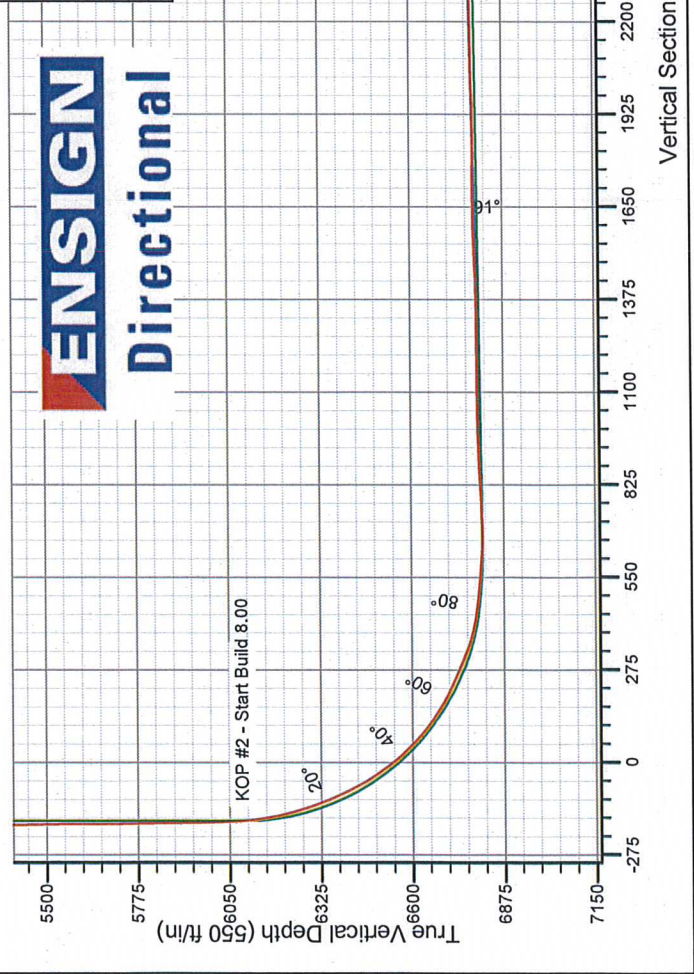
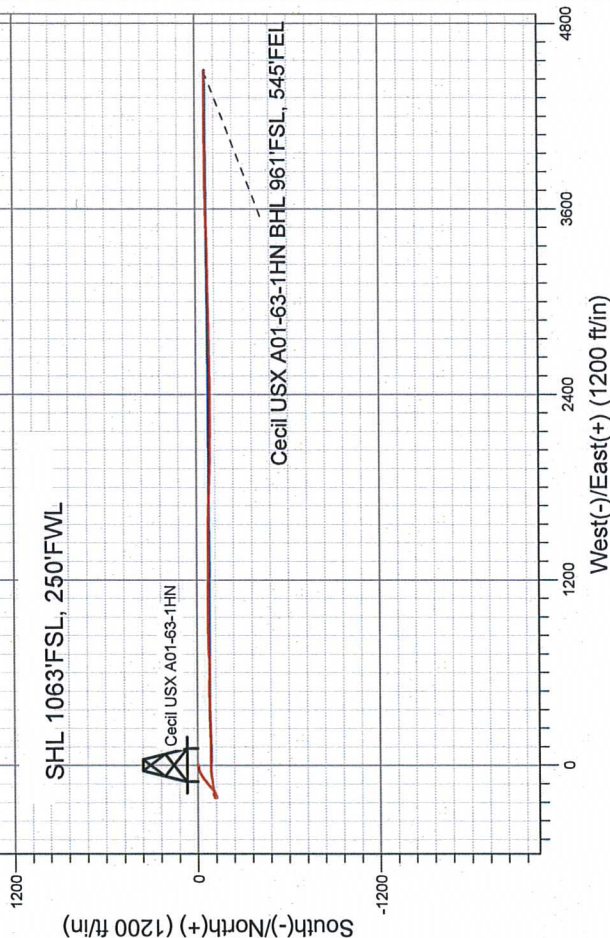


NOBLE ENERGY INC WELD COUNTY CO

Well Name: Cecil USX A01-63-1HN			
Surface Location: Cecil USX A01-63HN Pad Sec.1-T6N-R64W			
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone			
+N/-S +E/-W	Northing	Eastng	Slot
0.0	1430533.24	3276135.67	
	Ground Elevation: 4749.0	Latitude	Longitude
	0.0	40.510970	-104.506880
	Original Well Elev	WELL @ 4762.0ft (Original Well Elev)	

FINAL SURVEY

Projected Bottom Hole Location
11175' MD 6748.24' TVD 61.08' S &
4487.74' E of SHL
89.3 degree Incl @ 90.6 degree AZM



LEGEND

- Cecil USX A01-63-1HN, Wellbore #1, Plan A - Rev 2 V0
- Cecil USX A01-63-1HN, Wellbore #1, Plan A - Rev 1 V0
- Wellbore #1

Cecil USX A01-63HN Pad Sec.1-T6N-R64W
Cecil USX A01-63-1HN
Wellbore #1
13:40, April 23 2012

Vertical Section at 90.78° (550 ft/in)



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.1-T6N-R64W

Cecil USX A01-63HN Pad Sec.1-T6N-R64W

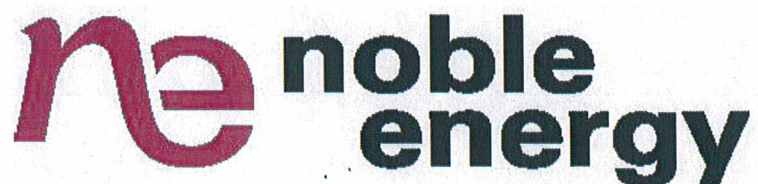
Cecil USX A01-63-1HN

Wellbore #1

Design: Wellbore #1

Standard Survey Report

23 April, 2012



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Cecil USX A01-63-1HN
Project:	SEC.1-T6N-R64W	TVD Reference:	WELL @ 4762.0ft (Original Well Elev)
Site:	Cecil USX A01-63HN Pad Sec.1-T6N-R64W	MD Reference:	WELL @ 4762.0ft (Original Well Elev)
Well:	Cecil USX A01-63-1HN	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.1-T6N-R64W, 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	Cecil USX A01-63HN Pad Sec.1-T6N-R64W		
Site Position:		Northing:	1,430,569.68 ft
From:	Lat/Long	Easting:	3,276,135.26 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.511070
		Longitude:	-104.506880
		Grid Convergence:	0.64 °

Well	Cecil USX A01-63-1HN		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.510970
		Longitude:	-104.506880
		Ground Level:	4,749.0 ft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	4/5/2012	8.58	67.16	53,155

Design	Wellbore #1		
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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	90.78

Survey Program		Date 4/23/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
885.0	11,175.0	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
885.0	0.00	0.00	885.0	0.0	0.0	0.0	0.00	0.00	0.00
943.0	0.60	201.90	943.0	-0.3	-0.1	-0.1	1.03	1.03	0.00
1,005.0	0.80	214.70	1,005.0	-0.9	-0.5	-0.5	0.41	0.32	20.65
1,098.0	0.50	205.60	1,098.0	-1.8	-1.0	-1.0	0.34	-0.32	-9.78
1,197.0	0.40	211.90	1,197.0	-2.5	-1.4	-1.4	0.11	-0.10	6.36
1,292.0	0.40	213.70	1,292.0	-3.1	-1.8	-1.7	0.01	0.00	1.89
1,386.0	0.40	203.30	1,386.0	-3.7	-2.1	-2.0	0.08	0.00	-11.06
1,481.0	0.30	207.00	1,481.0	-4.2	-2.3	-2.3	0.11	-0.11	3.89
1,576.0	0.40	146.50	1,576.0	-4.7	-2.2	-2.2	0.38	0.11	-63.68
1,670.0	0.10	156.20	1,670.0	-5.0	-2.0	-2.0	0.32	-0.32	10.32
1,762.0	0.60	256.50	1,762.0	-5.2	-2.5	-2.4	0.68	0.54	109.02
1,856.0	4.10	275.00	1,855.9	-5.0	-6.3	-6.2	3.76	3.72	19.68

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Cecil USX A01-63-1HN
Project:	SEC.1-T6N-R64W	TVD Reference:	WELL @ 4762.0ft (Original Well Elev)
Site:	Cecil USX A01-63HN Pad Sec.1-T6N-R64W	MD Reference:	WELL @ 4762.0ft (Original Well Elev)
Well:	Cecil USX A01-63-1HN	North Reference:	Grid
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)
1,951.0	6.60	267.80	1,950.5	-4.9	-15.1	-15.1	2.72	2.63	-7.58
2,046.0	8.60	258.80	2,044.6	-6.5	-27.6	-27.5	2.44	2.11	-9.47
2,141.0	9.30	243.90	2,138.5	-11.3	-41.4	-41.3	2.54	0.74	-15.68
2,236.0	9.40	237.40	2,232.2	-18.9	-54.8	-54.6	1.12	0.11	-6.84
2,331.0	11.40	238.10	2,325.7	-28.0	-69.4	-69.0	2.11	2.11	0.74
2,426.0	13.50	234.90	2,418.4	-39.3	-86.4	-85.9	2.33	2.21	-3.37
2,521.0	12.90	232.10	2,510.9	-52.2	-103.8	-103.1	0.92	-0.63	-2.95
2,616.0	13.10	227.00	2,603.5	-66.1	-120.1	-119.2	1.23	0.21	-5.37
2,711.0	12.50	230.70	2,696.1	-79.9	-135.9	-134.8	1.07	-0.63	3.89
2,806.0	11.70	227.50	2,789.0	-93.0	-151.0	-149.7	1.10	-0.84	-3.37
2,901.0	11.00	231.90	2,882.1	-105.1	-165.2	-163.8	1.17	-0.74	4.63
2,996.0	8.60	239.70	2,975.8	-114.2	-178.5	-176.9	2.88	-2.53	8.21
3,091.0	6.90	247.40	3,069.9	-120.0	-189.9	-188.2	2.09	-1.79	8.11
3,186.0	6.10	265.70	3,164.3	-122.6	-200.2	-198.5	2.33	-0.84	19.26
3,281.0	2.10	254.30	3,259.0	-123.4	-206.9	-205.2	4.28	-4.21	-12.00
3,376.0	0.60	247.80	3,354.0	-124.1	-209.0	-207.3	1.58	-1.58	-6.84
3,470.0	1.00	271.70	3,448.0	-124.3	-210.3	-208.6	0.55	0.43	25.43
3,565.0	1.00	343.00	3,543.0	-123.4	-211.4	-209.7	1.23	0.00	75.05
3,660.0	1.00	6.90	3,638.0	-121.8	-211.5	-209.8	0.44	0.00	25.16
3,755.0	1.10	348.50	3,733.0	-120.1	-211.6	-209.9	0.37	0.11	-19.37
3,850.0	2.30	353.90	3,827.9	-117.3	-212.0	-210.4	1.27	1.26	5.68
3,945.0	2.90	26.30	3,922.8	-113.3	-211.1	-209.6	1.64	0.63	34.11
4,040.0	2.60	57.60	4,017.7	-110.0	-208.2	-206.7	1.59	-0.32	32.95
4,135.0	2.60	93.10	4,112.6	-108.9	-204.3	-202.8	1.67	0.00	37.37
4,230.0	0.70	144.00	4,207.6	-109.5	-201.8	-200.3	2.34	-2.00	53.58
4,325.0	0.50	135.60	4,302.6	-110.3	-201.1	-199.6	0.23	-0.21	-8.84
4,420.0	0.60	188.90	4,397.6	-111.1	-200.9	-199.4	0.53	0.11	56.11
4,515.0	0.40	112.20	4,492.6	-111.7	-200.7	-199.2	0.67	-0.21	-80.74
4,610.0	0.90	27.90	4,587.6	-111.1	-200.0	-198.5	1.00	0.53	-88.74
4,705.0	1.10	57.00	4,682.5	-110.0	-198.9	-197.4	0.57	0.21	30.63
4,799.0	1.10	66.30	4,776.5	-109.1	-197.3	-195.8	0.19	0.00	9.89
4,894.0	1.10	55.80	4,871.5	-108.2	-195.8	-194.3	0.21	0.00	-11.05
4,989.0	1.20	64.40	4,966.5	-107.3	-194.1	-192.6	0.21	0.11	9.05
5,084.0	1.10	65.10	5,061.5	-106.5	-192.4	-190.9	0.11	-0.11	0.74
5,179.0	1.00	58.80	5,156.5	-105.7	-190.8	-189.4	0.16	-0.11	-6.63
5,274.0	0.70	34.50	5,251.4	-104.8	-189.8	-188.4	0.49	-0.32	-25.58
5,369.0	0.40	73.40	5,346.4	-104.2	-189.2	-187.7	0.49	-0.32	40.95
5,464.0	1.00	126.80	5,441.4	-104.6	-188.2	-186.7	0.87	0.63	56.21
5,559.0	0.90	92.70	5,536.4	-105.1	-186.8	-185.3	0.59	-0.11	-35.89
5,654.0	0.70	91.70	5,631.4	-105.2	-185.4	-184.0	0.21	-0.21	-1.05
5,749.0	0.60	76.50	5,726.4	-105.1	-184.4	-182.9	0.21	-0.11	-16.00
5,844.0	0.90	94.70	5,821.4	-105.0	-183.2	-181.7	0.40	0.32	19.16
5,939.0	1.10	113.30	5,916.4	-105.5	-181.6	-180.1	0.40	0.21	19.58
6,034.0	1.20	113.30	6,011.4	-106.2	-179.8	-178.4	0.11	0.11	0.00
6,081.0	2.60	91.10	6,058.3	-106.4	-178.3	-176.8	3.31	2.98	-47.23
6,129.0	5.90	81.80	6,106.2	-106.1	-174.8	-173.3	7.00	6.88	-19.38
6,176.0	9.10	79.00	6,152.8	-105.0	-168.7	-167.3	6.85	6.81	-5.96
6,224.0	12.40	79.90	6,199.9	-103.4	-159.9	-158.5	6.88	6.88	1.88
6,271.0	15.20	81.30	6,245.6	-101.6	-148.9	-147.5	6.00	5.96	2.98
6,319.0	18.30	86.00	6,291.5	-100.1	-135.1	-133.8	7.04	6.46	9.79
6,414.0	24.90	79.40	6,379.8	-95.4	-100.5	-99.2	7.39	6.95	-6.95
6,509.0	30.90	84.50	6,463.8	-89.4	-56.6	-55.3	6.79	6.32	5.37
6,604.0	38.40	92.20	6,541.9	-88.2	-2.7	-1.5	9.13	7.89	8.11
6,699.0	47.00	91.10	6,611.7	-90.0	61.6	62.9	9.09	9.05	-1.16

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Cecil USX A01-63-1HN
Project:	SEC.1-T6N-R64W	TVD Reference:	WELL @ 4762.0ft (Original Well Elev)
Site:	Cecil USX A01-63HN Pad Sec.1-T6N-R64W	MD Reference:	WELL @ 4762.0ft (Original Well Elev)
Well:	Cecil USX A01-63-1HN	North Reference:	Grid
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)
6,794.0	55.50	88.10	6,671.1	-89.3	135.6	136.8	9.28	8.95	-3.16
6,841.0	60.70	87.60	6,695.9	-87.8	175.5	176.7	11.10	11.06	-1.06
6,889.0	65.20	86.60	6,717.7	-85.7	218.2	219.3	9.56	9.38	-2.08
6,936.0	66.70	87.10	6,736.9	-83.3	261.0	262.2	3.34	3.19	1.06
6,984.0	67.60	88.70	6,755.5	-81.7	305.2	306.3	3.60	1.88	3.33
7,031.0	72.50	89.60	6,771.5	-81.0	349.4	350.5	10.58	10.43	1.91
7,079.0	76.90	89.00	6,784.2	-80.5	395.7	396.7	9.25	9.17	-1.25
7,155.0	83.20	90.10	6,797.3	-79.9	470.5	471.5	8.41	8.29	1.45
7,205.0	85.00	91.00	6,802.5	-80.4	520.2	521.3	4.02	3.60	1.80
7,222.0	84.60	91.50	6,804.0	-80.7	537.2	538.2	3.76	-2.35	2.94
7,270.0	84.40	91.80	6,808.6	-82.1	584.9	586.0	0.75	-0.42	0.63
7,317.0	86.90	89.60	6,812.2	-82.7	631.8	632.8	7.08	5.32	-4.68
7,365.0	91.20	86.00	6,813.0	-80.8	679.7	680.7	11.68	8.96	-7.50
7,460.0	93.70	87.30	6,808.9	-75.3	774.5	775.4	2.97	2.63	1.37
7,555.0	93.30	89.60	6,803.1	-72.7	869.2	870.1	2.45	-0.42	2.42
7,650.0	91.00	90.60	6,799.6	-72.9	964.2	965.1	2.64	-2.42	1.05
7,745.0	90.50	90.30	6,798.3	-73.6	1,059.2	1,060.1	0.61	-0.53	-0.32
7,840.0	90.50	90.40	6,797.5	-74.2	1,154.1	1,155.0	0.11	0.00	0.11
7,935.0	90.40	90.60	6,796.7	-75.0	1,249.1	1,250.0	0.24	-0.11	0.21
8,030.0	91.00	89.90	6,795.6	-75.5	1,344.1	1,345.0	0.97	0.63	-0.74
8,125.0	91.50	88.80	6,793.5	-74.4	1,439.1	1,440.0	1.27	0.53	-1.16
8,220.0	92.90	90.40	6,789.9	-73.7	1,534.0	1,534.9	2.24	1.47	1.68
8,315.0	90.10	92.20	6,787.4	-75.9	1,629.0	1,629.8	3.50	-2.95	1.89
8,410.0	90.10	92.00	6,787.2	-79.4	1,723.9	1,724.8	0.21	0.00	-0.21
8,505.0	89.70	92.40	6,787.4	-83.0	1,818.8	1,819.8	0.60	-0.42	0.42
8,600.0	90.80	91.10	6,787.0	-85.9	1,913.8	1,914.8	1.79	1.16	-1.37
8,695.0	92.00	91.00	6,784.6	-87.6	2,008.7	2,009.7	1.27	1.26	-0.11
8,790.0	90.10	91.10	6,782.9	-89.4	2,103.7	2,104.7	2.00	-2.00	0.11
8,885.0	91.20	90.80	6,781.8	-91.0	2,198.7	2,199.7	1.20	1.16	-0.32
8,980.0	91.10	90.10	6,779.9	-91.7	2,293.6	2,294.7	0.74	-0.11	-0.74
9,075.0	92.30	89.70	6,777.1	-91.5	2,388.6	2,389.6	1.33	1.26	-0.42
9,170.0	91.90	88.80	6,773.6	-90.3	2,483.5	2,484.5	1.04	-0.42	-0.95
9,265.0	91.70	88.50	6,770.6	-88.1	2,578.5	2,579.4	0.38	-0.21	-0.32
9,360.0	90.60	89.60	6,768.7	-86.5	2,673.4	2,674.3	1.64	-1.16	1.16
9,395.1	90.38	89.19	6,768.4	-86.1	2,708.5	2,709.4	1.32	-0.63	-1.16
Intermediate Tgt									
9,455.0	90.00	88.50	6,768.2	-84.9	2,768.4	2,769.3	1.32	-0.63	-1.16
9,550.0	90.60	88.70	6,767.7	-82.6	2,863.4	2,864.2	0.67	0.63	0.21
9,645.0	90.80	88.50	6,766.6	-80.3	2,958.3	2,959.2	0.30	0.21	-0.21
9,740.0	89.50	89.70	6,766.3	-78.8	3,053.3	3,054.1	1.86	-1.37	1.26
9,835.0	90.40	89.00	6,766.4	-77.7	3,148.3	3,149.1	1.20	0.95	-0.74
9,930.0	90.50	89.20	6,765.7	-76.2	3,243.3	3,244.0	0.24	0.11	0.21
10,024.0	90.70	89.20	6,764.7	-74.9	3,337.3	3,338.0	0.21	0.21	0.00
10,119.0	91.50	88.50	6,762.8	-73.0	3,432.2	3,432.9	1.12	0.84	-0.74
10,214.0	92.10	88.10	6,759.9	-70.2	3,527.2	3,527.8	0.76	0.63	-0.42
10,309.0	91.80	88.10	6,756.6	-67.0	3,622.0	3,622.6	0.32	-0.32	0.00
10,404.0	91.60	89.20	6,753.8	-64.8	3,717.0	3,717.5	1.18	-0.21	1.16
10,499.0	91.00	89.90	6,751.7	-64.0	3,811.9	3,812.5	0.97	-0.63	0.74
10,594.0	91.00	89.60	6,750.0	-63.6	3,906.9	3,907.4	0.32	0.00	-0.32
10,689.0	91.40	88.50	6,748.0	-62.0	4,001.9	4,002.4	1.23	0.42	-1.16
10,784.0	90.70	88.80	6,746.3	-59.8	4,096.9	4,097.3	0.80	-0.74	0.32
10,879.0	91.30	89.90	6,744.6	-58.7	4,191.8	4,192.2	1.32	0.63	1.16
10,973.0	88.80	90.60	6,744.5	-59.1	4,285.8	4,286.2	2.76	-2.66	0.74
11,068.0	89.00	90.40	6,746.3	-60.0	4,380.8	4,381.2	0.30	0.21	-0.21

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Cecil USX A01-63-1HN
Project:	SEC.1-T6N-R64W	TVD Reference:	WELL @ 4762.0ft (Original Well Elev)
Site:	Cecil USX A01-63HN Pad Sec.1-T6N-R64W	MD Reference:	WELL @ 4762.0ft (Original Well Elev)
Well:	Cecil USX A01-63-1HN	North Reference:	Grid
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)
11,123.0	89.30	90.60	6,747.2	-60.5	4,435.8	4,436.2	0.66	0.55	0.36
11,175.0	89.30	90.60	6,747.8	-61.0	4,487.8	4,488.2	0.00	0.00	0.00
Cecil USX A01-63-1HN BHL 960'FSL, 535'FEL - Cecil USX A01-63-1HN BHL 960'FSL & 535'FEL									

Checked By: _____ Approved By: _____ Date: _____