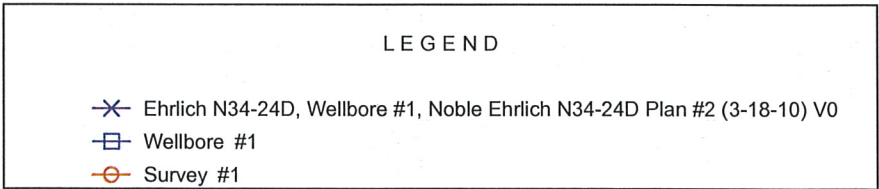
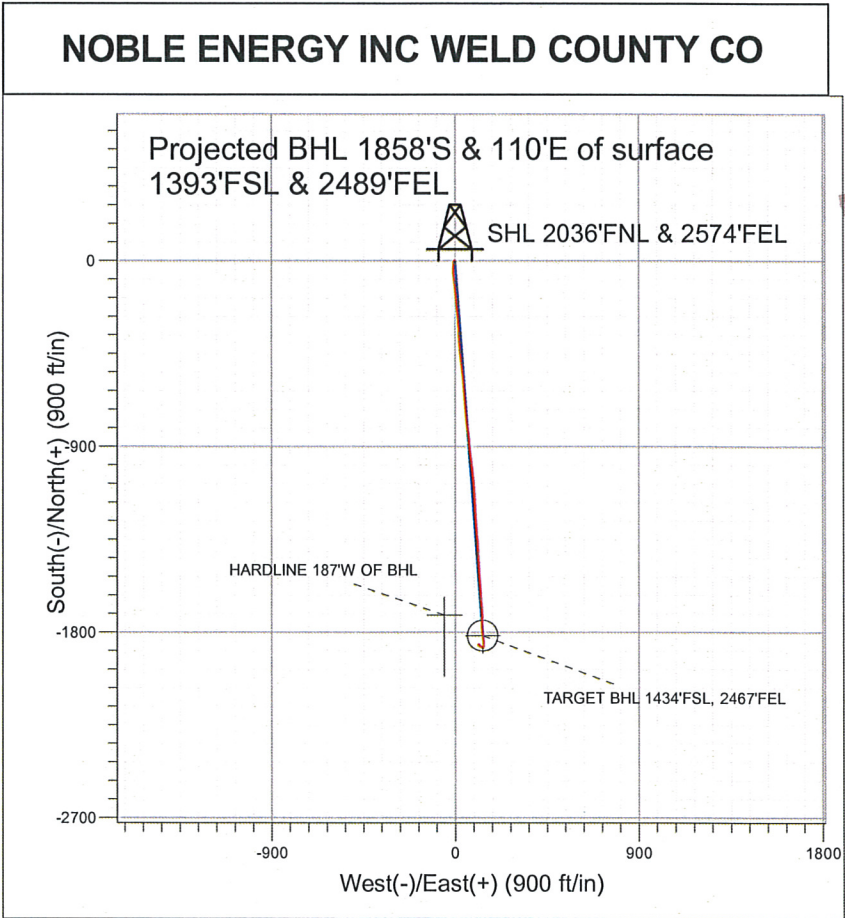
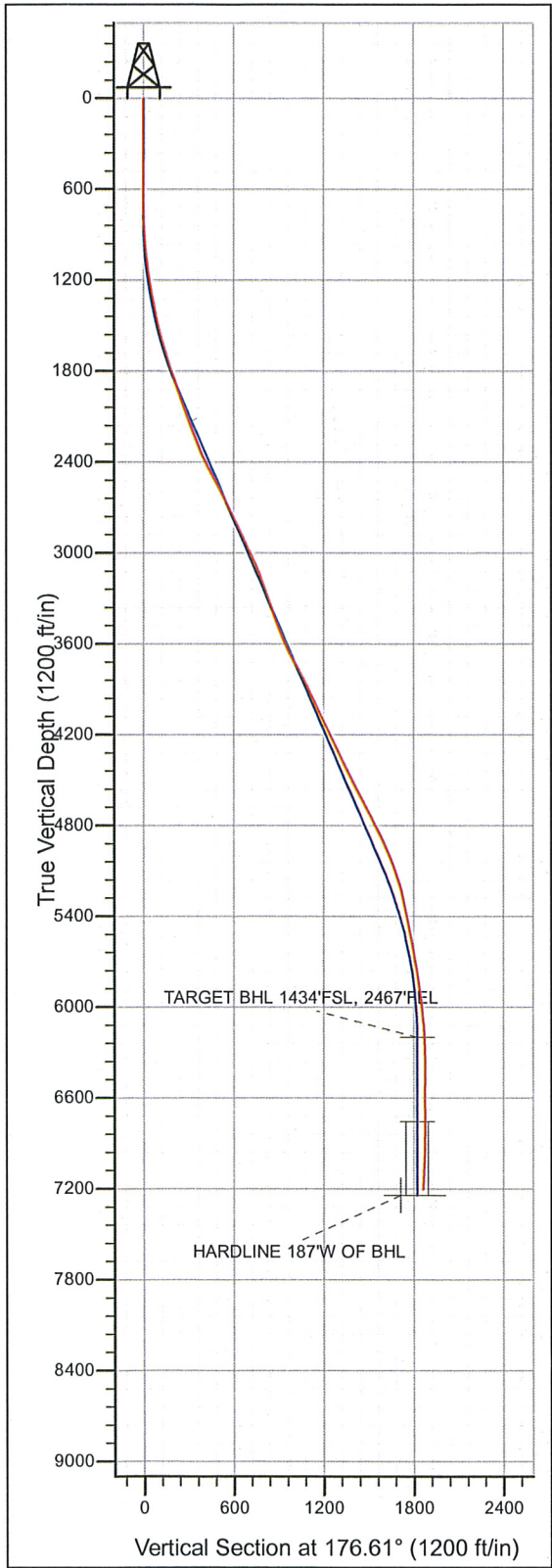


Well Name: Ehrlich N34-24D					
Surface Location: Ehrlich N34-24D Pad Sec.34-T5N-R67W					
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone					
Ground Elevation: 4866.0					
+N/-S+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1373805.82	3173055.51	40° 21' 28.206 N	104° 52' 44.472 W
Original Well Elev WELL @ 4879.0ft (Original Well Elev)					



Final Survey Plot

Projected Final Survey -
7571'MD & 7203'TVD @ 1861.5' VS
4.8 deg Inc 309.8 deg AZ

Project: SEC.34-T5N-R67W
Site: Ehrlich N34-24D Pad Sec.34-T5N-R67W
Well: Ehrlich N34-24D
Plan: Wellbore #1

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.34-T5N-R67W
 Site: Ehrlich N34-24D Pad Sec.34-T5N-R67W
 Well: Ehrlich N34-24D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Ehrlich N34-24D
 TVD Reference: WELL @ 4879.0ft (Original Well Elev)
 MD Reference: WELL @ 4879.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: EDM den0-adp01 Server Data

Project SEC.34-T5N-R67W, Weld County, Colorado

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: Colorado Northern Zone

System Datum: Mean Sea Level
 Using geodetic scale factor

Site Ehrlich N34-24D Pad Sec.34-T5N-R67W

Site Position:
 From: Lat/Long
 Position Uncertainty: 0.0 ft
Northing: 1,373,805.83 ft
Easting: 3,173,055.51 ft
Slot Radius: "
Latitude: 40° 21' 28.206 N
Longitude: 104° 52' 44.472 W
Grid Convergence: 0.40 °

Well Ehrlich N34-24D

Well Position +N/-S 0.0 ft **Northing:** 1,373,805.82 ft **Latitude:** 40° 21' 28.206 N
 +E/-W 0.0 ft **Easting:** 3,173,055.51 ft **Longitude:** 104° 52' 44.472 W
Position Uncertainty 0.0 ft **Wellhead Elevation:** ft **Ground Level:** 4,866.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/11/2009	9.16	67.07	53,327
	IGRF200510	12/31/2009	9.08	67.06	53,269

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	176.61

Survey Program Date 4/30/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
642.0	7,571.0	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
642.0	0.70	304.20	642.0	2.2	-3.2	-2.4	0.11	0.11	0.00
728.0	1.40	212.40	728.0	1.6	-4.2	-1.9	1.84	0.81	-106.74
813.0	2.60	201.20	812.9	-1.1	-5.5	0.7	1.48	1.41	-13.18
899.0	4.00	188.50	898.8	-5.8	-6.6	5.4	1.83	1.63	-14.77
984.0	5.50	186.00	983.5	-12.8	-7.5	12.4	1.78	1.76	-2.94
1,070.0	6.70	185.80	1,069.0	-21.9	-8.4	21.4	1.40	1.40	-0.23
1,155.0	8.60	182.40	1,153.2	-33.2	-9.2	32.6	2.30	2.24	-4.00
1,241.0	9.60	179.60	1,238.2	-46.8	-9.4	46.2	1.27	1.16	-3.26
1,326.0	10.10	170.80	1,321.9	-61.2	-8.2	60.7	1.86	0.59	-10.35
1,412.0	11.90	171.60	1,406.3	-77.5	-5.7	77.0	2.10	2.09	0.93
1,497.0	13.60	174.10	1,489.2	-96.1	-3.4	95.7	2.10	2.00	2.94

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.34-T5N-R67W
 Site: Ehrlich N34-24D Pad Sec.34-T5N-R67W
 Well: Ehrlich N34-24D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Ehrlich N34-24D
 TVD Reference: WELL @ 4879.0ft (Original Well Elev)
 MD Reference: WELL @ 4879.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: EDM den0-adp01 Server Data

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)
1,583.0	14.80	174.60	1,572.6	-117.1	-1.3	116.8	1.40	1.40	0.58
1,668.0	16.10	175.20	1,654.5	-139.6	0.7	139.4	1.54	1.53	0.71
1,754.0	17.70	175.80	1,736.8	-164.5	2.7	164.4	1.87	1.86	0.70
1,839.0	18.00	174.20	1,817.7	-190.5	4.9	190.5	0.68	0.35	-1.88
1,924.0	20.10	173.40	1,898.1	-218.1	7.9	218.2	2.49	2.47	-0.94
2,010.0	20.50	173.40	1,978.7	-247.7	11.4	248.0	0.47	0.47	0.00
2,095.0	19.60	175.10	2,058.6	-276.7	14.3	277.1	1.26	-1.06	2.00
2,181.0	19.70	177.90	2,139.6	-305.6	16.1	306.0	1.10	0.12	3.26
2,266.0	20.80	179.00	2,219.3	-335.0	16.8	335.4	1.37	1.29	1.29
2,352.0	22.20	176.60	2,299.3	-366.5	18.1	366.9	1.92	1.63	-2.79
2,437.0	26.10	176.20	2,376.9	-401.2	20.3	401.7	4.59	4.59	-0.47
2,523.0	28.20	174.80	2,453.4	-440.3	23.4	440.9	2.55	2.44	-1.63
2,608.0	28.00	173.90	2,528.4	-480.1	27.3	480.9	0.55	-0.24	-1.06
2,694.0	26.70	172.70	2,604.7	-519.4	31.9	520.3	1.64	-1.51	-1.40
2,779.0	25.10	173.50	2,681.2	-556.2	36.4	557.4	1.93	-1.88	0.94
2,865.0	26.50	174.80	2,758.6	-593.4	40.2	594.8	1.76	1.63	1.51
2,950.0	26.70	175.50	2,834.6	-631.4	43.4	632.8	0.44	0.24	0.82
3,036.0	25.70	175.10	2,911.8	-669.2	46.5	670.8	1.18	-1.16	-0.47
3,121.0	24.60	175.40	2,988.7	-705.2	49.5	706.9	1.30	-1.29	0.35
3,207.0	24.40	176.00	3,067.0	-740.8	52.2	742.6	0.37	-0.23	0.70
3,292.0	21.50	175.30	3,145.3	-773.8	54.7	775.7	3.43	-3.41	-0.82
3,378.0	20.20	173.70	3,225.6	-804.3	57.6	806.3	1.65	-1.51	-1.86
3,463.0	18.50	172.60	3,305.8	-832.2	60.9	834.4	2.05	-2.00	-1.29
3,549.0	19.40	173.30	3,387.2	-860.0	64.4	862.3	1.08	1.05	0.81
3,634.0	20.50	173.70	3,467.1	-888.8	67.6	891.2	1.30	1.29	0.47
3,720.0	23.20	174.20	3,546.9	-920.6	71.0	923.2	3.15	3.14	0.58
3,805.0	25.50	172.60	3,624.3	-955.4	75.1	958.2	2.81	2.71	-1.88
3,891.0	28.40	172.70	3,701.0	-994.1	80.0	997.1	3.37	3.37	0.12
3,976.0	28.90	174.10	3,775.6	-1,034.5	84.7	1,037.7	0.98	0.59	1.65
4,062.0	26.90	174.70	3,851.6	-1,074.6	88.7	1,078.0	2.35	-2.33	0.70
4,147.0	24.10	174.80	3,928.3	-1,111.0	92.0	1,114.5	3.29	-3.29	0.12
4,233.0	24.80	177.80	4,006.6	-1,146.5	94.3	1,150.1	1.66	0.81	3.49
4,318.0	26.00	178.30	4,083.3	-1,183.0	95.5	1,186.6	1.43	1.41	0.59
4,403.0	25.40	177.20	4,159.9	-1,219.8	97.0	1,223.4	0.90	-0.71	-1.29
4,489.0	26.50	176.50	4,237.3	-1,257.4	99.0	1,261.0	1.33	1.28	-0.81
4,575.0	26.30	175.00	4,314.3	-1,295.5	101.9	1,299.3	0.81	-0.23	-1.74
4,660.0	25.30	174.70	4,390.8	-1,332.4	105.2	1,336.2	1.19	-1.18	-0.35
4,746.0	27.00	176.30	4,468.0	-1,370.1	108.1	1,374.1	2.14	1.98	1.86
4,831.0	25.60	176.60	4,544.2	-1,407.7	110.5	1,411.8	1.65	-1.65	0.35
4,917.0	29.00	177.40	4,620.6	-1,447.1	112.5	1,451.2	3.98	3.95	0.93
5,002.0	27.60	176.90	4,695.5	-1,487.4	114.5	1,491.5	1.67	-1.65	-0.59
5,087.0	28.00	177.60	4,770.6	-1,527.0	116.4	1,531.2	0.61	0.47	0.82
5,173.0	25.80	177.10	4,847.3	-1,565.8	118.2	1,570.1	2.57	-2.56	-0.58
5,258.0	24.00	175.90	4,924.4	-1,601.5	120.4	1,605.9	2.20	-2.12	-1.41
5,344.0	22.90	175.00	5,003.3	-1,635.6	123.1	1,640.1	1.35	-1.28	-1.05
5,429.0	19.40	173.20	5,082.6	-1,666.2	126.2	1,670.7	4.19	-4.12	-2.12
5,515.0	18.00	176.70	5,164.1	-1,693.6	128.7	1,698.2	2.09	-1.63	4.07
5,600.0	14.20	176.70	5,245.7	-1,717.1	130.0	1,721.8	4.47	-4.47	0.00
5,686.0	11.60	182.90	5,329.5	-1,736.3	130.2	1,741.0	3.42	-3.02	7.21
5,771.0	12.10	184.60	5,412.7	-1,753.7	129.1	1,758.3	0.72	0.59	2.00
5,857.0	10.00	179.10	5,497.1	-1,770.2	128.4	1,774.7	2.73	-2.44	-6.40
5,942.0	11.00	175.90	5,580.7	-1,785.6	129.1	1,790.1	1.36	1.18	-3.76
6,028.0	10.50	172.40	5,665.2	-1,801.6	130.8	1,806.2	0.96	-0.58	-4.07
6,113.0	9.30	171.70	5,748.9	-1,816.1	132.8	1,820.7	1.42	-1.41	-0.82

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.34-T5N-R67W
 Site: Ehrlich N34-24D Pad Sec.34-T5N-R67W
 Well: Ehrlich N34-24D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well Ehrlich N34-24D
 TVD Reference: WELL @ 4879.0ft (Original Well Elev)
 MD Reference: WELL @ 4879.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: EDM den0-adp01 Server Data

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)
6,199.0	8.70	170.60	5,833.9	-1,829.4	134.8	1,834.1	0.73	-0.70	-1.28
6,284.0	7.10	175.10	5,918.1	-1,840.9	136.3	1,845.8	2.02	-1.88	5.29
6,370.0	5.80	180.30	6,003.5	-1,850.6	136.8	1,855.4	1.66	-1.51	6.05
6,455.0	5.00	190.70	6,088.1	-1,858.5	136.1	1,863.3	1.48	-0.94	12.24
6,540.0	3.60	170.70	6,172.9	-1,864.8	135.8	1,869.6	2.39	-1.65	-23.53
6,564.7	3.19	169.90	6,197.5	-1,866.2	136.1	1,871.0	1.66	-1.65	-3.24
TARGET BHL 1434'FSL, 2467'FEL									
6,625.0	2.20	166.70	6,257.8	-1,869.0	136.6	1,873.8	1.66	-1.65	-5.30
6,711.0	1.50	209.30	6,343.7	-1,871.6	136.4	1,876.4	1.74	-0.81	49.53
6,796.0	1.40	294.90	6,428.7	-1,872.1	135.0	1,876.8	2.32	-0.12	100.71
6,882.0	1.70	324.10	6,514.7	-1,870.6	133.3	1,875.3	0.97	0.35	33.95
6,967.0	0.70	189.10	6,599.7	-1,870.1	132.4	1,874.7	2.65	-1.18	-158.82
7,053.0	0.70	208.90	6,685.7	-1,871.1	132.1	1,875.7	0.28	0.00	23.02
7,124.0	0.98	262.88	6,756.7	-1,871.6	131.3	1,876.1	1.13	0.40	76.02
TARGET CIRCLE 1434'FSL, 2467'FEL									
7,138.0	1.10	268.70	6,770.7	-1,871.6	131.0	1,876.1	1.13	0.84	41.60
7,224.0	2.20	278.90	6,856.6	-1,871.4	128.6	1,875.7	1.32	1.28	11.86
7,309.0	2.90	298.60	6,941.6	-1,870.1	125.1	1,874.2	1.31	0.82	23.18
7,395.0	4.00	308.50	7,027.4	-1,867.2	120.8	1,871.0	1.45	1.28	11.51
7,523.0	4.80	309.80	7,155.0	-1,861.0	113.2	1,864.4	0.63	0.63	1.02
7,571.0	4.80	309.80	7,202.8	-1,858.4	110.1	1,861.6	0.00	0.00	0.00
HARDLINE 187'W OF BHL									

Wellbore Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
TARGET BHL 1434'F	0.00	0.00	6,200.0	-1,817.3	132.3	1,371,989.52	3,173,200.55	40° 21' 10.247 N	104° 52' 42.763 W
- survey misses target center by 49.1ft at 6564.2ft MD (6197.1 TVD, -1866.2 N, 136.1 E)									
- Point									
TARGET CIRCLE 1434'F	0.00	0.00	6,757.0	-1,817.3	132.3	1,371,989.57	3,173,200.53	40° 21' 10.248 N	104° 52' 42.763 W
- survey misses target center by 54.3ft at 7124.2ft MD (6756.9 TVD, -1871.6 N, 131.3 E)									
- Circle (radius 75.0)									
HARDLINE 187'W OF	0.00	0.00	7,244.0	-1,717.3	-54.7	1,372,088.25	3,173,012.84	40° 21' 11.236 N	104° 52' 45.179 W
- survey misses target center by 220.8ft at 7571.0ft MD (7202.8 TVD, -1858.4 N, 110.1 E)									
- Polygon									
Point 1			7,244.0	0.0	0.0	1,372,088.25	3,173,012.84		
Point 2			7,244.0	-300.0	0.0	1,371,788.28	3,173,014.94		

Checked By: _____ Approved By: _____ Date: _____