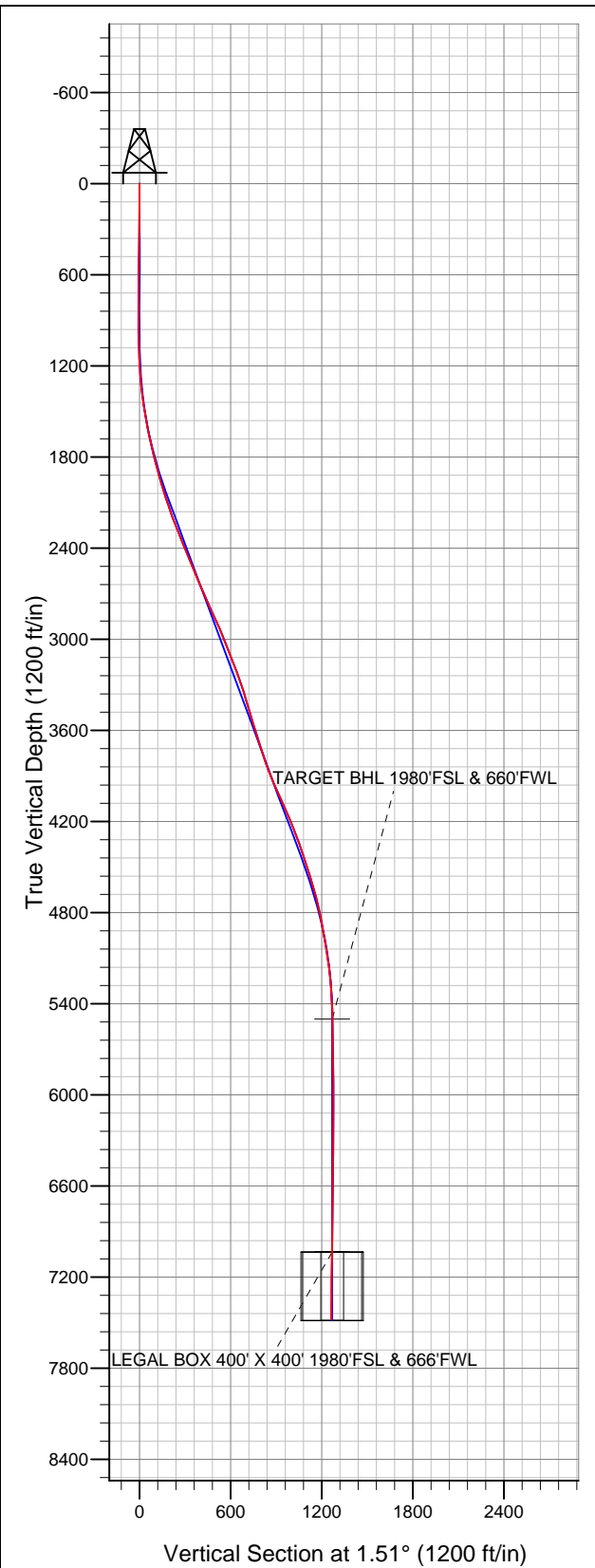




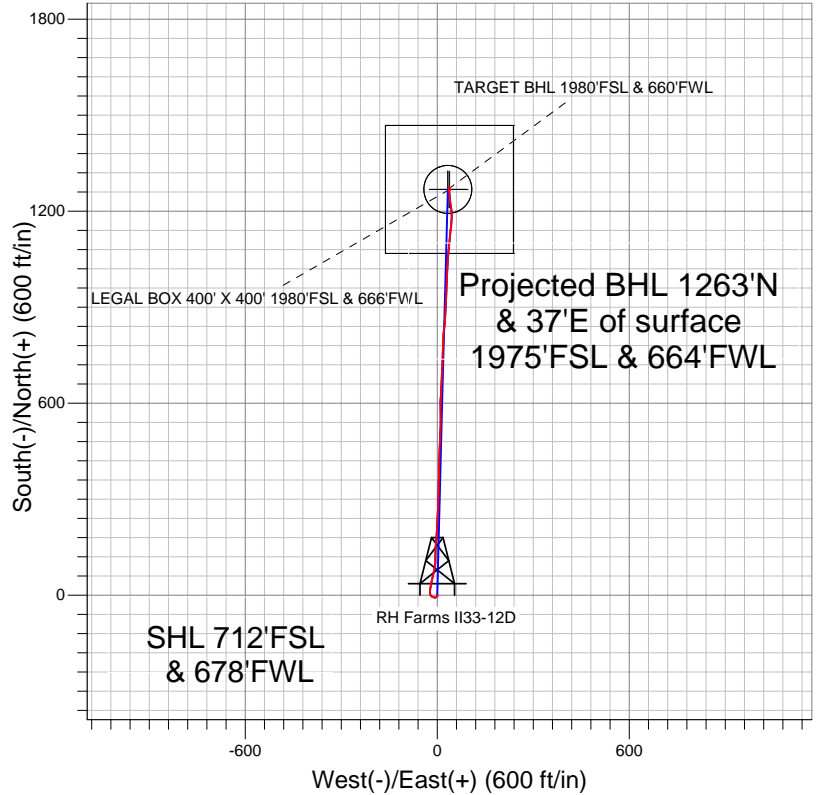
Well Name: RH Farms II33-12D

Surface Location: RH Farms II33-12D Pad Sec.33-T7N-R66W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4865.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1435180.07	3196956.29	40.525810	-104.791500	
Original Well Elev WELL @ 4878.0ft (Original Well Elev)						



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Survey #1
- RH Farms II33-12D, Wellbore #1, Noble RH Farms II33-12D Plan #1 (12-28-11) R V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
7690'MD & 7477'TVD @ 1263'VS
0.40 deg Inc 190 deg AZ

Project: SEC.33-T7N-R66W
Site: RH Farms II33-12D Pad Sec.33-T7N-R66W
Well: RH Farms II33-12D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.33-T7N-R66W

RH Farms II33-12D Pad Sec.33-T7N-R66W

RH Farms II33-12D

Wellbore #1

Survey: Survey #1

Standard Survey Report

03 January, 2012



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well RH Farms II33-12D
Project:	SEC.33-T7N-R66W	TVD Reference:	WELL @ 4878.0ft (Original Well Elev)
Site:	RH Farms II33-12D Pad Sec.33-T7N-R66W	MD Reference:	WELL @ 4878.0ft (Original Well Elev)
Well:	RH Farms II33-12D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.33-T7N-R66W, Weld County, CO		
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	RH Farms II33-12D Pad Sec.33-T7N-R66W		
Site Position:		Northing:	1,435,180.08 ft
From:	Lat/Long	Easting:	3,196,956.29 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.525810
		Longitude:	-104.791500
		Grid Convergence:	0.46 °

Well	RH Farms II33-12D		
Well Position	+N/-S	0.0 ft	Northing: 1,435,180.07 ft
	+E/-W	0.0 ft	Easting: 3,196,956.29 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.525810
		Longitude:	-104.791500
		Ground Level:	4,865.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/28/2011	8.82	67.13	53,137

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	1.51	

Survey Program	Date	1/3/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
104.0	7,690.0	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	
104.0	0.70	128.00	104.0	-0.4	0.5	-0.4	0.67	0.67	0.00	
197.0	0.80	157.00	197.0	-1.3	1.2	-1.3	0.42	0.11	31.18	
320.0	0.60	217.50	320.0	-2.6	1.1	-2.6	0.59	-0.16	49.19	
412.0	1.50	237.00	412.0	-3.7	-0.2	-3.7	1.04	0.98	21.20	
504.0	1.40	225.00	503.9	-5.1	-2.0	-5.2	0.35	-0.11	-13.04	
596.0	1.20	229.40	595.9	-6.6	-3.5	-6.6	0.24	-0.22	4.78	
668.0	1.00	229.30	667.9	-7.5	-4.5	-7.6	0.28	-0.28	-0.14	
749.0	0.90	258.80	748.9	-8.0	-5.7	-8.2	0.61	-0.12	36.42	
831.0	1.30	282.30	830.9	-8.0	-7.2	-8.1	0.73	0.49	28.66	
913.0	2.30	292.20	912.8	-7.1	-9.7	-7.4	1.27	1.22	12.07	
985.0	2.70	294.10	984.8	-5.9	-12.6	-6.2	0.57	0.56	2.64	
1,074.0	2.80	293.80	1,073.7	-4.2	-16.5	-4.6	0.11	0.11	-0.34	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well RH Farms II33-12D
Project:	SEC.33-T7N-R66W	TVD Reference:	WELL @ 4878.0ft (Original Well Elev)
Site:	RH Farms II33-12D Pad Sec.33-T7N-R66W	MD Reference:	WELL @ 4878.0ft (Original Well Elev)
Well:	RH Farms II33-12D	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)
1,155.0	3.30	322.60	1,154.6	-1.5	-19.7	-2.0	1.97	0.62	35.56
1,237.0	4.10	344.90	1,236.4	3.2	-21.9	2.6	1.99	0.98	27.20
1,319.0	5.80	0.90	1,318.1	10.2	-22.6	9.6	2.65	2.07	19.51
1,401.0	7.50	10.80	1,399.5	19.6	-21.5	19.0	2.49	2.07	12.07
1,482.0	9.40	10.80	1,479.6	31.3	-19.3	30.7	2.35	2.35	0.00
1,564.0	10.60	10.90	1,560.4	45.2	-16.6	44.8	1.46	1.46	0.12
1,646.0	11.30	13.80	1,640.9	60.4	-13.3	60.1	1.09	0.85	3.54
1,728.0	13.10	11.80	1,721.0	77.3	-9.4	77.1	2.25	2.20	-2.44
1,809.0	14.40	5.50	1,799.7	96.4	-6.6	96.1	2.45	1.60	-7.78
1,891.0	14.60	1.10	1,879.1	116.8	-5.4	116.7	1.37	0.24	-5.37
1,973.0	16.60	1.10	1,958.1	138.9	-5.0	138.7	2.44	2.44	0.00
2,055.0	17.50	4.10	2,036.5	162.9	-3.9	162.7	1.53	1.10	3.66
2,136.0	18.80	5.10	2,113.5	188.0	-1.9	187.9	1.65	1.60	1.23
2,218.0	20.00	4.30	2,190.8	215.2	0.4	215.1	1.50	1.46	-0.98
2,300.0	22.00	0.60	2,267.4	244.5	1.6	244.5	2.93	2.44	-4.51
2,382.0	22.00	4.10	2,343.4	275.2	2.8	275.2	1.60	0.00	4.27
2,463.0	22.20	2.20	2,418.4	305.6	4.5	305.7	0.92	0.25	-2.35
2,545.0	22.20	359.70	2,494.4	336.6	5.0	336.6	1.15	0.00	-3.05
2,627.0	22.90	2.00	2,570.1	368.0	5.5	368.1	1.37	0.85	2.80
2,709.0	23.20	1.10	2,645.5	400.1	6.4	400.2	0.56	0.37	-1.10
2,790.0	23.50	0.20	2,719.9	432.2	6.7	432.3	0.58	0.37	-1.11
2,872.0	23.70	2.70	2,795.1	465.1	7.6	465.1	1.24	0.24	3.05
2,954.0	26.00	4.30	2,869.5	499.4	9.7	499.5	2.92	2.80	1.95
3,035.0	23.20	0.60	2,943.1	533.1	11.2	533.2	3.94	-3.46	-4.57
3,117.0	21.50	359.50	3,018.9	564.3	11.2	564.4	2.13	-2.07	-1.34
3,199.0	20.70	358.80	3,095.4	593.8	10.8	593.9	1.02	-0.98	-0.85
3,281.0	21.80	4.30	3,171.9	623.5	11.6	623.6	2.78	1.34	6.71
3,362.0	20.30	1.40	3,247.5	652.5	13.1	652.6	2.25	-1.85	-3.58
3,444.0	17.20	2.00	3,325.1	678.9	13.9	679.0	3.79	-3.78	0.73
3,526.0	16.90	3.60	3,403.5	702.9	15.0	703.0	0.68	-0.37	1.95
3,608.0	16.60	4.60	3,482.0	726.5	16.7	726.6	0.51	-0.37	1.22
3,689.0	17.30	0.00	3,559.5	750.0	17.7	750.2	1.87	0.86	-5.68
3,771.0	17.10	0.60	3,637.8	774.3	17.8	774.5	0.33	-0.24	0.73
3,853.0	17.20	3.70	3,716.2	798.4	18.7	798.6	1.12	0.12	3.78
3,935.0	19.50	6.00	3,794.0	824.1	20.9	824.4	2.94	2.80	2.80
4,016.0	21.00	5.30	3,870.0	852.0	23.7	852.4	1.88	1.85	-0.86
4,098.0	22.70	3.20	3,946.1	882.5	25.9	882.9	2.28	2.07	-2.56
4,180.0	24.40	2.20	4,021.3	915.2	27.4	915.6	2.13	2.07	-1.22
4,262.0	25.10	2.30	4,095.8	949.5	28.8	949.9	0.86	0.85	0.12
4,343.0	23.00	2.00	4,169.7	982.5	30.0	982.9	2.60	-2.59	-0.37
4,425.0	21.10	4.30	4,245.7	1,013.2	31.7	1,013.7	2.54	-2.32	2.80
4,507.0	20.60	3.40	4,322.4	1,042.3	33.6	1,042.9	0.72	-0.61	-1.10
4,589.0	18.40	3.20	4,399.6	1,069.7	35.2	1,070.2	2.68	-2.68	-0.24
4,670.0	17.50	6.20	4,476.7	1,094.5	37.3	1,095.1	1.59	-1.11	3.70
4,752.0	18.00	5.10	4,554.8	1,119.4	39.7	1,120.1	0.73	0.61	-1.34
4,834.0	16.70	7.40	4,633.1	1,143.7	42.4	1,144.4	1.79	-1.59	2.80
4,916.0	14.10	4.40	4,712.1	1,165.4	44.6	1,166.1	3.32	-3.17	-3.66
4,997.0	11.50	0.00	4,791.1	1,183.3	45.4	1,184.1	3.43	-3.21	-5.43
5,079.0	11.00	354.80	4,871.5	1,199.2	44.7	1,200.0	1.38	-0.61	-6.34
5,161.0	10.00	351.80	4,952.2	1,214.1	43.0	1,214.8	1.39	-1.22	-3.66
5,242.0	9.40	352.70	5,032.0	1,227.6	41.1	1,228.3	0.76	-0.74	1.11
5,324.0	8.90	353.40	5,113.0	1,240.5	39.5	1,241.2	0.62	-0.61	0.85
5,406.0	6.60	356.50	5,194.2	1,251.6	38.5	1,252.1	2.85	-2.80	3.78
5,488.0	4.70	352.80	5,275.8	1,259.6	37.8	1,260.1	2.36	-2.32	-4.51

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well RH Farms II33-12D
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Site:	RH Farms II33-12D Pad Sec.33-T7N-R66W	MD Reference:	WELL @ 4878.0ft (Original Well Elev)
Well:	RH Farms II33-12D	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)
5,569.0	3.20	358.30	5,356.6	1,265.1	37.3	1,265.7	1.91	-1.85	6.79
5,651.0	1.50	12.70	5,438.5	1,268.5	37.5	1,269.0	2.18	-2.07	17.56
5,712.4	1.13	14.10	5,499.9	1,269.8	37.8	1,270.4	0.61	-0.61	2.28
TARGET BHL 1980'FSL & 660'FWL									
5,733.0	1.00	14.80	5,520.5	1,270.2	37.9	1,270.8	0.61	-0.61	3.41
5,815.0	0.70	358.50	5,602.5	1,271.4	38.1	1,272.0	0.47	-0.37	-19.88
5,896.0	1.20	352.30	5,683.5	1,272.7	38.0	1,273.3	0.63	0.62	-7.65
5,978.0	1.10	329.30	5,765.5	1,274.3	37.4	1,274.8	0.57	-0.12	-28.05
6,060.0	0.40	13.60	5,847.5	1,275.2	37.1	1,275.8	1.05	-0.85	54.02
6,142.0	0.30	336.10	5,929.5	1,275.7	37.1	1,276.2	0.30	-0.12	-45.73
6,223.0	0.20	158.20	6,010.5	1,275.8	37.1	1,276.3	0.62	-0.12	-219.63
6,305.0	0.10	272.50	6,092.5	1,275.6	37.0	1,276.2	0.31	-0.12	139.39
6,387.0	0.20	122.20	6,174.5	1,275.6	37.1	1,276.1	0.36	0.12	-183.29
6,469.0	0.30	174.60	6,256.5	1,275.3	37.2	1,275.8	0.29	0.12	63.90
6,550.0	0.70	157.50	6,337.5	1,274.6	37.4	1,275.1	0.52	0.49	-21.11
6,632.0	0.30	151.90	6,419.5	1,274.0	37.7	1,274.5	0.49	-0.49	-6.83
6,714.0	0.60	129.80	6,501.5	1,273.5	38.2	1,274.1	0.42	0.37	-26.95
6,795.0	0.80	154.90	6,582.5	1,272.7	38.7	1,273.3	0.45	0.25	30.99
6,877.0	0.80	172.50	6,664.4	1,271.6	39.0	1,272.2	0.30	0.00	21.46
6,959.0	0.30	169.80	6,746.4	1,270.8	39.2	1,271.4	0.61	-0.61	-3.29
7,041.0	0.90	183.20	6,828.4	1,270.0	39.2	1,270.6	0.75	0.73	16.34
7,122.0	0.90	179.20	6,909.4	1,268.7	39.1	1,269.3	0.08	0.00	-4.94
7,204.0	0.90	189.70	6,991.4	1,267.4	39.0	1,268.0	0.20	0.00	12.80
7,246.6	0.92	206.43	7,034.0	1,266.8	38.8	1,267.4	0.62	0.04	39.24
LEGAL BOX 400' X 400' 1980'FSL & 666'FWL - TARGET CIRCLE 1980'FSL & 660'FWL									
7,286.0	1.00	220.30	7,073.4	1,266.3	38.5	1,266.8	0.62	0.21	35.24
7,368.0	0.60	195.00	7,155.4	1,265.3	37.9	1,265.9	0.64	-0.49	-30.85
7,449.0	0.40	207.10	7,236.4	1,264.6	37.7	1,265.2	0.28	-0.25	14.94
7,531.0	0.70	215.00	7,318.4	1,264.0	37.2	1,264.5	0.38	0.37	9.63
7,613.0	0.50	177.80	7,400.4	1,263.2	37.0	1,263.7	0.52	-0.24	-45.37
7,639.0	0.50	182.00	7,426.4	1,263.0	37.0	1,263.5	0.14	0.00	16.15
7,690.0	0.40	190.00	7,477.4	1,262.6	36.9	1,263.1	0.23	-0.20	15.69

Checked By: _____ Approved By: _____ Date: _____