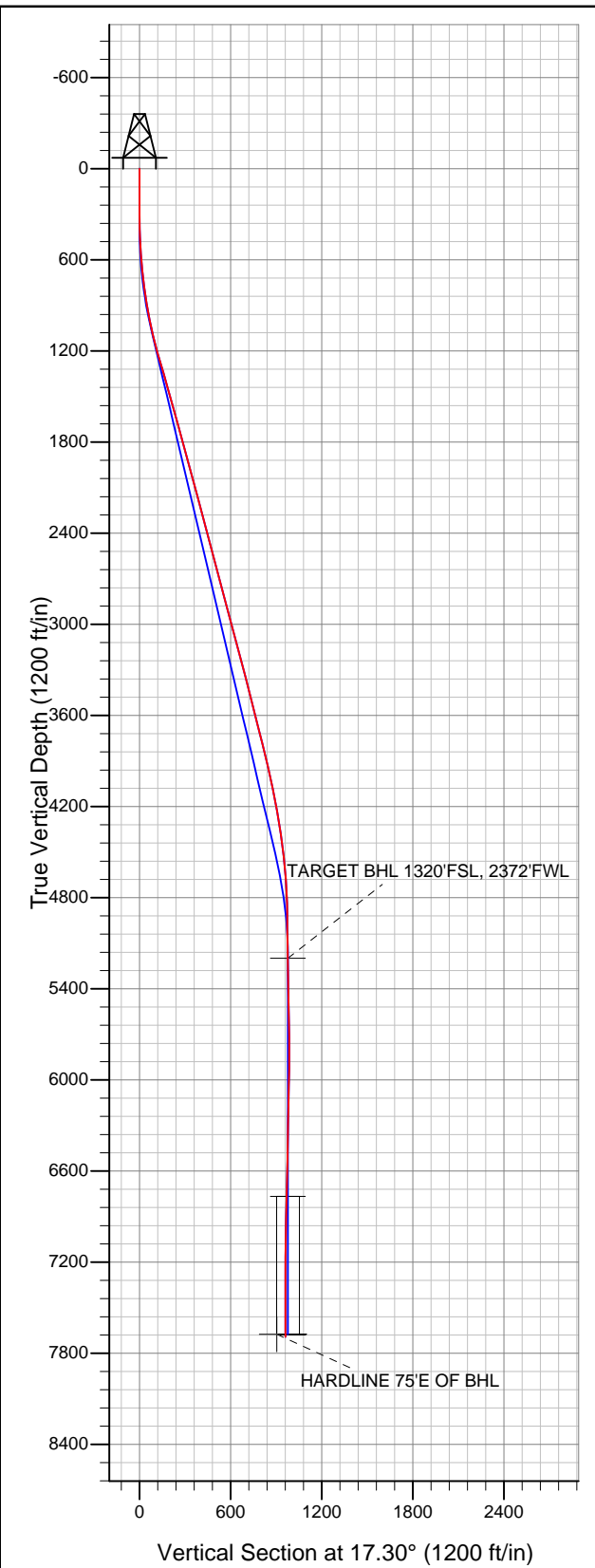


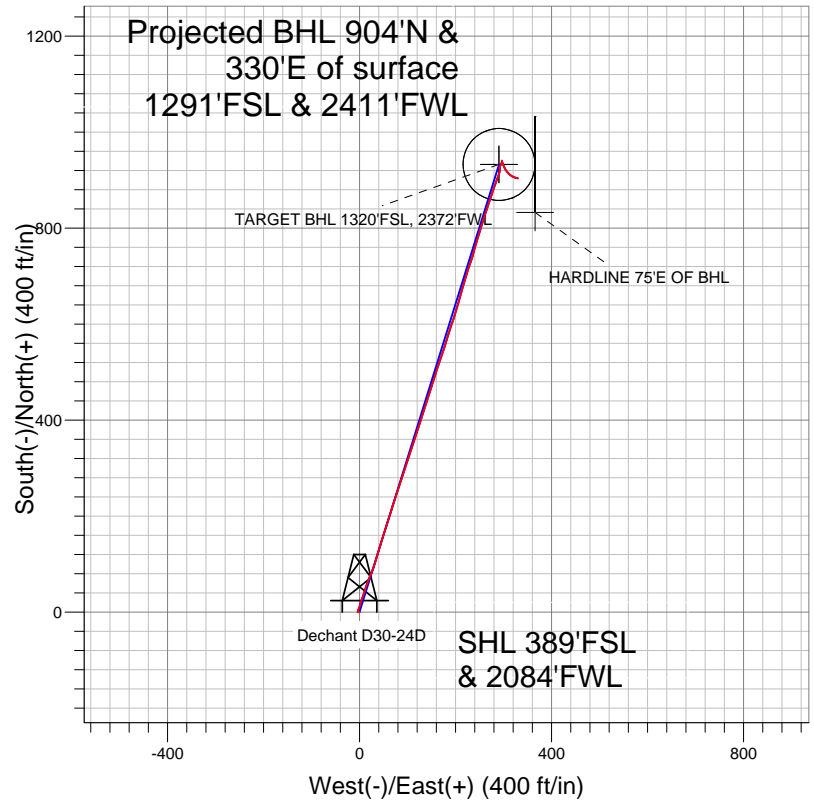


Well Name: Dechant D30-24D

Surface Location: Dechant D30-24D Pad Sec.30-T3N-R64W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4801.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1313330.58 3252730.65 40.189950 -104.595350
Original Well Elev WELL @ 4814.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Dechant D30-24D, Wellbore #1, Noble Dechant D30-24D Plan #1 (10-24-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7810'MD & 7693'TVD @ 961'VS
1.1 deg Inc 98.0 deg AZ

Project: SEC.30-T3N-R64W
Site: Dechant D30-24D Pad Sec.30-T3N-R64W
Well: Dechant D30-24D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.30-T3N-R64W

Dechant D30-24D Pad Sec.30-T3N-R64W

Dechant D30-24D

Wellbore #1

Survey: Survey #1

Standard Survey Report

28 November, 2011



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Site Dechant D30-24D Pad Sec.30-T3N-R64W
Project:	SEC.30-T3N-R64W	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site:	Dechant D30-24D Pad Sec.30-T3N-R64W	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Well:	Dechant D30-24D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.30-T3N-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		Dechant D30-24D Pad Sec.30-T3N-R64W			
Site Position:		Northing:	1,313,330.59ft	Latitude:	40.189950
From:	Lat/Long	Easting:	3,252,730.65ft	Longitude:	-104.595350
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.58 °

Well	Dechant D30-24D					
Well Position	+N/-S	0.0 ft	Northing:	1,313,330.58 ft	Latitude:	40.189950
	+E/-W	0.0 ft	Easting:	3,252,730.65 ft	Longitude:	-104.595350
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,801.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/24/2011	8.71	66.90	53,002

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 (°)	
	5,200.0	0.0	0.0	17.30	

Survey Program	Date	11/28/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
213.0	7,810.0	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	
213.0	0.90	273.10	213.0	0.1	-1.7	-0.4	0.42	0.42	0.00	
303.0	0.90	305.80	303.0	0.5	-2.9	-0.4	0.56	0.00	36.33	
396.0	1.40	6.20	396.0	2.1	-3.4	1.0	1.33	0.54	64.95	
488.0	2.70	24.40	487.9	5.2	-2.4	4.2	1.56	1.41	19.78	
580.0	4.00	22.20	579.7	10.1	-0.3	9.6	1.42	1.41	-2.39	
672.0	5.80	15.20	671.4	17.6	2.1	17.4	2.06	1.96	-7.61	
767.0	7.90	18.90	765.7	28.4	5.5	28.8	2.26	2.21	3.89	
895.0	9.00	17.90	892.3	46.2	11.4	47.6	0.87	0.86	-0.78	
989.0	11.00	22.10	984.9	61.5	17.1	63.9	2.26	2.13	4.47	
1,083.0	12.80	21.20	1,076.9	79.6	24.2	83.2	1.92	1.91	-0.96	
1,177.0	15.40	17.10	1,168.0	101.2	31.6	106.1	2.96	2.77	-4.36	
1,271.0	16.10	16.60	1,258.5	125.6	39.0	131.6	0.76	0.74	-0.53	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Site Dechant D30-24D Pad Sec.30-T3N-R64W
Project:	SEC.30-T3N-R64W	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site:	Dechant D30-24D Pad Sec.30-T3N-R64W	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Well:	Dechant D30-24D	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)	
1,365.0	16.10	16.40	1,348.8	150.6	46.4	157.6	0.06	0.00	-0.21	
1,459.0	16.30	19.30	1,439.1	175.6	54.5	183.8	0.89	0.21	3.09	
1,553.0	15.80	18.40	1,529.4	200.2	62.9	209.8	0.59	-0.53	-0.96	
1,646.0	15.10	17.30	1,619.1	223.7	70.5	234.6	0.82	-0.75	-1.18	
1,741.0	15.00	16.80	1,710.8	247.3	77.7	259.3	0.17	-0.11	-0.53	
1,834.0	15.50	18.40	1,800.5	270.6	85.1	283.7	0.70	0.54	1.72	
1,928.0	15.30	17.10	1,891.2	294.4	92.7	308.7	0.42	-0.21	-1.38	
2,022.0	14.80	17.10	1,981.9	317.7	99.9	333.1	0.53	-0.53	0.00	
2,116.0	15.30	19.60	2,072.7	340.9	107.6	357.5	0.87	0.53	2.66	
2,210.0	15.70	19.40	2,163.3	364.6	116.0	382.6	0.43	0.43	-0.21	
2,304.0	14.90	17.50	2,254.0	388.1	123.8	407.4	1.00	-0.85	-2.02	
2,398.0	15.10	18.00	2,344.8	411.3	131.3	431.7	0.25	0.21	0.53	
2,492.0	14.30	18.40	2,435.7	433.9	138.7	455.6	0.86	-0.85	0.43	
2,586.0	14.30	18.20	2,526.8	456.0	146.0	478.8	0.05	0.00	-0.21	
2,680.0	14.90	16.60	2,617.7	478.6	153.1	502.5	0.77	0.64	-1.70	
2,774.0	15.40	17.50	2,708.5	502.1	160.3	527.0	0.59	0.53	0.96	
2,868.0	15.00	18.60	2,799.2	525.5	167.9	551.7	0.52	-0.43	1.17	
2,961.0	14.60	18.90	2,889.1	548.0	175.5	575.4	0.44	-0.43	0.32	
3,055.0	15.30	17.30	2,979.9	571.1	183.1	599.7	0.86	0.74	-1.70	
3,149.0	14.60	17.10	3,070.7	594.2	190.2	623.9	0.75	-0.74	-0.21	
3,243.0	15.20	18.60	3,161.6	617.2	197.7	648.1	0.76	0.64	1.60	
3,337.0	15.10	16.40	3,252.3	640.6	205.0	672.7	0.62	-0.11	-2.34	
3,431.0	14.70	15.00	3,343.1	663.9	211.6	696.8	0.57	-0.43	-1.49	
3,525.0	14.20	16.10	3,434.2	686.5	217.9	720.3	0.61	-0.53	1.17	
3,619.0	13.70	17.50	3,525.4	708.2	224.4	742.9	0.64	-0.53	1.49	
3,713.0	14.40	19.10	3,616.6	729.9	231.6	765.7	0.85	0.74	1.70	
3,807.0	13.80	14.30	3,707.8	751.8	238.2	788.6	1.40	-0.64	-5.11	
3,901.0	13.60	18.00	3,799.1	773.1	244.4	810.9	0.96	-0.21	3.94	
3,995.0	13.90	17.00	3,890.4	794.5	251.1	833.2	0.41	0.32	-1.06	
4,089.0	13.50	17.30	3,981.7	815.7	257.7	855.5	0.43	-0.43	0.32	
4,183.0	11.90	17.50	4,073.4	835.4	263.8	876.1	1.70	-1.70	0.21	
4,277.0	9.80	19.30	4,165.7	852.2	269.4	893.8	2.26	-2.23	1.91	
4,371.0	8.90	19.30	4,258.5	866.7	274.4	909.1	0.96	-0.96	0.00	
4,465.0	8.70	17.70	4,351.4	880.3	279.0	923.5	0.34	-0.21	-1.70	
4,559.0	8.80	20.10	4,444.3	893.8	283.6	937.7	0.40	0.11	2.55	
4,652.0	6.60	20.50	4,536.4	905.5	287.9	950.2	2.37	-2.37	0.43	
4,746.0	4.70	18.20	4,630.0	914.2	291.0	959.4	2.04	-2.02	-2.45	
4,840.0	3.80	2.20	4,723.7	921.0	292.4	966.3	1.57	-0.96	-17.02	
4,934.0	2.00	347.30	4,817.6	925.7	292.1	970.7	2.06	-1.91	-15.85	
5,028.0	0.50	359.90	4,911.6	927.7	291.8	972.5	1.61	-1.60	13.40	
5,122.0	0.70	49.30	5,005.6	928.5	292.2	973.4	0.57	0.21	52.55	
5,216.0	0.50	45.10	5,099.6	929.2	292.9	974.3	0.22	-0.21	-4.47	
5,310.0	0.80	23.50	5,193.5	930.1	293.5	975.3	0.41	0.32	-22.98	
5,316.5	0.82	23.55	5,200.0	930.1	293.5	975.4	0.32	0.32	0.71	
TARGET BHL 1320'FSL, 2372'FWL										
5,404.0	1.10	24.00	5,287.5	931.5	294.1	976.8	0.32	0.32	0.52	
5,498.0	1.30	23.80	5,381.5	933.3	294.9	978.8	0.21	0.21	-0.21	
5,592.0	1.30	24.20	5,475.5	935.2	295.8	980.9	0.01	0.00	0.43	
5,686.0	1.40	18.70	5,569.5	937.3	296.6	983.1	0.17	0.11	-5.85	
5,780.0	0.90	355.40	5,663.4	939.1	296.9	984.9	0.72	-0.53	-24.79	
5,905.0	0.40	345.30	5,788.4	940.5	296.7	986.2	0.41	-0.40	-8.08	
6,030.0	1.10	166.00	5,913.4	939.8	296.9	985.6	1.20	0.56	-143.44	
6,155.0	2.00	166.40	6,038.4	936.5	297.7	982.7	0.72	0.72	0.32	
6,281.0	1.30	157.60	6,164.3	933.0	298.7	979.7	0.59	-0.56	-6.98	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Site Dechant D30-24D Pad Sec.30-T3N-R64W
Project:	SEC.30-T3N-R64W	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site:	Dechant D30-24D Pad Sec.30-T3N-R64W	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Well:	Dechant D30-24D	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)
6,406.0	0.90	148.10	6,289.3	930.9	299.8	977.9	0.35	-0.32	-7.60
6,531.0	1.30	160.10	6,414.3	928.7	300.8	976.2	0.37	0.32	9.60
6,656.0	1.60	166.30	6,539.2	925.7	301.7	973.5	0.27	0.24	4.96
6,782.0	1.90	144.10	6,665.2	922.3	303.3	970.8	0.58	0.24	-17.62
6,883.1	2.46	133.69	6,766.2	919.4	305.9	968.8	0.68	0.55	-10.30
TARGET CIRCLE 1320'FSL, 2372'FWL									
6,907.0	2.60	131.90	6,790.1	918.7	306.7	968.4	0.68	0.59	-7.49
7,032.0	3.30	147.00	6,914.9	913.8	310.7	964.9	0.83	0.56	12.08
7,158.0	2.20	118.40	7,040.8	909.6	314.8	962.1	1.37	-0.87	-22.70
7,283.0	1.80	115.20	7,165.7	907.6	318.7	961.4	0.33	-0.32	-2.56
7,408.0	1.30	115.40	7,290.7	906.2	321.8	960.9	0.40	-0.40	0.16
7,533.0	1.40	104.70	7,415.6	905.2	324.5	960.8	0.22	0.08	-8.56
7,658.0	1.10	111.90	7,540.6	904.4	327.1	960.8	0.27	-0.24	5.76
7,764.0	1.10	98.00	7,646.6	903.8	329.1	960.8	0.25	0.00	-13.11
7,793.3	1.10	98.00	7,675.9	903.8	329.6	960.9	0.00	0.00	0.00
HARDLINE 75'E OF BHL									
7,810.0	1.10	98.00	7,692.6	903.7	330.0	961.0	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____