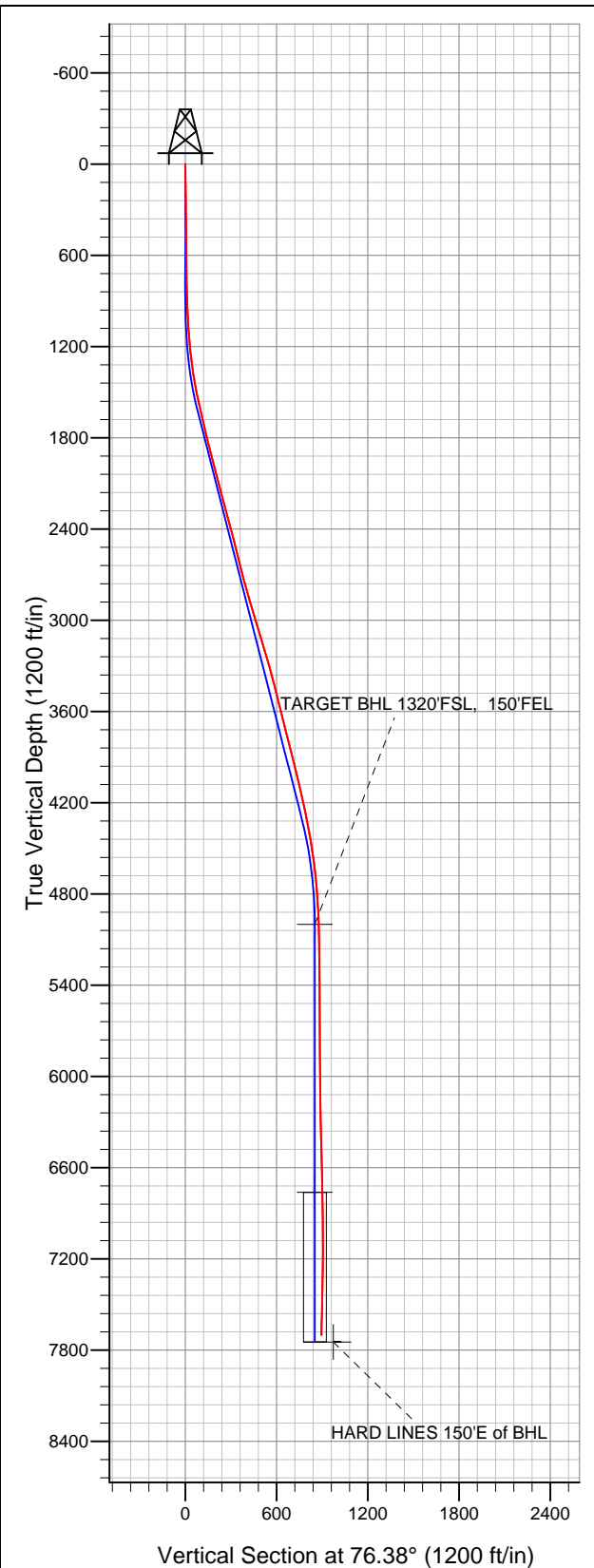


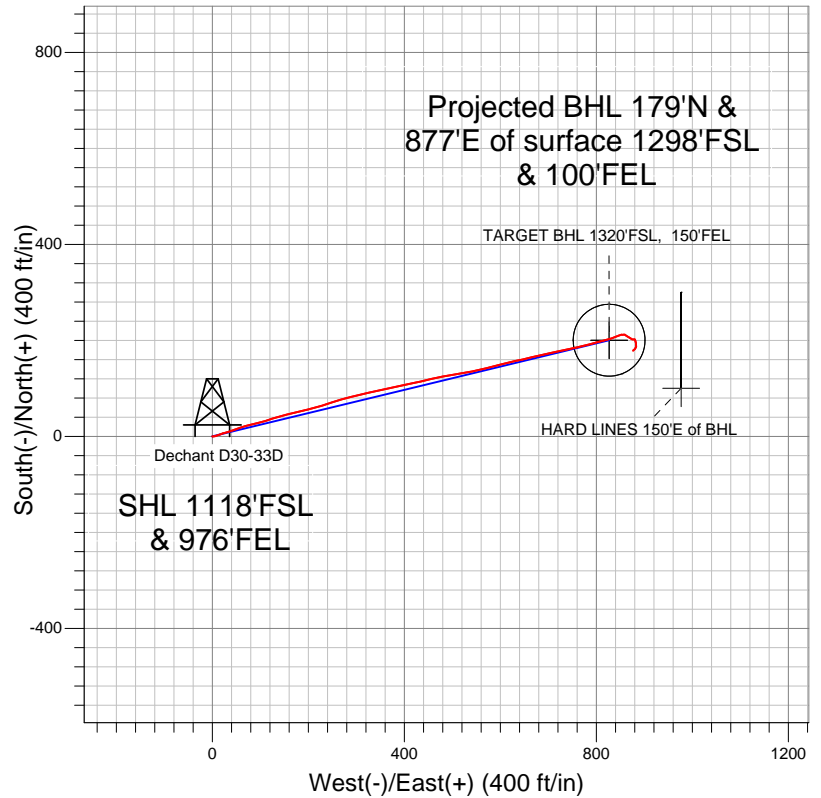
Well Name: Dechant D30-33D

Surface Location: Dechant D31-30D Pad Sec.25-T3N-R65W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 4799.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1314028.12	3249667.12	40.191950	-104.606290	
Original Well Elev			WELL @ 4812.0ft (Original Well Elev)			



NOBLE ENERGY INC WELD COUNTY CO



- LEGEND**
- Wellbore #1
 - Dechant D30-33D, Wellbore #1, Noble Dechant D30-33D Plan #1 (3-23-12) R V0
 - Survey #1

Final Survey Plot

Projected Final Survey -
7804'MD & 7701'TVD @ 895°VS
1.40 deg Inc 227.90 deg AZ

Project: SEC.25-T3N-R65W
Site: Dechant D31-30D Pad Sec.25-T3N-R65W
Well: Dechant D30-33D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.25-T3N-R65W

Dechant D31-30D Pad Sec.25-T3N-R65W

Dechant D30-33D

Wellbore #1

Survey: Survey #1

Standard Survey Report

11 April, 2012



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Dechant D30-33D
Project:	SEC.25-T3N-R65W	TVD Reference:	WELL @ 4812.0ft (Original Well Elev)
Site:	Dechant D31-30D Pad Sec.25-T3N-R65W	MD Reference:	WELL @ 4812.0ft (Original Well Elev)
Well:	Dechant D30-33D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.25-T3N-R65W, 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 D31-30D Pad Sec.25-T3N-R65W		
Site Position:		Northing:	1,314,002.60ft
From:	Lat/Long	Easting:	3,249,664.58ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.191880
		Longitude:	-104.606300
		Grid Convergence:	0.58 °

Well	Dechant D30-33D		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.191950
		Longitude:	-104.606290
		Ground Level:	4,799.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/23/2012	8.66	66.88	52,958

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 (°)	
	5,000.0	0.0	0.0	76.38	

Survey Program	Date	4/11/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
111.0	7,804.0	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	
111.0	0.60	102.40	111.0	-0.1	0.6	0.5	0.54	0.54	0.00	
238.0	0.80	77.40	238.0	-0.1	2.1	2.0	0.28	0.16	-19.69	
364.0	0.80	87.60	364.0	0.2	3.8	3.7	0.11	0.00	8.10	
490.0	0.80	73.20	490.0	0.4	5.5	5.5	0.16	0.00	-11.43	
617.0	0.80	76.10	617.0	0.9	7.2	7.3	0.03	0.00	2.28	
781.0	0.70	76.30	780.9	1.4	9.3	9.4	0.06	-0.06	0.12	
885.0	1.00	60.50	884.9	2.0	10.7	10.9	0.36	0.29	-15.19	
967.0	2.10	71.20	966.9	2.9	12.8	13.1	1.38	1.34	13.05	
1,049.0	3.40	68.30	1,048.8	4.2	16.5	17.0	1.59	1.59	-3.54	
1,130.0	4.40	71.30	1,129.6	6.1	21.6	22.5	1.26	1.23	3.70	
1,212.0	6.10	75.90	1,211.3	8.2	28.8	30.0	2.13	2.07	5.61	
1,294.0	7.70	71.90	1,292.7	11.0	38.3	39.8	2.04	1.95	-4.88	

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Dechant D30-33D
Project:	SEC.25-T3N-R65W	TVD Reference:	WELL @ 4812.0ft (Original Well Elev)
Site:	Dechant D31-30D Pad Sec.25-T3N-R65W	MD Reference:	WELL @ 4812.0ft (Original Well Elev)
Well:	Dechant D30-33D	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)
1,376.0	8.90	69.40	1,373.8	14.9	49.5	51.6	1.53	1.46	-3.05
1,457.0	10.40	72.50	1,453.7	19.3	62.3	65.1	1.96	1.85	3.83
1,539.0	11.50	76.70	1,534.2	23.4	77.3	80.6	1.66	1.34	5.12
1,621.0	12.40	75.80	1,614.4	27.5	93.8	97.6	1.12	1.10	-1.10
1,703.0	13.20	72.30	1,694.4	32.5	111.3	115.8	1.36	0.98	-4.27
1,785.0	13.50	72.30	1,774.1	38.2	129.3	134.7	0.37	0.37	0.00
1,867.0	14.00	76.50	1,853.8	43.4	148.1	154.1	1.36	0.61	5.12
1,948.0	14.60	76.10	1,932.3	48.2	167.5	174.1	0.75	0.74	-0.49
2,030.0	15.00	75.50	2,011.6	53.3	187.8	195.1	0.52	0.49	-0.73
2,112.0	14.90	77.10	2,090.8	58.3	208.3	216.2	0.52	-0.12	1.95
2,194.0	14.90	71.50	2,170.0	64.0	228.6	237.3	1.76	0.00	-6.83
2,275.0	15.10	70.90	2,248.3	70.8	248.5	258.2	0.31	0.25	-0.74
2,357.0	15.30	74.10	2,327.4	77.2	269.0	279.6	1.05	0.24	3.90
2,439.0	14.70	75.90	2,406.6	82.7	289.5	300.8	0.93	-0.73	2.20
2,521.0	14.10	78.90	2,486.0	87.2	309.4	321.2	1.17	-0.73	3.66
2,602.0	14.10	75.50	2,564.6	91.6	328.6	340.9	1.02	0.00	-4.20
2,684.0	14.40	79.10	2,644.1	96.0	348.3	361.1	1.14	0.37	4.39
2,766.0	15.00	76.80	2,723.4	100.4	368.6	381.9	1.02	0.73	-2.80
2,848.0	15.50	77.50	2,802.5	105.1	389.6	403.4	0.65	0.61	0.85
2,929.0	16.20	79.10	2,880.4	109.6	411.3	425.6	1.02	0.86	1.98
3,011.0	17.20	77.50	2,959.0	114.4	434.4	449.1	1.34	1.22	-1.95
3,093.0	16.40	76.00	3,037.5	119.8	457.4	472.8	1.11	-0.98	-1.83
3,175.0	16.20	79.90	3,116.2	124.6	479.9	495.8	1.36	-0.24	4.76
3,257.0	16.80	79.80	3,194.8	128.8	502.9	519.0	0.73	0.73	-0.12
3,338.0	16.80	80.60	3,272.3	132.7	525.9	542.4	0.29	0.00	0.99
3,420.0	14.60	77.90	3,351.3	136.8	547.7	564.6	2.83	-2.68	-3.29
3,502.0	14.30	77.50	3,430.7	141.2	567.7	585.0	0.39	-0.37	-0.49
3,584.0	14.70	74.60	3,510.1	146.2	587.6	605.5	1.01	0.49	-3.54
3,665.0	14.30	75.70	3,588.5	151.4	607.2	625.8	0.60	-0.49	1.36
3,747.0	14.50	77.70	3,667.9	156.0	627.1	646.2	0.65	0.24	2.44
3,829.0	14.20	77.00	3,747.4	160.5	646.9	666.5	0.42	-0.37	-0.85
3,911.0	13.20	76.20	3,827.0	165.0	665.8	685.9	1.24	-1.22	-0.98
3,993.0	12.90	77.70	3,906.9	169.2	683.8	704.5	0.55	-0.37	1.83
4,074.0	13.90	77.70	3,985.7	173.2	702.2	723.2	1.23	1.23	0.00
4,156.0	13.70	77.80	4,065.3	177.3	721.3	742.8	0.25	-0.24	0.12
4,238.0	13.10	78.90	4,145.1	181.2	739.9	761.8	0.79	-0.73	1.34
4,320.0	12.50	77.10	4,225.1	184.9	757.7	779.9	0.88	-0.73	-2.20
4,401.0	11.20	76.50	4,304.3	188.7	773.9	796.6	1.61	-1.60	-0.74
4,483.0	10.20	74.20	4,384.9	192.6	788.6	811.8	1.33	-1.22	-2.80
4,565.0	9.80	74.80	4,465.7	196.4	802.3	826.0	0.50	-0.49	0.73
4,647.0	8.90	76.60	4,546.6	199.7	815.2	839.3	1.15	-1.10	2.20
4,729.0	6.10	73.20	4,627.9	202.4	825.6	850.0	3.46	-3.41	-4.15
4,810.0	5.10	70.80	4,708.5	204.8	833.1	857.9	1.27	-1.23	-2.96
4,892.0	4.20	67.00	4,790.2	207.2	839.3	864.5	1.16	-1.10	-4.63
4,974.0	4.00	71.30	4,872.0	209.3	844.8	870.3	0.45	-0.24	5.24
5,056.0	2.90	68.60	4,953.8	211.0	849.4	875.2	1.36	-1.34	-3.29
5,101.2	2.14	77.00	4,999.0	211.6	851.3	877.2	1.86	-1.68	18.58
TARGET BHL 1320'FSL, 150'FEL									
5,137.0	1.60	89.10	5,034.8	211.7	852.5	878.3	1.86	-1.51	33.80
5,219.0	0.80	111.50	5,116.8	211.5	854.1	879.9	1.11	-0.98	27.32
5,383.0	0.30	42.90	5,280.8	211.4	855.5	881.2	0.45	-0.30	-41.83
5,546.0	0.20	52.70	5,443.7	211.9	856.0	881.8	0.07	-0.06	6.01
5,710.0	0.70	97.60	5,607.7	212.0	857.2	883.0	0.35	0.30	27.38
5,873.0	0.30	56.20	5,770.7	212.1	858.6	884.4	0.32	-0.25	-25.40

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Dechant D30-33D
Project:	SEC.25-T3N-R65W	TVD Reference:	WELL @ 4812.0ft (Original Well Elev)
Site:	Dechant D31-30D Pad Sec.25-T3N-R65W	MD Reference:	WELL @ 4812.0ft (Original Well Elev)
Well:	Dechant D30-33D	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)	
6,037.0	0.50	106.70	5,934.7	212.1	859.6	885.4	0.24	0.12	30.79	
6,200.0	1.00	140.20	6,097.7	210.8	861.2	886.6	0.40	0.31	20.55	
6,364.0	1.50	117.40	6,261.7	208.7	864.0	888.9	0.42	0.30	-13.90	
6,527.0	1.90	119.00	6,424.6	206.4	868.3	892.5	0.25	0.25	0.98	
6,691.0	1.80	132.10	6,588.5	203.4	872.6	895.9	0.26	-0.06	7.99	
6,854.0	1.90	80.80	6,751.5	202.1	877.1	900.1	0.98	0.06	-31.47	
6,863.5	1.81	81.72	6,761.0	202.1	877.4	900.4	1.00	-0.95	9.67	
TARGET CIRCLE 1320'FSL & 150'FEL										
7,018.0	0.60	137.30	6,915.4	201.9	880.4	903.2	1.00	-0.78	35.98	
7,181.0	3.30	165.50	7,078.3	196.7	882.2	903.7	1.71	1.66	17.30	
7,345.0	1.90	177.80	7,242.1	189.4	883.4	903.2	0.91	-0.85	7.50	
7,508.0	1.60	211.90	7,405.1	184.8	882.3	901.0	0.65	-0.18	20.92	
7,671.0	1.60	222.70	7,568.0	181.2	879.6	897.5	0.18	0.00	6.63	
7,758.0	1.40	227.90	7,655.0	179.6	878.0	895.6	0.28	-0.23	5.98	
7,804.0	1.40	227.90	7,701.0	178.8	877.2	894.6	0.00	0.00	0.00	
HARD LINES 150'E of BHL										

Checked By: _____ Approved By: _____ Date: _____