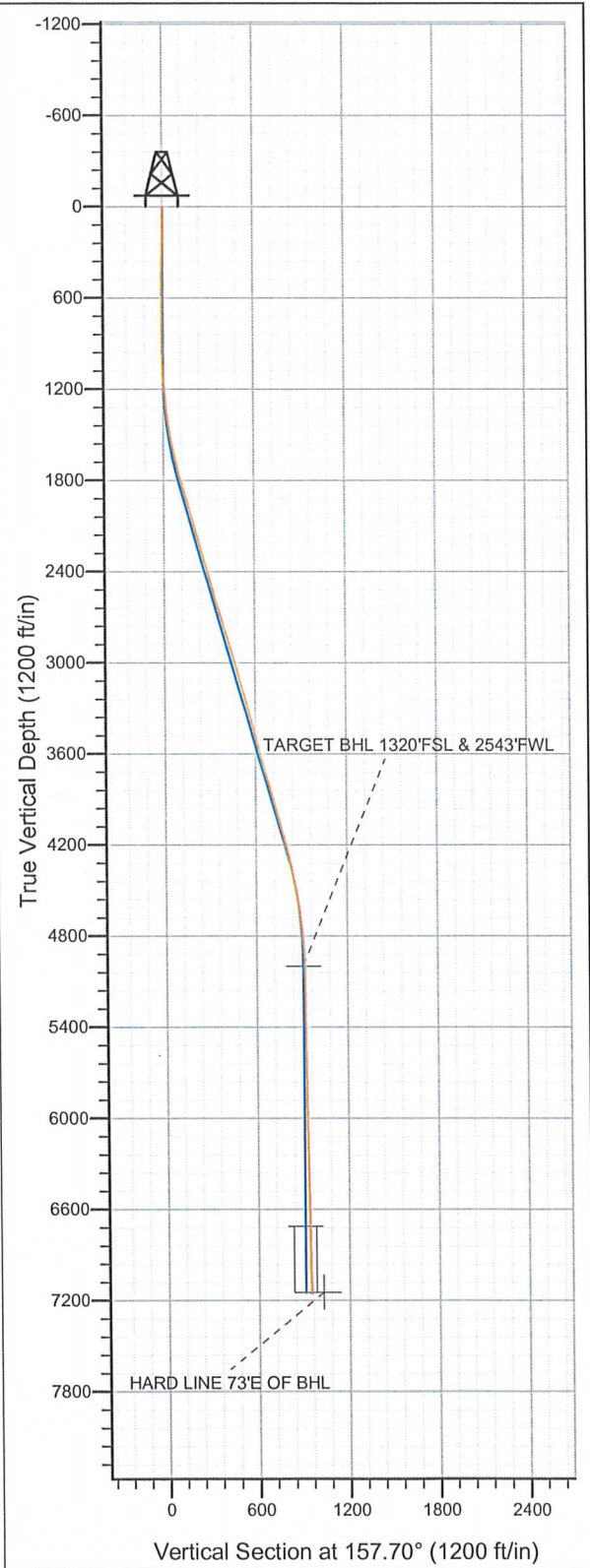




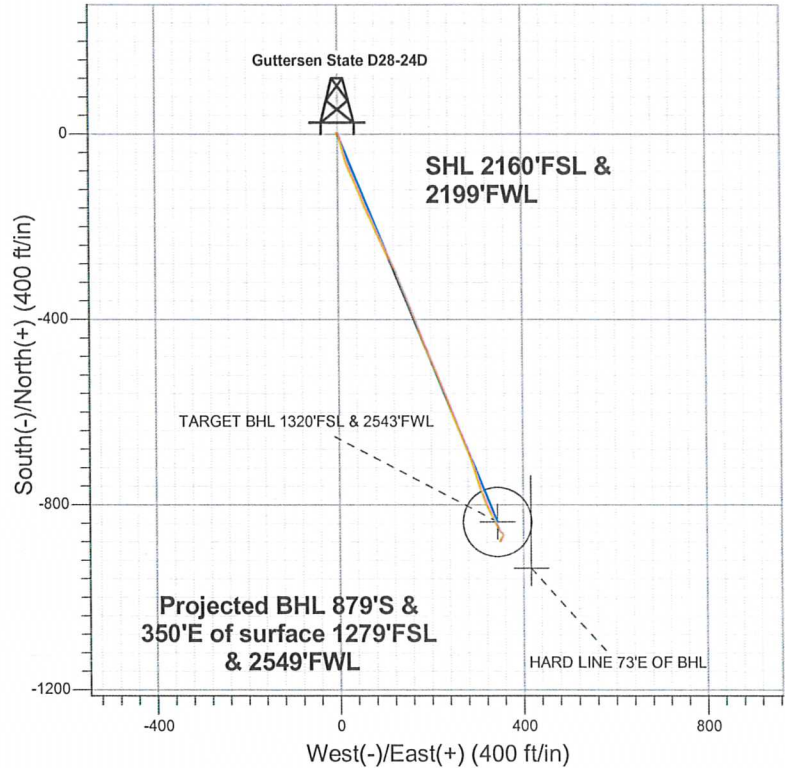
Well Name: Gutttersen State D28-24D

Surface Location: Gutttersen State D28-21D Pad Sec.28-T3N-R64W
 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	1315282.78	3263181.41	40.195010	-104.557870	
Original Well Elev				WELL @ 4812.0ft (Original Well Elev)		



NOBLE ENERGY INC WELD COUNTY CO



- LEGEND
- Wellbore #1
 - Gutttersen State D28-24D, Wellbore #1, Noble Gutttersen State D28-24D Plan #1 (6-18-12)R V0
 - Survey #1

Final Survey Plot

Projected Final Survey -
 7275'MD & 7158'TVD @ 946'VS
 1.00 deg Inc 192.30 deg AZ

Project: SEC.28-T3N-R64W
 Site: Gutttersen State D28-21D Pad Sec.28-T3N-R64W
 Well: Gutttersen State D28-24D
 Plan: Wellbore #1



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.28-T3N-R64W

Guttersen State D28-21D Pad Sec.28-T3N-R64W

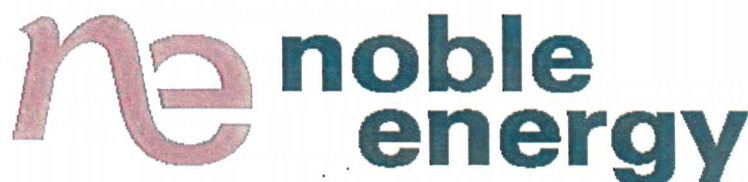
Guttersen State D28-24D

Wellbore #1

Survey: Survey #1

Standard Survey Report

25 June, 2012



Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.28-T3N-R64W
Site: Gutttersen State D28-21D Pad
Sec.28-T3N-R64W
Well: Gutttersen State D28-24D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Gutttersen State D28-24D
TVD Reference: WELL @ 4812.0ft (Original Well Elev)
MD Reference: WELL @ 4812.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Landmark

Project	SEC.28-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	Gutttersen State D28-21D Pad Sec.28-T3N-R64W				
Site Position:		Northing:	1,315,304.56 ft	Latitude:	40.195070
From:	Lat/Long	Easting:	3,263,172.79 ft	Longitude:	-104.557900
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.61 °

Well	Guttersen State D28-24D					
Well Position	+N/-S	0.0 ft	Northing:	1,315,282.78 ft	Latitude:	40.195010
	+E/-W	0.0 ft	Easting:	3,263,181.41 ft	Longitude:	-104.557870
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,799.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/18/2012	8.60	66.88	52,940

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	157.70	

Survey Program	Date 6/25/2012				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
144.0	7,275.0	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
144.0	0.20	57.50	144.0	0.1	0.2	0.0	0.14	0.14	0.00
236.0	0.30	318.20	236.0	0.4	0.2	-0.3	0.42	0.11	-107.93
328.0	0.50	296.00	328.0	0.8	-0.3	-0.8	0.27	0.22	-24.13
420.0	0.70	306.40	420.0	1.3	-1.1	-1.6	0.25	0.22	11.30
511.0	0.30	0.90	511.0	1.8	-1.6	-2.3	0.64	-0.44	59.89
613.0	0.10	355.40	613.0	2.2	-1.6	-2.6	0.20	-0.20	-5.39
695.0	0.10	23.90	695.0	2.3	-1.6	-2.7	0.06	0.00	34.76
777.0	0.20	59.60	777.0	2.5	-1.4	-2.8	0.16	0.12	43.54
835.0	0.40	61.30	835.0	2.6	-1.2	-2.9	0.35	0.34	2.93
918.0	0.30	53.60	918.0	2.9	-0.7	-2.9	0.13	-0.12	-9.28
999.0	1.10	132.50	999.0	2.5	0.0	-2.3	1.34	0.99	97.41

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.28-T3N-R64W
Site: Guttersen State D28-21D Pad
Sec.28-T3N-R64W
Well: Guttersen State D28-24D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Guttersen State D28-24D
TVD Reference: WELL @ 4812.0ft (Original Well Elev)
MD Reference: WELL @ 4812.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
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)
1,081.0	2.10	154.30	1,080.9	0.6	1.3	-0.1	1.41	1.22	26.59
1,163.0	3.80	167.90	1,162.8	-3.4	2.5	4.1	2.23	2.07	16.59
1,244.0	5.40	165.60	1,243.6	-9.7	4.0	10.5	1.99	1.98	-2.84
1,326.0	6.90	161.40	1,325.1	-18.1	6.5	19.3	1.91	1.83	-5.12
1,408.0	8.60	163.60	1,406.3	-28.7	9.8	30.3	2.10	2.07	2.68
1,489.0	10.60	165.20	1,486.2	-41.7	13.4	43.7	2.49	2.47	1.98
1,571.0	12.30	161.90	1,566.6	-57.3	18.1	59.9	2.22	2.07	-4.02
1,653.0	13.10	157.30	1,646.6	-74.2	24.4	77.9	1.57	0.98	-5.61
1,735.0	14.00	154.00	1,726.3	-91.7	32.3	97.1	1.45	1.10	-4.02
1,816.0	15.70	157.00	1,804.6	-110.6	40.9	117.8	2.30	2.10	3.70
1,898.0	16.80	159.10	1,883.3	-131.8	49.4	140.7	1.52	1.34	2.56
1,980.0	16.30	157.80	1,961.9	-153.6	58.0	164.1	0.76	-0.61	-1.59
2,061.0	16.00	155.00	2,039.7	-174.2	67.0	186.6	1.03	-0.37	-3.46
2,143.0	15.20	155.40	2,118.7	-194.2	76.3	208.6	0.98	-0.98	0.49
2,225.0	16.40	155.90	2,197.6	-214.6	85.5	231.0	1.47	1.46	0.61
2,306.0	16.50	154.30	2,275.3	-235.4	95.1	253.9	0.57	0.12	-1.98
2,388.0	16.50	154.00	2,353.9	-256.3	105.3	277.1	0.10	0.00	-0.37
2,470.0	16.10	154.50	2,432.6	-277.1	115.3	300.1	0.52	-0.49	0.61
2,551.0	15.30	155.40	2,510.6	-296.9	124.6	322.0	1.03	-0.99	1.11
2,633.0	15.70	159.90	2,589.6	-317.2	132.9	343.9	1.55	0.49	5.49
2,715.0	17.00	156.80	2,668.3	-338.6	141.4	367.0	1.91	1.59	-3.78
2,796.0	17.10	158.50	2,745.7	-360.6	150.5	390.7	0.63	0.12	2.10
2,878.0	16.40	158.00	2,824.2	-382.5	159.2	414.3	0.87	-0.85	-0.61
2,960.0	17.10	159.80	2,902.8	-404.6	167.7	438.0	1.06	0.85	2.20
3,041.0	16.40	158.70	2,980.3	-426.4	176.0	461.3	0.95	-0.86	-1.36
3,123.0	16.40	158.70	3,059.0	-448.0	184.4	484.4	0.00	0.00	0.00
3,205.0	16.40	157.30	3,137.7	-469.4	193.1	507.6	0.48	0.00	-1.71
3,286.0	15.30	157.80	3,215.6	-489.9	201.5	529.7	1.37	-1.36	0.62
3,368.0	14.90	155.60	3,294.7	-509.5	210.0	551.1	0.85	-0.49	-2.68
3,450.0	14.70	157.70	3,374.0	-528.7	218.3	572.0	0.70	-0.24	2.56
3,531.0	14.90	157.70	3,452.3	-547.9	226.1	592.7	0.25	0.25	0.00
3,613.0	14.60	157.30	3,531.6	-567.2	234.1	613.6	0.39	-0.37	-0.49
3,695.0	15.30	160.70	3,610.9	-586.9	241.7	634.7	1.37	0.85	4.15
3,777.0	16.00	158.50	3,689.8	-607.6	249.4	656.8	1.12	0.85	-2.68
3,858.0	16.10	157.10	3,767.7	-628.4	257.8	679.2	0.49	0.12	-1.73
3,940.0	16.30	158.00	3,846.4	-649.5	266.6	702.1	0.39	0.24	1.10
4,022.0	16.10	158.70	3,925.2	-670.8	275.0	725.0	0.34	-0.24	0.85
4,103.0	14.40	155.40	4,003.3	-690.4	283.3	746.3	2.36	-2.10	-4.07
4,185.0	14.10	160.70	4,082.8	-709.1	290.8	766.4	1.63	-0.37	6.46
4,267.0	15.60	165.00	4,162.0	-729.2	297.0	787.3	2.27	1.83	5.24
4,348.0	13.40	162.90	4,240.5	-748.7	302.6	807.5	2.79	-2.72	-2.59
4,430.0	12.00	160.50	4,320.4	-765.8	308.2	825.5	1.82	-1.71	-2.93
4,512.0	11.30	158.90	4,400.8	-781.3	314.0	842.0	0.94	-0.85	-1.95
4,593.0	10.60	158.50	4,480.3	-795.6	319.5	857.4	0.87	-0.86	-0.49
4,675.0	9.80	154.50	4,561.0	-809.0	325.3	871.9	1.30	-0.98	-4.88
4,757.0	7.50	151.20	4,642.1	-820.0	330.9	884.2	2.87	-2.80	-4.02
4,838.0	6.40	154.90	4,722.5	-828.7	335.4	893.9	1.47	-1.36	4.57
4,920.0	5.70	151.90	4,804.0	-836.4	339.2	902.6	0.94	-0.85	-3.66
5,002.0	4.70	151.00	4,885.7	-842.9	342.8	910.0	1.22	-1.22	-1.10
5,083.0	2.60	159.20	4,966.5	-847.6	345.0	915.1	2.66	-2.59	10.12
5,116.2	1.78	156.66	4,999.7	-848.7	345.5	916.4	2.49	-2.47	-7.64
TARGET BHL 1320'FSL & 2543'FWL									
5,165.0	0.60	140.30	5,048.5	-849.6	346.0	917.4	2.49	-2.42	-33.55

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.28-T3N-R64W
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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)
5,247.0	0.60	143.10	5,130.5	-850.3	346.5	918.2	0.04	0.00	3.41
5,328.0	0.60	149.00	5,211.4	-851.0	347.0	919.0	0.08	0.00	7.28
5,410.0	0.50	151.00	5,293.4	-851.7	347.4	919.8	0.12	-0.12	2.44
5,492.0	0.60	164.00	5,375.4	-852.4	347.6	920.6	0.19	0.12	15.85
5,573.0	0.40	175.20	5,456.4	-853.1	347.8	921.3	0.27	-0.25	13.83
5,655.0	0.50	177.00	5,538.4	-853.7	347.8	921.9	0.12	0.12	2.20
5,737.0	0.70	155.60	5,620.4	-854.6	348.1	922.7	0.36	0.24	-26.10
5,819.0	0.70	151.20	5,702.4	-855.4	348.5	923.7	0.07	0.00	-5.37
5,900.0	0.60	155.90	5,783.4	-856.3	348.9	924.6	0.14	-0.12	5.80
5,982.0	0.70	152.70	5,865.4	-857.1	349.3	925.6	0.13	0.12	-3.90
6,064.0	0.60	149.80	5,947.4	-857.9	349.8	926.5	0.13	-0.12	-3.54
6,145.0	0.70	141.70	6,028.4	-858.7	350.3	927.4	0.17	0.12	-10.00
6,227.0	0.80	129.40	6,110.4	-859.4	351.0	928.4	0.23	0.12	-15.00
6,309.0	0.90	121.60	6,192.4	-860.1	352.0	929.4	0.19	0.12	-9.51
6,390.0	1.10	104.00	6,273.4	-860.7	353.3	930.4	0.45	0.25	-21.73
6,472.0	1.10	118.80	6,355.4	-861.2	354.8	931.4	0.35	0.00	18.05
6,554.0	1.20	151.30	6,437.3	-862.4	355.9	932.9	0.79	0.12	39.63
6,635.0	1.20	174.40	6,518.3	-863.9	356.4	934.6	0.59	0.00	28.52
6,717.0	1.30	181.70	6,600.3	-865.7	356.4	936.2	0.23	0.12	8.90
6,799.0	1.30	196.70	6,682.3	-867.5	356.1	937.8	0.41	0.00	18.29
6,828.1	1.47	201.16	6,711.4	-868.2	355.9	938.3	0.70	0.60	15.31
TARGET CIRCLE 1320'FSL & 2543'FWL									
6,880.0	1.80	206.90	6,763.3	-869.6	355.3	939.3	0.70	0.63	11.07
6,962.0	2.10	214.60	6,845.2	-871.9	353.9	941.0	0.48	0.37	9.39
7,044.0	1.90	216.90	6,927.2	-874.3	352.2	942.5	0.26	-0.24	2.80
7,125.0	1.30	208.40	7,008.1	-876.2	350.9	943.8	0.79	-0.74	-10.49
7,207.0	1.10	202.10	7,090.1	-877.7	350.2	944.9	0.29	-0.24	-7.68
7,230.0	1.10	196.70	7,113.1	-878.1	350.1	945.3	0.45	0.00	-23.48
7,264.6	1.02	193.39	7,147.7	-878.7	349.9	945.8	0.29	-0.22	-9.56
HARD LINE 73'E OF BHL									
7,275.0	1.00	192.30	7,158.1	-878.9	349.9	945.9	0.29	-0.22	-10.51

Checked By: _____ Approved By: _____ Date: _____