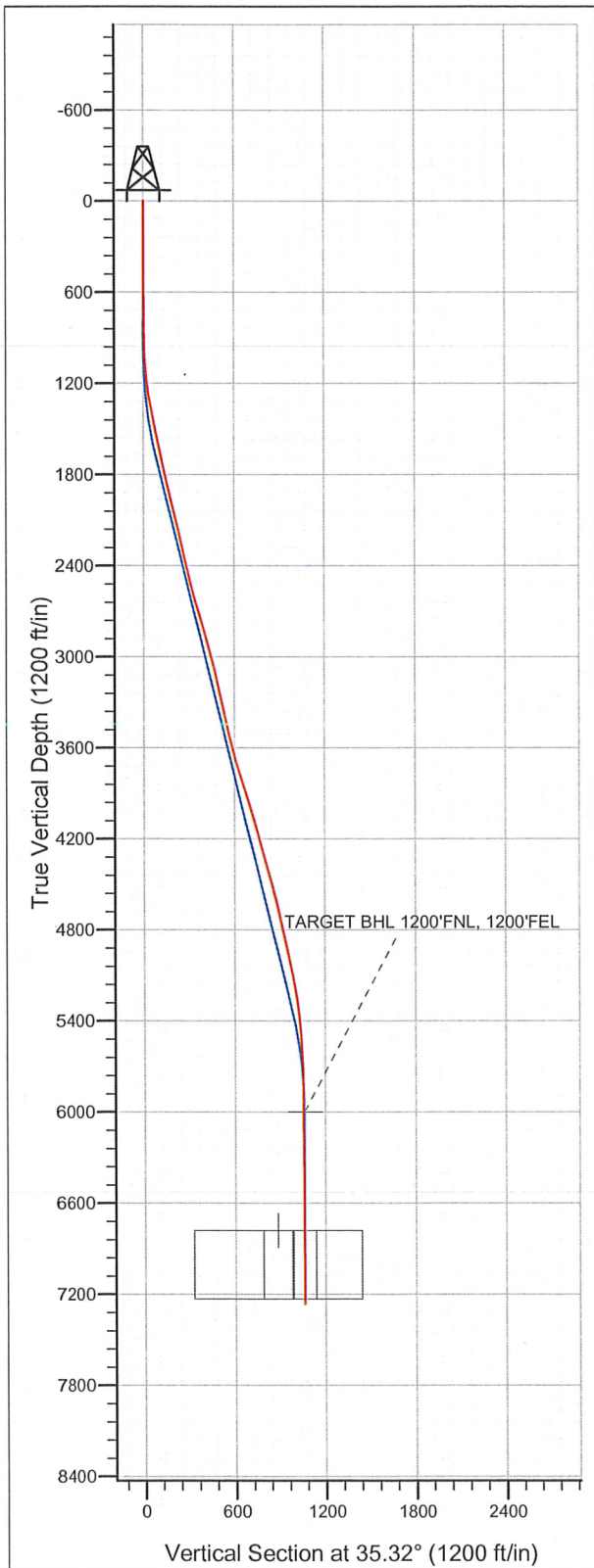


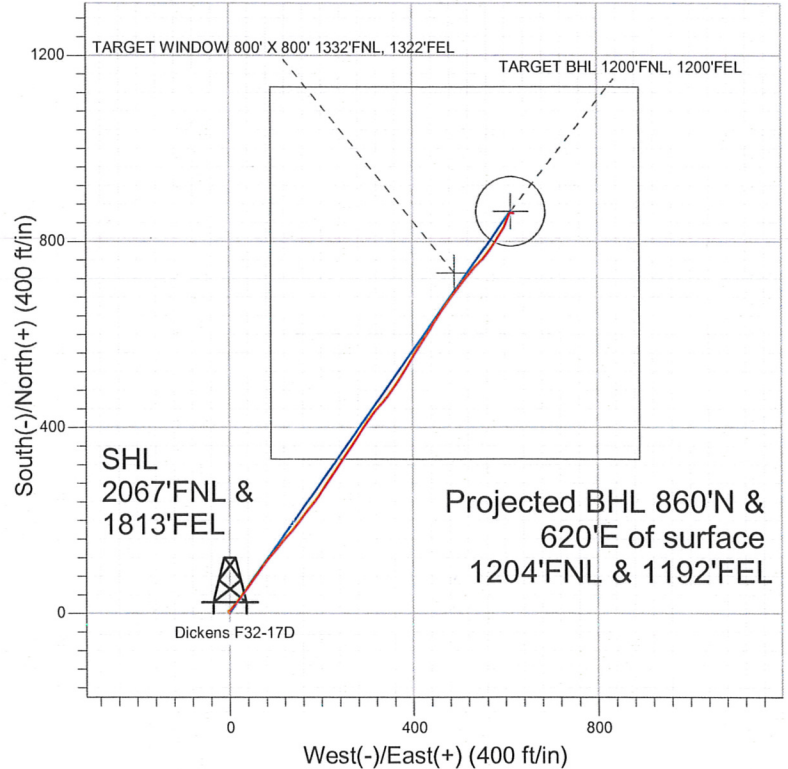
Well Name: Dickens F32-17D

Surface Location: Dickens F32-27D Pad Sec.32-T5N-R65W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4668.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1374086.80	3227303.73	40.357400	-104.684360	
Original Well Elev				WELL @ 4681.0ft (Original Well Elev)		



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- ◆ Dickens F32-17D, Wellbore #1, Noble Dickens F32-17D Plan #2 (1-26-10) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7388'MD & 7262'TVD @ 1060'VS
0.50 deg Inc 90.60 deg AZ

Project: SEC.32-T5N-R65W
Site: Dickens F32-27D Pad Sec.32-T5N-R65W
Well: Dickens F32-17D
Plan: Wellbore #1



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.32-T5N-R65W

Dickens F32-27D Pad Sec.32-T5N-R65W

Dickens F32-17D

Wellbore #1

Survey: Survey #1

Standard Survey Report

20 February, 2012



Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.32-T5N-R65W
 Site: Dickens F32-27D Pad Sec.32-T5N-R65W
 Well: Dickens F32-17D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Site Dickens F32-27D Pad Sec.32-T5N-R65W
 TVD Reference: WELL @ 4681.0ft (Original Well Elev)
 MD Reference: WELL @ 4681.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: Landmark

Project	SEC.32-T5N-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	Dickens F32-27D Pad Sec.32-T5N-R65W				
Site Position:		Northing:	1,374,086.80 ft	Latitude:	40.357400
From:	Lat/Long	Easting:	3,227,303.73 ft	Longitude:	-104.684360
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.53 °

Well	Dickens F32-17D					
Well Position	+N/-S	0.0 ft	Northing:	1,374,086.80 ft	Latitude:	40.357400
	+E/-W	0.0 ft	Easting:	3,227,303.73 ft	Longitude:	-104.684360
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,668.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/4/2012	8.70	67.02	53,084

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	35.32	

Survey Program	Date 2/19/2012				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
625.0	7,388.0	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
625.0	0.50	328.10	625.0	2.3	-1.4	1.1	0.08	0.08	0.00
688.0	0.70	307.50	688.0	2.8	-1.9	1.2	0.46	0.32	-32.70
781.0	0.70	328.40	781.0	3.6	-2.6	1.4	0.27	0.00	22.47
875.0	0.40	38.20	875.0	4.4	-2.7	2.0	0.72	-0.32	74.26
968.0	2.20	57.60	968.0	5.6	-1.0	4.0	1.97	1.94	20.86
1,062.0	3.90	41.00	1,061.8	8.9	2.6	8.8	2.02	1.81	-17.66
1,156.0	6.00	43.30	1,155.5	14.9	8.1	16.8	2.24	2.23	2.45
1,251.0	8.40	40.20	1,249.7	23.8	15.9	28.7	2.56	2.53	-3.26
1,345.0	10.90	37.40	1,342.4	36.2	25.8	44.4	2.71	2.66	-2.98
1,439.0	11.30	34.20	1,434.6	50.8	36.3	62.5	0.78	0.43	-3.40
1,533.0	11.70	37.90	1,526.7	66.0	47.4	81.2	0.89	0.43	3.94
1,626.0	12.40	34.20	1,617.7	81.7	58.8	100.6	1.12	0.75	-3.98

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.32-T5N-R65W
Site: Dickens F32-27D Pad Sec.32-T5N-R65W
Well: Dickens F32-17D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Site Dickens F32-27D Pad Sec.32-T5N-R65W
TVD Reference: WELL @ 4681.0ft (Original Well Elev)
MD Reference: WELL @ 4681.0ft (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)
1,719.0	12.60	34.70	1,708.5	98.3	70.2	120.8	0.24	0.22	0.54
1,813.0	13.00	39.10	1,800.1	114.9	82.7	141.6	1.12	0.43	4.68
1,907.0	13.20	40.70	1,891.7	131.2	96.3	162.8	0.44	0.21	1.70
2,002.0	12.60	40.00	1,984.3	147.4	110.1	183.9	0.65	-0.63	-0.74
2,096.0	13.70	43.50	2,075.8	163.3	124.3	205.2	1.44	1.17	3.72
2,189.0	13.90	38.40	2,166.1	180.1	138.9	227.2	1.33	0.22	-5.48
2,283.0	13.50	37.00	2,257.5	197.7	152.5	249.5	0.55	-0.43	-1.49
2,378.0	13.40	36.60	2,349.9	215.4	165.7	271.5	0.14	-0.11	-0.42
2,471.0	12.80	38.60	2,440.4	232.1	178.6	292.6	0.81	-0.65	2.15
2,565.0	13.90	36.10	2,531.9	249.3	191.7	314.3	1.32	1.17	-2.66
2,658.0	16.40	34.50	2,621.7	269.2	205.7	338.6	2.73	2.69	-1.72
2,752.0	17.00	34.00	2,711.7	291.5	220.9	365.6	0.66	0.64	-0.53
2,846.0	15.50	32.40	2,801.9	313.5	235.3	391.9	1.67	-1.60	-1.70
2,939.0	15.60	34.20	2,891.5	334.4	249.0	416.8	0.53	0.11	1.94
3,032.0	15.30	33.50	2,981.2	354.9	262.8	441.6	0.38	-0.32	-0.75
3,126.0	14.20	33.30	3,072.1	374.9	276.0	465.5	1.17	-1.17	-0.21
3,219.0	12.70	33.80	3,162.5	392.9	288.0	487.1	1.62	-1.61	0.54
3,313.0	11.50	34.50	3,254.4	409.2	299.0	506.8	1.29	-1.28	0.74
3,409.0	11.90	36.60	3,348.4	425.1	310.3	526.3	0.61	0.42	2.19
3,499.0	13.20	40.00	3,436.3	440.4	322.5	545.8	1.66	1.44	3.78
3,593.0	13.10	41.20	3,527.8	456.6	336.4	567.1	0.31	-0.11	1.28
3,687.0	15.20	36.60	3,619.0	474.6	350.8	590.0	2.53	2.23	-4.89
3,780.0	17.70	32.80	3,708.2	496.2	365.7	616.3	2.93	2.69	-4.09
3,874.0	18.00	32.10	3,797.6	520.5	381.1	645.1	0.39	0.32	-0.74
3,967.0	17.90	31.90	3,886.1	544.8	396.3	673.7	0.13	-0.11	-0.22
4,060.0	15.90	31.70	3,975.1	567.8	410.6	700.7	2.15	-2.15	-0.22
4,154.0	16.40	32.40	4,065.4	590.0	424.5	726.8	0.57	0.53	0.74
4,247.0	16.40	31.70	4,154.6	612.2	438.4	753.0	0.21	0.00	-0.75
4,340.0	15.00	33.30	4,244.1	633.5	451.9	778.1	1.58	-1.51	1.72
4,434.0	16.30	34.00	4,334.6	654.6	466.0	803.5	1.40	1.38	0.74
4,527.0	15.30	36.10	4,424.1	675.3	480.5	828.8	1.24	-1.08	2.26
4,621.0	14.80	36.80	4,514.9	694.9	495.0	853.2	0.57	-0.53	0.74
4,715.0	13.10	38.20	4,606.1	712.9	508.8	875.8	1.84	-1.81	1.49
4,808.0	13.00	41.00	4,696.7	729.1	522.1	896.8	0.69	-0.11	3.01
4,902.0	12.20	43.20	4,788.5	744.3	535.9	917.1	0.99	-0.85	2.34
4,991.0	12.30	45.10	4,875.4	757.9	549.0	935.8	0.47	0.11	2.13
5,084.0	14.10	34.50	4,966.0	774.2	562.5	956.9	3.24	1.94	-11.40
5,178.0	12.00	33.70	5,057.6	791.8	574.4	978.1	2.24	-2.23	-0.85
5,271.0	10.20	35.40	5,148.8	806.5	584.5	996.0	1.97	-1.94	1.83
5,365.0	8.80	30.80	5,241.5	819.5	593.0	1,011.5	1.69	-1.49	-4.89
5,459.0	6.60	27.90	5,334.7	830.4	599.2	1,024.0	2.38	-2.34	-3.09
5,552.0	5.50	23.30	5,427.1	839.3	603.5	1,033.7	1.29	-1.18	-4.95
5,646.0	4.20	17.50	5,520.8	846.7	606.3	1,041.4	1.48	-1.38	-6.17
5,739.0	3.00	20.10	5,613.6	852.2	608.2	1,047.0	1.30	-1.29	2.80
5,833.0	1.80	18.20	5,707.5	855.9	609.5	1,050.7	1.28	-1.28	-2.02
5,926.0	1.20	31.20	5,800.5	858.1	610.4	1,053.1	0.74	-0.65	13.98
6,020.0	1.00	40.20	5,894.5	859.6	611.5	1,054.9	0.28	-0.21	9.57
6,113.0	0.70	53.90	5,987.5	860.6	612.5	1,056.3	0.39	-0.32	14.73
6,125.5	0.65	56.74	6,000.0	860.7	612.6	1,056.4	0.48	-0.40	22.64
TARGET BHL 1200'FNL, 1200'FEL									
6,207.0	0.40	91.00	6,081.5	860.9	613.2	1,057.0	0.48	-0.31	42.06
6,300.0	0.40	85.30	6,174.5	860.9	613.9	1,057.4	0.04	0.00	-6.13
6,394.0	0.40	32.80	6,268.5	861.2	614.4	1,057.9	0.38	0.00	-55.85
6,487.0	0.10	31.60	6,361.5	861.6	614.6	1,058.3	0.32	-0.32	-1.29

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.32-T5N-R65W
Site: Dickens F32-27D Pad Sec.32-T5N-R65W
Well: Dickens F32-17D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Site Dickens F32-27D Pad Sec.32-T5N-R65W
TVD Reference: WELL @ 4681.0ft (Original Well Elev)
MD Reference: WELL @ 4681.0ft (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)
6,581.0	0.10	117.70	6,455.5	861.6	614.7	1,058.4	0.15	0.00	91.60
6,675.0	0.20	107.30	6,549.5	861.5	615.0	1,058.5	0.11	0.11	-11.06
6,768.0	0.40	124.50	6,642.5	861.3	615.4	1,058.5	0.23	0.22	18.49
6,862.0	0.40	107.70	6,736.5	861.0	616.0	1,058.6	0.12	0.00	-17.87
6,905.9	0.45	106.01	6,780.4	860.9	616.3	1,058.7	0.11	0.11	-3.85
TARGET WINDOW 800' X 800' 1332'FNL, 1322'FEL									
6,906.5	0.45	105.99	6,781.0	860.9	616.3	1,058.7	0.11	0.11	-3.44
TARGET CIRCLE 1200'FNL, 1200'FEL									
6,955.0	0.50	104.50	6,829.5	860.8	616.7	1,058.9	0.11	0.11	-3.07
7,049.0	0.50	112.10	6,923.5	860.5	617.4	1,059.1	0.07	0.00	8.09
7,142.0	0.40	115.00	7,016.5	860.2	618.1	1,059.3	0.11	-0.11	3.12
7,236.0	0.50	83.80	7,110.5	860.1	618.8	1,059.6	0.28	0.11	-33.19
7,340.0	0.50	90.60	7,214.5	860.2	619.7	1,060.2	0.06	0.00	6.54
7,388.0	0.50	90.60	7,262.4	860.2	620.1	1,060.4	0.00	0.00	0.00

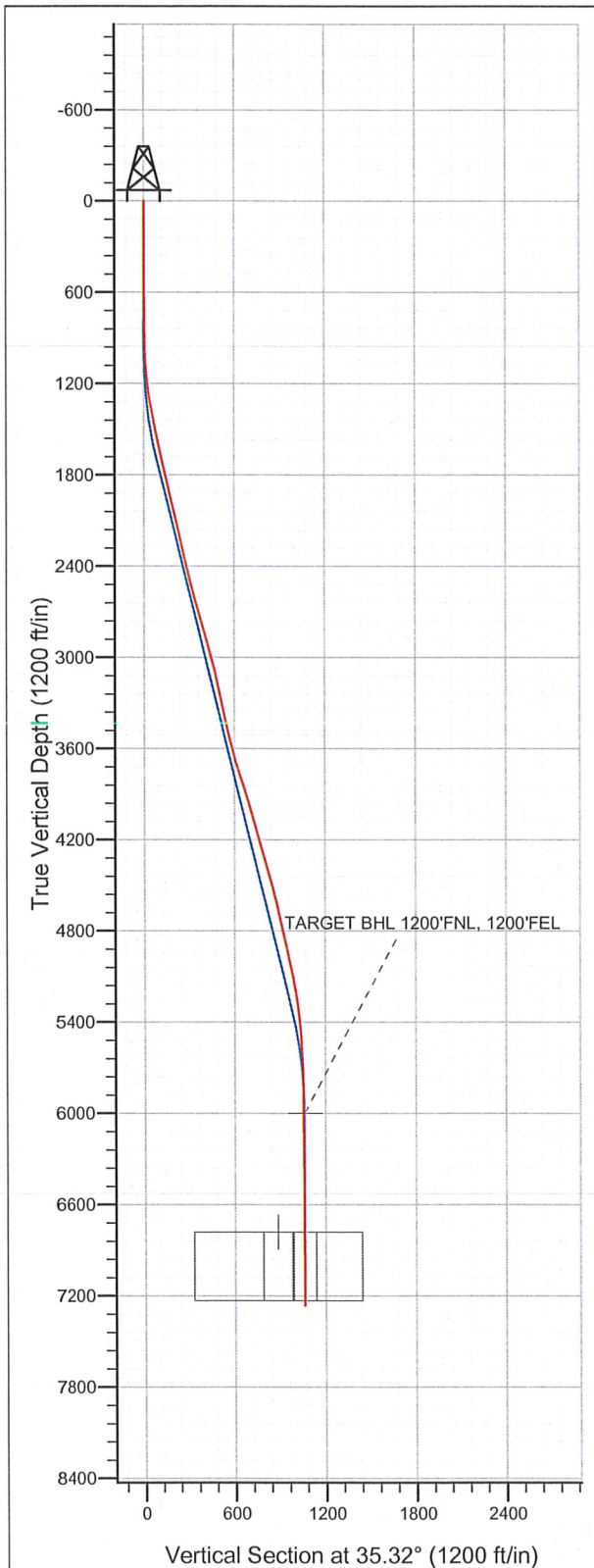
Checked By: _____ Approved By: _____ Date: _____



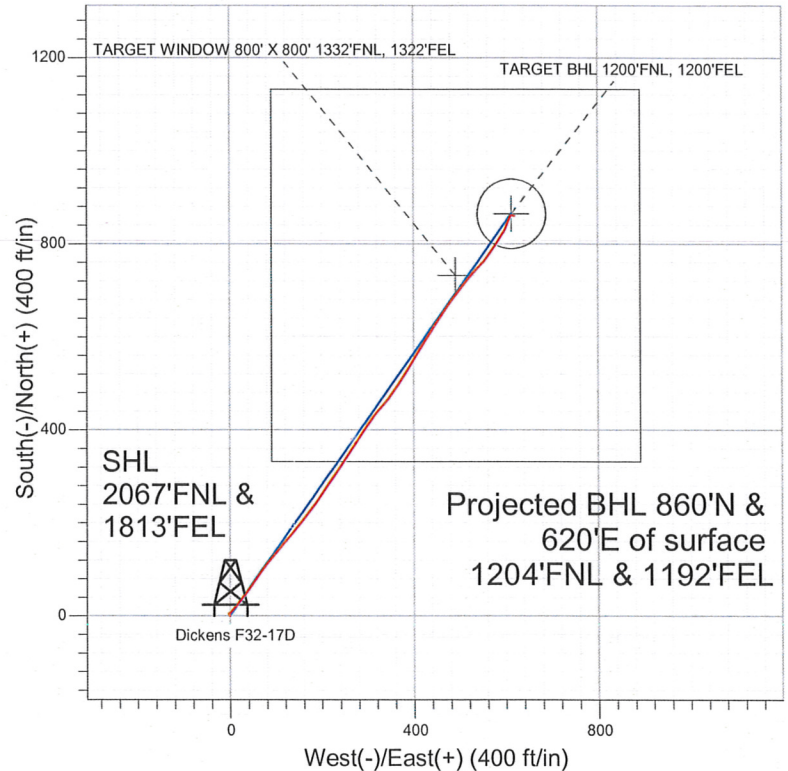
Well Name: Dickens F32-17D

Surface Location: Dickens F32-27D Pad Sec.32-T5N-R65W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4668.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1374086.80	3227303.73	40.357400	-104.684360	
Original Well Elev				WELL @ 4681.0ft (Original Well Elev)		



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Dickens F32-17D, Wellbore #1, Noble Dickens F32-17D Plan #2 (1-26-10) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7388'MD & 7262'TVD @ 1060°VS
0.50 deg Inc 90.60 deg AZ

Project: SEC.32-T5N-R65W
Site: Dickens F32-27D Pad Sec.32-T5N-R65W
Well: Dickens F32-17D
Plan: Wellbore #1



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.32-T5N-R65W

Dickens F32-27D Pad Sec.32-T5N-R65W

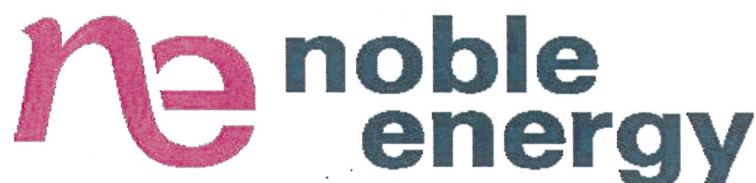
Dickens F32-17D

Wellbore #1

Survey: Survey #1

Standard Survey Report

20 February, 2012



Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.32-T5N-R65W
 Site: Dickens F32-27D Pad Sec.32-T5N-R65W
 Well: Dickens F32-17D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Site Dickens F32-27D Pad Sec.32-T5N-R65W
 TVD Reference: WELL @ 4681.0ft (Original Well Elev)
 MD Reference: WELL @ 4681.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: Landmark

Project SEC.32-T5N-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 Dickens F32-27D Pad Sec.32-T5N-R65W

Site Position:	Northing: 1,374,086.80 ft	Latitude: 40.357400
From: Lat/Long	Easting: 3,227,303.73 ft	Longitude: -104.684360
Position Uncertainty: 0.0 ft	Slot Radius: "	Grid Convergence: 0.53 °

Well Dickens F32-17D

Well Position	+N/-S 0.0 ft	Northing: 1,374,086.80 ft	Latitude: 40.357400
	+E/-W 0.0 ft	Easting: 3,227,303.73 ft	Longitude: -104.684360
Position Uncertainty	0.0 ft	Wellhead Elevation: ft	Ground Level: 4,668.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/4/2012	8.70	67.02	53,084

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	35.32

Survey Program Date 2/19/2012

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
625.0	7,388.0	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
625.0	0.50	328.10	625.0	2.3	-1.4	1.1	0.08	0.08	0.00
688.0	0.70	307.50	688.0	2.8	-1.9	1.2	0.46	0.32	-32.70
781.0	0.70	328.40	781.0	3.6	-2.6	1.4	0.27	0.00	22.47
875.0	0.40	38.20	875.0	4.4	-2.7	2.0	0.72	-0.32	74.26
968.0	2.20	57.60	968.0	5.6	-1.0	4.0	1.97	1.94	20.86
1,062.0	3.90	41.00	1,061.8	8.9	2.6	8.8	2.02	1.81	-17.66
1,156.0	6.00	43.30	1,155.5	14.9	8.1	16.8	2.24	2.23	2.45
1,251.0	8.40	40.20	1,249.7	23.8	15.9	28.7	2.56	2.53	-3.26
1,345.0	10.90	37.40	1,342.4	36.2	25.8	44.4	2.71	2.66	-2.98
1,439.0	11.30	34.20	1,434.6	50.8	36.3	62.5	0.78	0.43	-3.40
1,533.0	11.70	37.90	1,526.7	66.0	47.4	81.2	0.89	0.43	3.94
1,626.0	12.40	34.20	1,617.7	81.7	58.8	100.6	1.12	0.75	-3.98

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.32-T5N-R65W
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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)
1,719.0	12.60	34.70	1,708.5	98.3	70.2	120.8	0.24	0.22	0.54
1,813.0	13.00	39.10	1,800.1	114.9	82.7	141.6	1.12	0.43	4.68
1,907.0	13.20	40.70	1,891.7	131.2	96.3	162.8	0.44	0.21	1.70
2,002.0	12.60	40.00	1,984.3	147.4	110.1	183.9	0.65	-0.63	-0.74
2,096.0	13.70	43.50	2,075.8	163.3	124.3	205.2	1.44	1.17	3.72
2,189.0	13.90	38.40	2,166.1	180.1	138.9	227.2	1.33	0.22	-5.48
2,283.0	13.50	37.00	2,257.5	197.7	152.5	249.5	0.55	-0.43	-1.49
2,378.0	13.40	36.60	2,349.9	215.4	165.7	271.5	0.14	-0.11	-0.42
2,471.0	12.80	38.60	2,440.4	232.1	178.6	292.6	0.81	-0.65	2.15
2,565.0	13.90	36.10	2,531.9	249.3	191.7	314.3	1.32	1.17	-2.66
2,658.0	16.40	34.50	2,621.7	269.2	205.7	338.6	2.73	2.69	-1.72
2,752.0	17.00	34.00	2,711.7	291.5	220.9	365.6	0.66	0.64	-0.53
2,846.0	15.50	32.40	2,801.9	313.5	235.3	391.9	1.67	-1.60	-1.70
2,939.0	15.60	34.20	2,891.5	334.4	249.0	416.8	0.53	0.11	1.94
3,032.0	15.30	33.50	2,981.2	354.9	262.8	441.6	0.38	-0.32	-0.75
3,126.0	14.20	33.30	3,072.1	374.9	276.0	465.5	1.17	-1.17	-0.21
3,219.0	12.70	33.80	3,162.5	392.9	288.0	487.1	1.62	-1.61	0.54
3,313.0	11.50	34.50	3,254.4	409.2	299.0	506.8	1.29	-1.28	0.74
3,409.0	11.90	36.60	3,348.4	425.1	310.3	526.3	0.61	0.42	2.19
3,499.0	13.20	40.00	3,436.3	440.4	322.5	545.8	1.66	1.44	3.78
3,593.0	13.10	41.20	3,527.8	456.6	336.4	567.1	0.31	-0.11	1.28
3,687.0	15.20	36.60	3,619.0	474.6	350.8	590.0	2.53	2.23	-4.89
3,780.0	17.70	32.80	3,708.2	496.2	365.7	616.3	2.93	2.69	-4.09
3,874.0	18.00	32.10	3,797.6	520.5	381.1	645.1	0.39	0.32	-0.74
3,967.0	17.90	31.90	3,886.1	544.8	396.3	673.7	0.13	-0.11	-0.22
4,060.0	15.90	31.70	3,975.1	567.8	410.6	700.7	2.15	-2.15	-0.22
4,154.0	16.40	32.40	4,065.4	590.0	424.5	726.8	0.57	0.53	0.74
4,247.0	16.40	31.70	4,154.6	612.2	438.4	753.0	0.21	0.00	-0.75
4,340.0	15.00	33.30	4,244.1	633.5	451.9	778.1	1.58	-1.51	1.72
4,434.0	16.30	34.00	4,334.6	654.6	466.0	803.5	1.40	1.38	0.74
4,527.0	15.30	36.10	4,424.1	675.3	480.5	828.8	1.24	-1.08	2.26
4,621.0	14.80	36.80	4,514.9	694.9	495.0	853.2	0.57	-0.53	0.74
4,715.0	13.10	38.20	4,606.1	712.9	508.8	875.8	1.84	-1.81	1.49
4,808.0	13.00	41.00	4,696.7	729.1	522.1	896.8	0.69	-0.11	3.01
4,902.0	12.20	43.20	4,788.5	744.3	535.9	917.1	0.99	-0.85	2.34
4,991.0	12.30	45.10	4,875.4	757.9	549.0	935.8	0.47	0.11	2.13
5,084.0	14.10	34.50	4,966.0	774.2	562.5	956.9	3.24	1.94	-11.40
5,178.0	12.00	33.70	5,057.6	791.8	574.4	978.1	2.24	-2.23	-0.85
5,271.0	10.20	35.40	5,148.8	806.5	584.5	996.0	1.97	-1.94	1.83
5,365.0	8.80	30.80	5,241.5	819.5	593.0	1,011.5	1.69	-1.49	-4.89
5,459.0	6.60	27.90	5,334.7	830.4	599.2	1,024.0	2.38	-2.34	-3.09
5,552.0	5.50	23.30	5,427.1	839.3	603.5	1,033.7	1.29	-1.18	-4.95
5,646.0	4.20	17.50	5,520.8	846.7	606.3	1,041.4	1.48	-1.38	-6.17
5,739.0	3.00	20.10	5,613.6	852.2	608.2	1,047.0	1.30	-1.29	2.80
5,833.0	1.80	18.20	5,707.5	855.9	609.5	1,050.7	1.28	-1.28	-2.02
5,926.0	1.20	31.20	5,800.5	858.1	610.4	1,053.1	0.74	-0.65	13.98
6,020.0	1.00	40.20	5,894.5	859.6	611.5	1,054.9	0.28	-0.21	9.57
6,113.0	0.70	53.90	5,987.5	860.6	612.5	1,056.3	0.39	-0.32	14.73
6,125.5	0.65	56.74	6,000.0	860.7	612.6	1,056.4	0.48	-0.40	22.64
TARGET BHL 1200'FNL, 1200'FEL									
6,207.0	0.40	91.00	6,081.5	860.9	613.2	1,057.0	0.48	-0.31	42.06
6,300.0	0.40	85.30	6,174.6	860.9	613.9	1,057.4	0.04	0.00	-6.13
6,394.0	0.40	32.80	6,268.5	861.2	614.4	1,057.9	0.38	0.00	-55.85
6,487.0	0.10	31.60	6,361.5	861.6	614.6	1,058.3	0.32	-0.32	-1.29

Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.32-T5N-R65W
Site: Dickens F32-27D Pad Sec.32-T5N-R65W
Well: Dickens F32-17D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Site Dickens F32-27D Pad Sec.32-T5N-R65W
TVD Reference: WELL @ 4681.0ft (Original Well Elev)
MD Reference: WELL @ 4681.0ft (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)
6,581.0	0.10	117.70	6,455.5	861.6	614.7	1,058.4	0.15	0.00	91.60
6,675.0	0.20	107.30	6,549.5	861.5	615.0	1,058.5	0.11	0.11	-11.06
6,768.0	0.40	124.50	6,642.5	861.3	615.4	1,058.5	0.23	0.22	18.49
6,862.0	0.40	107.70	6,736.5	861.0	616.0	1,058.6	0.12	0.00	-17.87
6,905.9	0.45	106.01	6,780.4	860.9	616.3	1,058.7	0.11	0.11	-3.85
TARGET WINDOW 800' X 800' 1332'FNL, 1322'FEL									
6,906.5	0.45	105.99	6,781.0	860.9	616.3	1,058.7	0.11	0.11	-3.44
TARGET CIRCLE 1200'FNL, 1200'FEL									
6,955.0	0.50	104.50	6,829.5	860.8	616.7	1,058.9	0.11	0.11	-3.07
7,049.0	0.50	112.10	6,923.5	860.5	617.4	1,059.1	0.07	0.00	8.09
7,142.0	0.40	115.00	7,016.5	860.2	618.1	1,059.3	0.11	-0.11	3.12
7,236.0	0.50	83.80	7,110.5	860.1	618.8	1,059.6	0.28	0.11	-33.19
7,340.0	0.50	90.60	7,214.5	860.2	619.7	1,060.2	0.06	0.00	6.54
7,388.0	0.50	90.60	7,262.4	860.2	620.1	1,060.4	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____