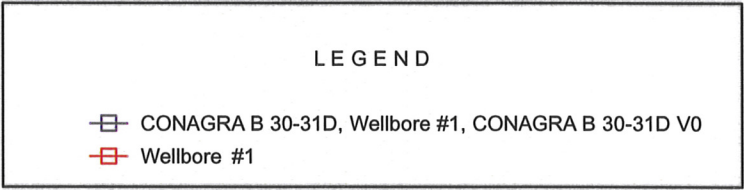
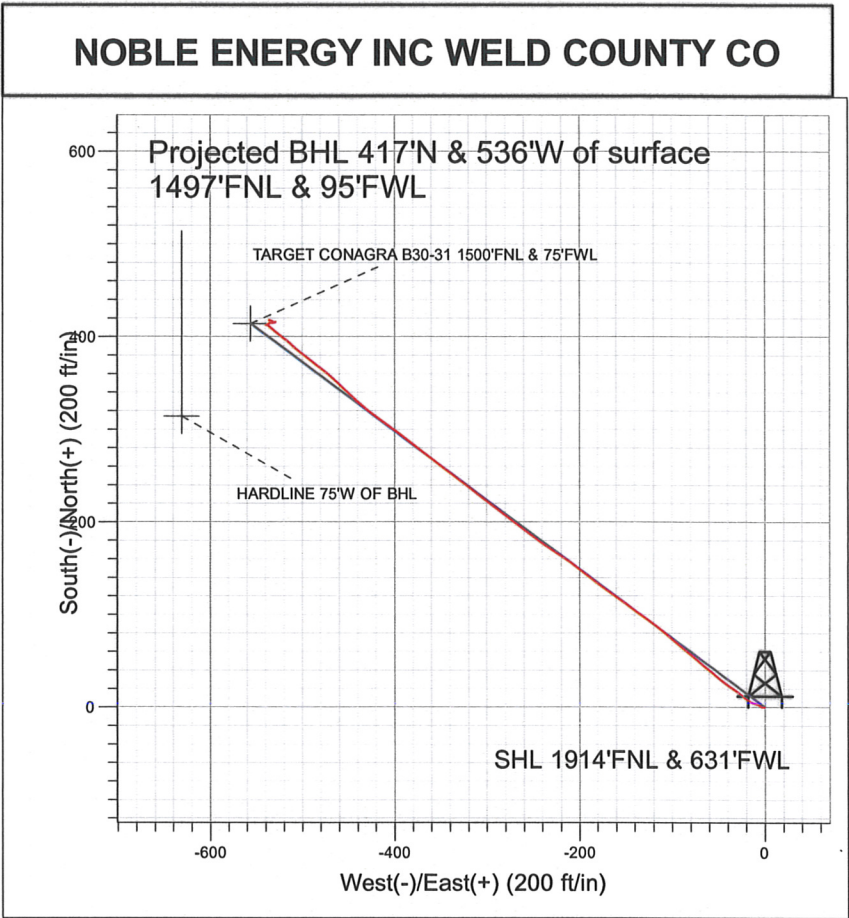
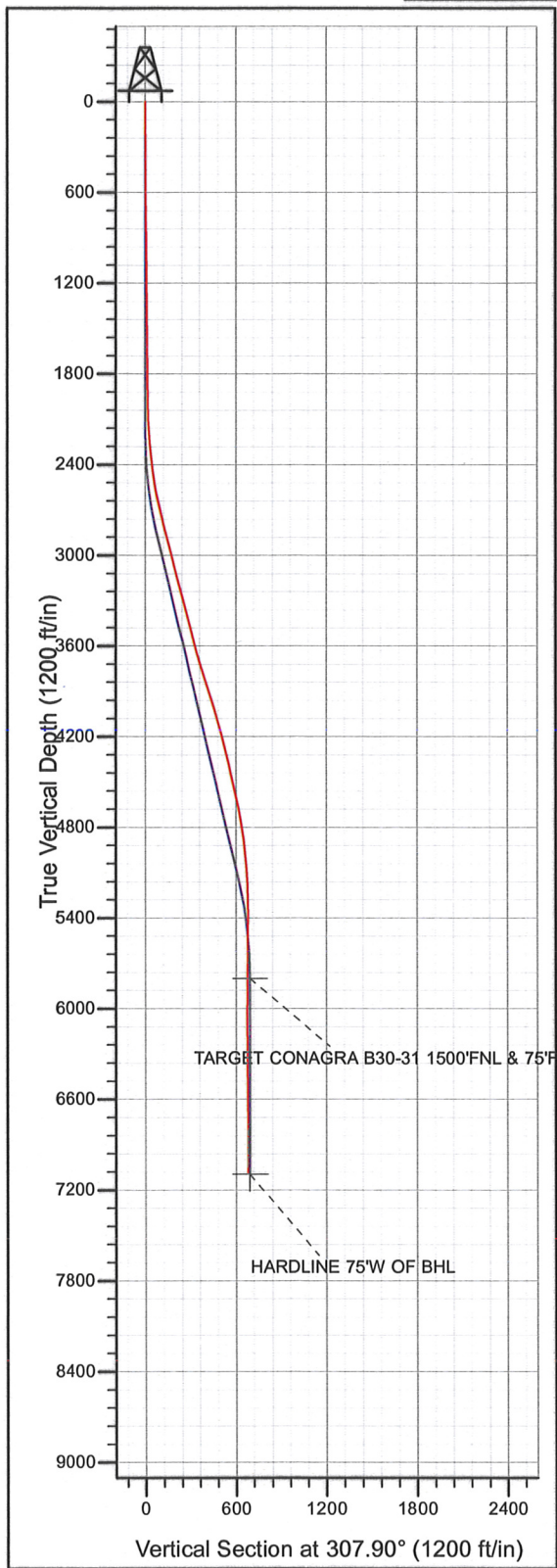


Well Name: CONAGRA B 30-31 D
 Surface Location: CONAGRA B 31 & 32 PAD SEC.30-T5N-R64W
 North American Datum 1983, US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4684.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1379677.17 3250838.90 40° 22' 19.632 N 104° 35' 58.956 W
 Original Well Elev WELL @ 4697.0ft (Original Well Elev)



Final Survey Plot

Projected Final Survey -
 7170'MD & 7091.5'TVD @ 679.5' VS
 0.1 deg Inc 34.7 deg AZ

Project: SEC.30-T5N-R64W
 Site: CONAGRA B 31 & 32 PAD SEC.30-T5N-R64W
 Well: CONAGRA B 30-31D
 Plan: Wellbore #1



Directional

**NOBLE ENERGY INC WELD
COUNTY CO**

SEC.30-T5N-R64W

CONAGRA B 31 & 32 PAD SEC.30-T5N-R64W

CONAGRA B 30-31D

Wellbore #1

Design: Wellbore #1

Standard Survey Report

12 May, 2009



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well CONAGRA B 30-31D
Project:	SEC.30-T5N-R64W	TVD Reference:	WELL @ 4697.0ft (Original Well Elev)
Site:	CONAGRA B 31 & 32 PAD SEC.30-T5N-R64W	MD Reference:	WELL @ 4697.0ft (Original Well Elev)
Well:	CONAGRA B 30-31D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM den0-adp01 Server Data

Project	SEC.30-T5N-R64W		
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	CONAGRA B 31 & 32 PAD SEC.30-T5N-R64W				
Site Position:		Northing:	1,379,666.48 ft	Latitude:	40° 22' 19.524 N
From:	Lat/Long	Easting:	3,250,861.30 ft	Longitude:	104° 35' 58.668 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.58 °

Well	CONAGRA B 30-31D					
Well Position	+N/-S	0.0 ft	Northing:	1,379,677.17 ft	Latitude:	40° 22' 19.632 N
	+E/-W	0.0 ft	Easting:	3,250,838.90 ft	Longitude:	104° 35' 58.956 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,684.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/23/2008	9.20	67.18	53,509
	IGRF200510	5/1/2009	9.02	67.14	53,378

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	307.90	

Survey Program	Date 5/12/2009				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
433.0	7,170.0	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
433.0	0.40	271.80	433.0	0.0	-1.5	1.2	0.09	0.09	0.00
603.0	0.40	275.40	603.0	0.1	-2.7	2.2	0.01	0.00	2.12
774.0	0.40	292.50	774.0	0.4	-3.8	3.3	0.07	0.00	10.00
945.0	0.50	322.40	945.0	1.2	-4.8	4.6	0.15	0.06	17.49
1,116.0	0.30	302.10	1,116.0	2.1	-5.7	5.7	0.14	-0.12	-11.87
1,287.0	0.70	295.50	1,287.0	2.7	-7.0	7.2	0.24	0.23	-3.86
1,458.0	0.50	282.90	1,458.0	3.4	-8.7	8.9	0.14	-0.12	-7.37
1,628.0	0.60	281.80	1,628.0	3.7	-10.3	10.4	0.06	0.06	-0.65
1,799.0	0.70	279.40	1,798.9	4.1	-12.2	12.1	0.06	0.06	-1.40
1,970.0	0.70	295.00	1,969.9	4.7	-14.2	14.0	0.11	0.00	9.12

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well CONAGRA B 30-31D
Project:	SEC.30-T5N-R64W	TVD Reference:	WELL @ 4697.0ft (Original Well Elev)
Site:	CONAGRA B 31 & 32 PAD SEC.30-T5N-R64W	MD Reference:	WELL @ 4697.0ft (Original Well Elev)
Well:	CONAGRA B 30-31D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM den0-adp01 Server Data

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)
2,056.0	2.20	307.80	2,055.9	5.9	-15.9	16.2	1.77	1.74	14.88
2,141.0	3.30	309.40	2,140.8	8.5	-19.1	20.3	1.30	1.29	1.88
2,227.0	4.60	308.70	2,226.6	12.2	-23.7	26.2	1.51	1.51	-0.81
2,312.0	5.80	305.20	2,311.2	16.8	-29.9	33.9	1.46	1.41	-4.12
2,398.0	6.90	306.10	2,396.7	22.3	-37.6	43.4	1.28	1.28	1.05
2,483.0	8.40	307.10	2,481.0	29.1	-46.7	54.7	1.77	1.76	1.18
2,569.0	10.10	311.20	2,565.8	37.9	-57.4	68.5	2.12	1.98	4.77
2,654.0	11.60	309.10	2,649.3	48.2	-69.6	84.5	1.82	1.76	-2.47
2,740.0	13.50	309.00	2,733.3	59.9	-84.1	103.2	2.21	2.21	-0.12
2,825.0	14.50	312.50	2,815.7	73.4	-99.7	123.7	1.54	1.18	4.12
2,911.0	14.10	307.30	2,899.1	87.0	-116.0	144.9	1.56	-0.47	-6.05
2,996.0	15.60	306.00	2,981.2	100.0	-133.4	166.7	1.81	1.76	-1.53
3,082.0	14.50	304.50	3,064.3	112.9	-151.7	189.0	1.36	-1.28	-1.74
3,167.0	13.90	305.70	3,146.7	124.9	-168.7	209.8	0.79	-0.71	1.41
3,253.0	14.40	308.90	3,230.1	137.6	-185.4	230.9	1.08	0.58	3.72
3,338.0	14.70	307.00	3,312.3	150.7	-202.3	252.2	0.66	0.35	-2.24
3,424.0	14.50	303.10	3,395.6	163.2	-220.0	273.8	1.17	-0.23	-4.53
3,509.0	14.40	305.50	3,477.9	175.1	-237.5	295.0	0.71	-0.12	2.82
3,595.0	14.90	306.70	3,561.1	187.9	-255.1	316.7	0.68	0.58	1.40
3,680.0	15.90	307.80	3,643.0	201.6	-273.1	339.3	1.23	1.18	1.29
3,766.0	17.10	307.20	3,725.5	216.5	-292.4	363.7	1.41	1.40	-0.70
3,851.0	17.50	307.30	3,806.6	231.8	-312.6	389.0	0.47	0.47	0.12
3,937.0	18.10	307.70	3,888.5	247.8	-333.4	415.3	0.71	0.70	0.47
4,022.0	17.50	307.30	3,969.5	263.6	-354.0	441.3	0.72	-0.71	-0.47
4,107.0	15.60	308.10	4,050.9	278.4	-373.2	465.5	2.25	-2.24	0.94
4,193.0	16.10	307.00	4,133.7	292.7	-391.8	489.0	0.68	0.58	-1.28
4,278.0	14.90	305.50	4,215.6	306.1	-410.1	511.7	1.49	-1.41	-1.76
4,364.0	13.20	307.10	4,299.0	318.5	-427.0	532.6	2.03	-1.98	1.86
4,449.0	12.30	312.60	4,381.9	330.5	-441.4	551.3	1.78	-1.06	6.47
4,535.0	12.70	314.50	4,465.9	343.3	-454.9	569.8	0.67	0.47	2.21
4,620.0	13.50	311.30	4,548.7	356.4	-469.0	589.0	1.27	0.94	-3.76
4,706.0	11.70	307.00	4,632.6	368.3	-483.5	607.7	2.36	-2.09	-5.00
4,791.0	10.60	306.80	4,716.0	378.1	-496.6	624.2	1.29	-1.29	-0.24
4,877.0	8.70	311.10	4,800.8	387.2	-507.9	638.6	2.36	-2.21	5.00
4,962.0	7.30	312.20	4,884.9	395.0	-516.7	650.4	1.66	-1.65	1.29
5,048.0	5.90	304.80	4,970.4	401.2	-524.4	660.2	1.90	-1.63	-8.60
5,133.0	5.10	312.30	5,055.0	406.2	-530.8	668.4	1.26	-0.94	8.82
5,219.0	3.20	312.00	5,140.7	410.4	-535.4	674.6	2.21	-2.21	-0.35
5,304.0	1.10	278.10	5,225.7	412.1	-537.9	677.6	2.79	-2.47	-39.88
5,390.0	1.00	300.00	5,311.7	412.6	-539.4	679.1	0.48	-0.12	25.47
5,475.0	0.90	90.00	5,396.7	413.0	-539.4	679.3	2.16	-0.12	176.47
5,561.0	1.20	88.60	5,482.6	413.0	-537.8	678.1	0.35	0.35	-1.63
5,646.0	0.90	42.70	5,567.6	413.5	-536.5	677.3	1.02	-0.35	-54.00
5,732.0	0.90	47.70	5,653.6	414.5	-535.5	677.2	0.09	0.00	5.81
5,817.0	0.60	117.40	5,738.6	414.7	-534.6	676.6	1.05	-0.35	82.00
5,878.0	0.97	91.66	5,799.6	414.5	-533.8	675.9	0.82	0.60	-42.24
TARGET CONAGRA B30-31 1500'FNL & 75'FWL									
5,988.0	1.80	76.50	5,909.6	414.9	-531.2	674.1	0.82	0.76	-13.77
6,159.0	0.90	262.40	6,080.6	415.4	-529.9	673.3	1.58	-0.53	-101.81
6,330.0	0.70	302.60	6,251.5	415.8	-532.1	675.3	0.34	-0.12	23.51
6,501.0	0.30	317.90	6,422.5	416.7	-533.3	676.8	0.24	-0.23	8.95
6,671.0	0.30	283.10	6,592.5	417.1	-534.1	677.6	0.11	0.00	-20.47
6,842.0	0.40	276.10	6,763.5	417.3	-535.1	678.5	0.06	0.06	-4.09

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well CONAGRA B 30-31D
Project:	SEC.30-T5N-R64W	TVD Reference:	WELL @ 4697.0ft (Original Well Elev)
Site:	CONAGRA B 31 & 32 PAD	MD Reference:	WELL @ 4697.0ft (Original Well Elev)
Well:	CONAGRA B 30-31D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM den0-adp01 Server Data

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)
7,013.0	0.30	270.10	6,934.5	417.3	-536.1	679.4	0.06	-0.06	-3.51
7,122.0	0.10	34.70	7,043.5	417.4	-536.4	679.6	0.34	-0.18	114.31
7,170.0	0.10	34.70	7,091.5	417.5	-536.3	679.6	0.00	0.00	0.00
HARDLINE 75°W OF BHL									

Wellbore Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TARGET CONAGRA - actual wellpath misses target center by 22.2ft at 5878.0ft MD (5799.6 TVD, 414.5 N, -533.8 E) - Point	0.00	0.00	5,800.0	414.0	-556.0	1,380,085.49	3,250,278.75	40° 22' 23.723 N	104° 36' 6.140 W
HARDLINE 75°W OF I - actual wellpath misses target center by 140.3ft at 7170.0ft MD (7091.5 TVD, 417.5 N, -536.3 E) - Polygon	0.00	0.00	7,094.0	314.0	-631.0	1,379,984.74	3,250,204.77	40° 22' 22.735 N	104° 36' 7.109 W
Point 1			7,094.0	0.0	0.0	1,379,984.74	3,250,204.77		
Point 2			7,094.0	200.0	0.0	1,380,184.72	3,250,202.74		

Checked By: _____	Approved By: _____	Date: _____
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