

ENSIGN

Directional

Well Name: Booth USX EE35-05D

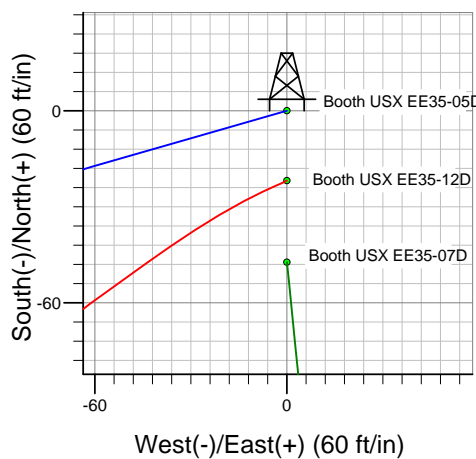
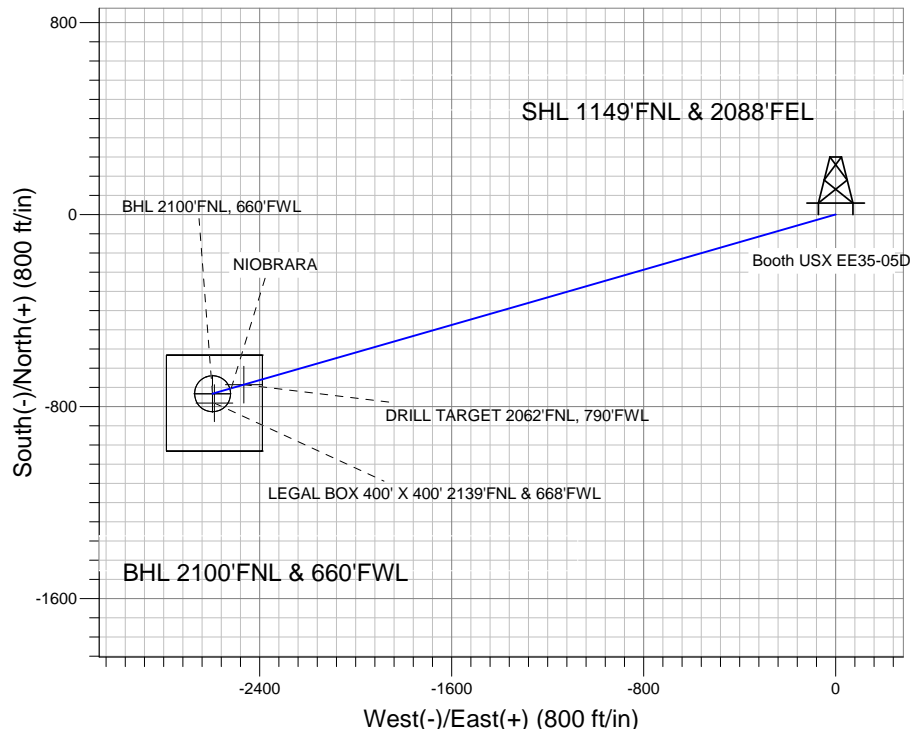
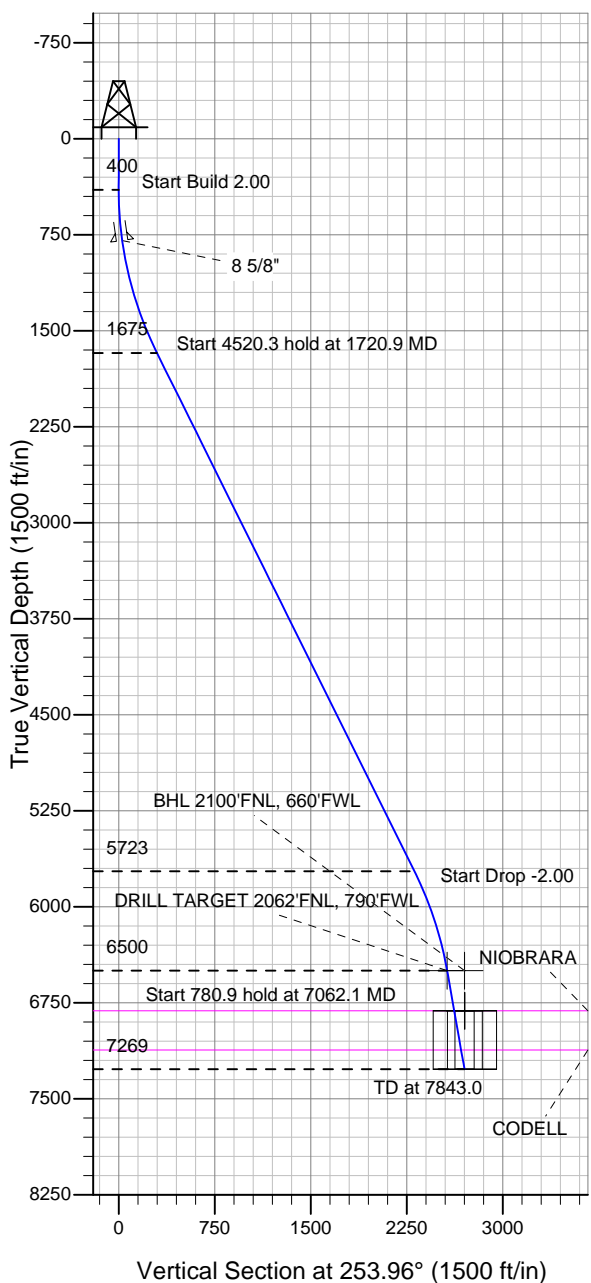
Surface Location: Booth USX EE35-05D Pad Sec.35-T7N-R65W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4831.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1438878.23	3242365.70	40.534850	-104.628030	

Original Well Elev WELL @ 4844.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Booth USX EE35-05D Pad Sec.35-T7N-R65W
Booth USX EE35-05D
Noble Booth USX EE35-05D Plan #1 (7-13-11)
12:31, July 19 2011



Azimuths to True North
Magnetic North: 8.79°

Magnetic Field
Strength: 53208.6snT
Dip Angle: 67.18°
Date: 7/13/2011
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BHL 2100'FNL, 660'FWL	6500.0	-746.7	-2596.3	40.532800	-104.637370	Point
DRILL TARGET 2062'FNL, 790'FWL	6500.0	-709.2	-2466.0	40.532903	-104.636901	Point
LEGAL BOX 400' X 400' 2139'FNL & 668'FWL	6814.0	-785.7	-2588.3	40.532693	-104.637341	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 2100'FNL & 660'FWL	6814.0	-746.7	-2596.3	40.532800	-104.637370	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	1720.9	26.42	253.96	1674.6	-82.7	-287.5	2.00	253.96	299.2	
4	6241.2	26.42	253.96	5722.9	-638.5	-2220.3	0.00	0.00	2310.3	
5	7062.1	10.00	253.96	6500.0	-709.2	-2466.0	2.00	180.00	2566.0	DRILL TARGET 2062'FNL, 790'FWL
6	7843.0	10.00	253.96	7269.0	-746.7	-2596.3	0.00	0.00	2701.5	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.35-T7N-R65W

Booth USX EE35-05D Pad Sec.35-T7N-R65W

Booth USX EE35-05D

Wellbore #1

Plan: Noble Booth USX EE35-05D Plan #1 (7-13-11)

Standard Planning Report

19 July, 2011



Database:	Landmark	Local Co-ordinate Reference:	Well Booth USX EE35-05D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4844.0ft (Original Well Elev)
Project:	SEC.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	North Reference:	True
Well:	Booth USX EE35-05D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Booth USX EE35-05D Plan #1 (7-13-11)		

Project	SEC.35-T7N-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 Booth USX EE35-05D Pad Sec.35-T7N-R65W					
Site Position:		Northing:		Latitude:	
From:	Lat/Long	Easting:		Longitude:	
Position Uncertainty:	0.0 ft	Slot Radius:		Grid Convergence:	
		1,438,878.24 ft		40.534850	
		3,242,365.69 ft		-104.628030	
		"		0.56 °	

Well	Booth USX EE35-05D					
Well Position	+N/-S	0.0 ft	Northing:	1,438,878.23 ft	Latitude:	40.534850
	+E/-W	0.0 ft	Easting:	3,242,365.70 ft	Longitude:	-104.628030
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,831.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/13/2011	8.79	67.18	53,209

Design	Noble Booth USX EE35-05D Plan #1 (7-13-11)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	253.96

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,720.9	26.42	253.96	1,674.6	-82.7	-287.5	2.00	2.00	0.00	253.96	
6,241.2	26.42	253.96	5,722.9	-638.5	-2,220.3	0.00	0.00	0.00	0.00	
7,062.1	10.00	253.96	6,500.0	-709.2	-2,466.0	2.00	-2.00	0.00	180.00	DRILL TARGET 20
7,843.0	10.00	253.96	7,269.0	-746.7	-2,596.3	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Booth USX EE35-05D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4844.0ft (Original Well Elev)
Project:	SEC.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	North Reference:	True
Well:	Booth USX EE35-05D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Booth USX EE35-05D Plan #1 (7-13-11)		

Planned 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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.80	253.96	440.0	-0.1	-0.3	0.3	2.00	2.00	0.00
480.0	1.60	253.96	480.0	-0.3	-1.1	1.1	2.00	2.00	0.00
520.0	2.40	253.96	520.0	-0.7	-2.4	2.5	2.00	2.00	0.00
560.0	3.20	253.96	559.9	-1.2	-4.3	4.5	2.00	2.00	0.00
600.0	4.00	253.96	599.8	-1.9	-6.7	7.0	2.00	2.00	0.00
640.0	4.80	253.96	639.7	-2.8	-9.7	10.0	2.00	2.00	0.00
680.0	5.60	253.96	679.6	-3.8	-13.1	13.7	2.00	2.00	0.00
720.0	6.40	253.96	719.3	-4.9	-17.2	17.9	2.00	2.00	0.00
760.0	7.20	253.96	759.1	-6.2	-21.7	22.6	2.00	2.00	0.00
796.3	7.93	253.96	795.0	-7.6	-26.3	27.4	2.00	2.00	0.00
8 5/8"									
800.0	8.00	253.96	798.7	-7.7	-26.8	27.9	2.00	2.00	0.00
840.0	8.80	253.96	838.3	-9.3	-32.4	33.7	2.00	2.00	0.00
880.0	9.60	253.96	877.8	-11.1	-38.6	40.1	2.00	2.00	0.00
920.0	10.40	253.96	917.1	-13.0	-45.2	47.1	2.00	2.00	0.00
960.0	11.20	253.96	956.4	-15.1	-52.4	54.6	2.00	2.00	0.00
1,000.0	12.00	253.96	995.6	-17.3	-60.2	62.6	2.00	2.00	0.00
1,040.0	12.80	253.96	1,034.7	-19.7	-68.4	71.2	2.00	2.00	0.00
1,080.0	13.60	253.96	1,073.6	-22.2	-77.2	80.3	2.00	2.00	0.00
1,120.0	14.40	253.96	1,112.4	-24.9	-86.5	90.0	2.00	2.00	0.00
1,160.0	15.20	253.96	1,151.1	-27.7	-96.3	100.2	2.00	2.00	0.00
1,200.0	16.00	253.96	1,189.6	-30.7	-106.7	111.0	2.00	2.00	0.00
1,240.0	16.80	253.96	1,228.0	-33.8	-117.5	122.3	2.00	2.00	0.00
1,280.0	17.60	253.96	1,266.2	-37.1	-128.9	134.1	2.00	2.00	0.00
1,320.0	18.40	253.96	1,304.3	-40.5	-140.8	146.5	2.00	2.00	0.00
1,360.0	19.20	253.96	1,342.1	-44.0	-153.1	159.3	2.00	2.00	0.00
1,400.0	20.00	253.96	1,379.8	-47.8	-166.0	172.8	2.00	2.00	0.00
1,440.0	20.80	253.96	1,417.3	-51.6	-179.4	186.7	2.00	2.00	0.00
1,480.0	21.60	253.96	1,454.6	-55.6	-193.3	201.2	2.00	2.00	0.00
1,520.0	22.40	253.96	1,491.7	-59.7	-207.7	216.2	2.00	2.00	0.00
1,560.0	23.20	253.96	1,528.6	-64.0	-222.6	231.7	2.00	2.00	0.00
1,600.0	24.00	253.96	1,565.2	-68.5	-238.0	247.7	2.00	2.00	0.00
1,640.0	24.80	253.96	1,601.6	-73.0	-253.9	264.2	2.00	2.00	0.00
1,680.0	25.60	253.96	1,637.8	-77.7	-270.3	281.2	2.00	2.00	0.00
1,720.0	26.40	253.96	1,673.8	-82.6	-287.1	298.8	2.00	2.00	0.00
1,720.9	26.42	253.96	1,674.6	-82.7	-287.5	299.2	2.00	2.00	0.00
1,760.0	26.42	253.96	1,709.6	-87.5	-304.2	316.6	0.00	0.00	0.00
1,800.0	26.42	253.96	1,745.4	-92.4	-321.3	334.4	0.00	0.00	0.00
1,840.0	26.42	253.96	1,781.3	-97.3	-338.4	352.2	0.00	0.00	0.00
1,880.0	26.42	253.96	1,817.1	-102.2	-355.5	369.9	0.00	0.00	0.00
1,920.0	26.42	253.96	1,852.9	-107.2	-372.6	387.7	0.00	0.00	0.00
1,960.0	26.42	253.96	1,888.7	-112.1	-389.7	405.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Booth USX EE35-05D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4844.0ft (Original Well Elev)
Project:	SEC.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	North Reference:	True
Well:	Booth USX EE35-05D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Booth USX EE35-05D Plan #1 (7-13-11)		

Planned 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)
2,000.0	26.42	253.96	1,924.5	-117.0	-406.8	423.3	0.00	0.00	0.00
2,040.0	26.42	253.96	1,960.4	-121.9	-424.0	441.1	0.00	0.00	0.00
2,080.0	26.42	253.96	1,996.2	-126.8	-441.1	458.9	0.00	0.00	0.00
2,120.0	26.42	253.96	2,032.0	-131.8	-458.2	476.7	0.00	0.00	0.00
2,160.0	26.42	253.96	2,067.8	-136.7	-475.3	494.5	0.00	0.00	0.00
2,200.0	26.42	253.96	2,103.7	-141.6	-492.4	512.3	0.00	0.00	0.00
2,240.0	26.42	253.96	2,139.5	-146.5	-509.5	530.1	0.00	0.00	0.00
2,280.0	26.42	253.96	2,175.3	-151.4	-526.6	547.9	0.00	0.00	0.00
2,320.0	26.42	253.96	2,211.1	-156.4	-543.7	565.7	0.00	0.00	0.00
2,360.0	26.42	253.96	2,247.0	-161.3	-560.8	583.5	0.00	0.00	0.00
2,400.0	26.42	253.96	2,282.8	-166.2	-577.9	601.3	0.00	0.00	0.00
2,440.0	26.42	253.96	2,318.6	-171.1	-595.0	619.1	0.00	0.00	0.00
2,480.0	26.42	253.96	2,354.4	-176.0	-612.1	636.9	0.00	0.00	0.00
2,520.0	26.42	253.96	2,390.2	-180.9	-629.2	654.7	0.00	0.00	0.00
2,560.0	26.42	253.96	2,426.1	-185.9	-646.3	672.5	0.00	0.00	0.00
2,600.0	26.42	253.96	2,461.9	-190.8	-663.4	690.3	0.00	0.00	0.00
2,640.0	26.42	253.96	2,497.7	-195.7	-680.5	708.1	0.00	0.00	0.00
2,680.0	26.42	253.96	2,533.5	-200.6	-697.6	725.9	0.00	0.00	0.00
2,720.0	26.42	253.96	2,569.4	-205.5	-714.7	743.7	0.00	0.00	0.00
2,760.0	26.42	253.96	2,605.2	-210.5	-731.8	761.5	0.00	0.00	0.00
2,800.0	26.42	253.96	2,641.0	-215.4	-748.9	779.3	0.00	0.00	0.00
2,840.0	26.42	253.96	2,676.8	-220.3	-766.0	797.1	0.00	0.00	0.00
2,880.0	26.42	253.96	2,712.7	-225.2	-783.1	814.9	0.00	0.00	0.00
2,920.0	26.42	253.96	2,748.5	-230.1	-800.2	832.7	0.00	0.00	0.00
2,960.0	26.42	253.96	2,784.3	-235.1	-817.3	850.5	0.00	0.00	0.00
3,000.0	26.42	253.96	2,820.1	-240.0	-834.4	868.3	0.00	0.00	0.00
3,040.0	26.42	253.96	2,855.9	-244.9	-851.5	886.0	0.00	0.00	0.00
3,080.0	26.42	253.96	2,891.8	-249.8	-868.6	903.8	0.00	0.00	0.00
3,120.0	26.42	253.96	2,927.6	-254.7	-885.7	921.6	0.00	0.00	0.00
3,160.0	26.42	253.96	2,963.4	-259.6	-902.8	939.4	0.00	0.00	0.00
3,200.0	26.42	253.96	2,999.2	-264.6	-919.9	957.2	0.00	0.00	0.00
3,240.0	26.42	253.96	3,035.1	-269.5	-937.0	975.0	0.00	0.00	0.00
3,280.0	26.42	253.96	3,070.9	-274.4	-954.2	992.8	0.00	0.00	0.00
3,320.0	26.42	253.96	3,106.7	-279.3	-971.3	1,010.6	0.00	0.00	0.00
3,360.0	26.42	253.96	3,142.5	-284.2	-988.4	1,028.4	0.00	0.00	0.00
3,400.0	26.42	253.96	3,178.4	-289.2	-1,005.5	1,046.2	0.00	0.00	0.00
3,440.0	26.42	253.96	3,214.2	-294.1	-1,022.6	1,064.0	0.00	0.00	0.00
3,480.0	26.42	253.96	3,250.0	-299.0	-1,039.7	1,081.8	0.00	0.00	0.00
3,520.0	26.42	253.96	3,285.8	-303.9	-1,056.8	1,099.6	0.00	0.00	0.00
3,560.0	26.42	253.96	3,321.6	-308.8	-1,073.9	1,117.4	0.00	0.00	0.00
3,600.0	26.42	253.96	3,357.5	-313.8	-1,091.0	1,135.2	0.00	0.00	0.00
3,640.0	26.42	253.96	3,393.3	-318.7	-1,108.1	1,153.0	0.00	0.00	0.00
3,680.0	26.42	253.96	3,429.1	-323.6	-1,125.2	1,170.8	0.00	0.00	0.00
3,720.0	26.42	253.96	3,464.9	-328.5	-1,142.3	1,188.6	0.00	0.00	0.00
3,760.0	26.42	253.96	3,500.8	-333.4	-1,159.4	1,206.4	0.00	0.00	0.00
3,800.0	26.42	253.96	3,536.6	-338.3	-1,176.5	1,224.2	0.00	0.00	0.00
3,840.0	26.42	253.96	3,572.4	-343.3	-1,193.6	1,242.0	0.00	0.00	0.00
3,880.0	26.42	253.96	3,608.2	-348.2	-1,210.7	1,259.8	0.00	0.00	0.00
3,920.0	26.42	253.96	3,644.0	-353.1	-1,227.8	1,277.6	0.00	0.00	0.00
3,960.0	26.42	253.96	3,679.9	-358.0	-1,244.9	1,295.4	0.00	0.00	0.00
4,000.0	26.42	253.96	3,715.7	-362.9	-1,262.0	1,313.2	0.00	0.00	0.00
4,040.0	26.42	253.96	3,751.5	-367.9	-1,279.1	1,331.0	0.00	0.00	0.00
4,080.0	26.42	253.96	3,787.3	-372.8	-1,296.2	1,348.8	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Booth USX EE35-05D
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Project:	SEC.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	North Reference:	True
Well:	Booth USX EE35-05D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Booth USX EE35-05D Plan #1 (7-13-11)		

Planned 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)
4,120.0	26.42	253.96	3,823.2	-377.7	-1,313.3	1,366.6	0.00	0.00	0.00
4,160.0	26.42	253.96	3,859.0	-382.6	-1,330.4	1,384.4	0.00	0.00	0.00
4,200.0	26.42	253.96	3,894.8	-387.5	-1,347.5	1,402.1	0.00	0.00	0.00
4,240.0	26.42	253.96	3,930.6	-392.5	-1,364.6	1,419.9	0.00	0.00	0.00
4,280.0	26.42	253.96	3,966.5	-397.4	-1,381.7	1,437.7	0.00	0.00	0.00
4,320.0	26.42	253.96	4,002.3	-402.3	-1,398.8	1,455.5	0.00	0.00	0.00
4,360.0	26.42	253.96	4,038.1	-407.2	-1,415.9	1,473.3	0.00	0.00	0.00
4,400.0	26.42	253.96	4,073.9	-412.1	-1,433.0	1,491.1	0.00	0.00	0.00
4,440.0	26.42	253.96	4,109.7	-417.0	-1,450.1	1,508.9	0.00	0.00	0.00
4,480.0	26.42	253.96	4,145.6	-422.0	-1,467.3	1,526.7	0.00	0.00	0.00
4,520.0	26.42	253.96	4,181.4	-426.9	-1,484.4	1,544.5	0.00	0.00	0.00
4,560.0	26.42	253.96	4,217.2	-431.8	-1,501.5	1,562.3	0.00	0.00	0.00
4,600.0	26.42	253.96	4,253.0	-436.7	-1,518.6	1,580.1	0.00	0.00	0.00
4,640.0	26.42	253.96	4,288.9	-441.6	-1,535.7	1,597.9	0.00	0.00	0.00
4,680.0	26.42	253.96	4,324.7	-446.6	-1,552.8	1,615.7	0.00	0.00	0.00
4,720.0	26.42	253.96	4,360.5	-451.5	-1,569.9	1,633.5	0.00	0.00	0.00
4,760.0	26.42	253.96	4,396.3	-456.4	-1,587.0	1,651.3	0.00	0.00	0.00
4,800.0	26.42	253.96	4,432.2	-461.3	-1,604.1	1,669.1	0.00	0.00	0.00
4,840.0	26.42	253.96	4,468.0	-466.2	-1,621.2	1,686.9	0.00	0.00	0.00
4,880.0	26.42	253.96	4,503.8	-471.2	-1,638.3	1,704.7	0.00	0.00	0.00
4,920.0	26.42	253.96	4,539.6	-476.1	-1,655.4	1,722.5	0.00	0.00	0.00
4,960.0	26.42	253.96	4,575.4	-481.0	-1,672.5	1,740.3	0.00	0.00	0.00
5,000.0	26.42	253.96	4,611.3	-485.9	-1,689.6	1,758.1	0.00	0.00	0.00
5,040.0	26.42	253.96	4,647.1	-490.8	-1,706.7	1,775.9	0.00	0.00	0.00
5,080.0	26.42	253.96	4,682.9	-495.7	-1,723.8	1,793.7	0.00	0.00	0.00
5,120.0	26.42	253.96	4,718.7	-500.7	-1,740.9	1,811.5	0.00	0.00	0.00
5,160.0	26.42	253.96	4,754.6	-505.6	-1,758.0	1,829.3	0.00	0.00	0.00
5,200.0	26.42	253.96	4,790.4	-510.5	-1,775.1	1,847.1	0.00	0.00	0.00
5,240.0	26.42	253.96	4,826.2	-515.4	-1,792.2	1,864.9	0.00	0.00	0.00
5,280.0	26.42	253.96	4,862.0	-520.3	-1,809.3	1,882.7	0.00	0.00	0.00
5,320.0	26.42	253.96	4,897.9	-525.3	-1,826.4	1,900.4	0.00	0.00	0.00
5,360.0	26.42	253.96	4,933.7	-530.2	-1,843.5	1,918.2	0.00	0.00	0.00
5,400.0	26.42	253.96	4,969.5	-535.1	-1,860.6	1,936.0	0.00	0.00	0.00
5,440.0	26.42	253.96	5,005.3	-540.0	-1,877.7	1,953.8	0.00	0.00	0.00
5,480.0	26.42	253.96	5,041.1	-544.9	-1,894.8	1,971.6	0.00	0.00	0.00
5,520.0	26.42	253.96	5,077.0	-549.9	-1,911.9	1,989.4	0.00	0.00	0.00
5,560.0	26.42	253.96	5,112.8	-554.8	-1,929.0	2,007.2	0.00	0.00	0.00
5,600.0	26.42	253.96	5,148.6	-559.7	-1,946.1	2,025.0	0.00	0.00	0.00
5,640.0	26.42	253.96	5,184.4	-564.6	-1,963.2	2,042.8	0.00	0.00	0.00
5,680.0	26.42	253.96	5,220.3	-569.5	-1,980.3	2,060.6	0.00	0.00	0.00
5,720.0	26.42	253.96	5,256.1	-574.4	-1,997.5	2,078.4	0.00	0.00	0.00
5,760.0	26.42	253.96	5,291.9	-579.4	-2,014.6	2,096.2	0.00	0.00	0.00
5,800.0	26.42	253.96	5,327.7	-584.3	-2,031.7	2,114.0	0.00	0.00	0.00
5,840.0	26.42	253.96	5,363.6	-589.2	-2,048.8	2,131.8	0.00	0.00	0.00
5,880.0	26.42	253.96	5,399.4	-594.1	-2,065.9	2,149.6	0.00	0.00	0.00
5,920.0	26.42	253.96	5,435.2	-599.0	-2,083.0	2,167.4	0.00	0.00	0.00
5,960.0	26.42	253.96	5,471.0	-604.0	-2,100.1	2,185.2	0.00	0.00	0.00
6,000.0	26.42	253.96	5,506.8	-608.9	-2,117.2	2,203.0	0.00	0.00	0.00
6,040.0	26.42	253.96	5,542.7	-613.8	-2,134.3	2,220.8	0.00	0.00	0.00
6,080.0	26.42	253.96	5,578.5	-618.7	-2,151.4	2,238.6	0.00	0.00	0.00
6,120.0	26.42	253.96	5,614.3	-623.6	-2,168.5	2,256.4	0.00	0.00	0.00
6,160.0	26.42	253.96	5,650.1	-628.6	-2,185.6	2,274.2	0.00	0.00	0.00
6,200.0	26.42	253.96	5,686.0	-633.5	-2,202.7	2,292.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Booth USX EE35-05D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4844.0ft (Original Well Elev)
Project:	SEC.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	North Reference:	True
Well:	Booth USX EE35-05D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Booth USX EE35-05D Plan #1 (7-13-11)		

Planned 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)
6,240.0	26.42	253.96	5,721.8	-638.4	-2,219.8	2,309.8	0.00	0.00	0.00
6,241.2	26.42	253.96	5,722.9	-638.5	-2,220.3	2,310.3	0.00	0.00	0.00
6,280.0	25.64	253.96	5,757.7	-643.2	-2,236.7	2,327.3	2.00	-2.00	0.00
6,320.0	24.84	253.96	5,793.9	-648.0	-2,253.1	2,344.4	2.00	-2.00	0.00
6,360.0	24.04	253.96	5,830.3	-652.5	-2,269.0	2,360.9	2.00	-2.00	0.00
6,400.0	23.24	253.96	5,867.0	-657.0	-2,284.4	2,377.0	2.00	-2.00	0.00
6,440.0	22.44	253.96	5,903.8	-661.3	-2,299.3	2,392.5	2.00	-2.00	0.00
6,480.0	21.64	253.96	5,940.9	-665.4	-2,313.7	2,407.5	2.00	-2.00	0.00
6,520.0	20.84	253.96	5,978.2	-669.4	-2,327.7	2,422.0	2.00	-2.00	0.00
6,560.0	20.04	253.96	6,015.7	-673.3	-2,341.1	2,436.0	2.00	-2.00	0.00
6,600.0	19.24	253.96	6,053.3	-677.0	-2,354.0	2,449.4	2.00	-2.00	0.00
6,640.0	18.44	253.96	6,091.2	-680.6	-2,366.4	2,462.3	2.00	-2.00	0.00
6,680.0	17.64	253.96	6,129.2	-684.0	-2,378.3	2,474.7	2.00	-2.00	0.00
6,720.0	16.84	253.96	6,167.4	-687.3	-2,389.7	2,486.6	2.00	-2.00	0.00
6,760.0	16.04	253.96	6,205.8	-690.4	-2,400.6	2,497.9	2.00	-2.00	0.00
6,800.0	15.24	253.96	6,244.3	-693.4	-2,411.0	2,508.7	2.00	-2.00	0.00
6,840.0	14.44	253.96	6,283.0	-696.2	-2,420.8	2,518.9	2.00	-2.00	0.00
6,880.0	13.64	253.96	6,321.8	-698.9	-2,430.2	2,528.7	2.00	-2.00	0.00
6,920.0	12.84	253.96	6,360.7	-701.4	-2,439.0	2,537.8	2.00	-2.00	0.00
6,960.0	12.04	253.96	6,399.8	-703.8	-2,447.2	2,546.4	2.00	-2.00	0.00
7,000.0	11.24	253.96	6,438.9	-706.0	-2,455.0	2,554.5	2.00	-2.00	0.00
7,040.0	10.44	253.96	6,478.2	-708.1	-2,462.2	2,562.0	2.00	-2.00	0.00
7,062.1	10.00	253.96	6,500.0	-709.2	-2,466.0	2,566.0	2.00	-2.00	0.00
DRILL TARGET 2062'FNL, 790'FWL									
7,080.0	10.00	253.96	6,517.6	-710.1	-2,469.0	2,569.1	0.00	0.00	0.00
7,085.7	10.00	253.96	6,523.2	-710.3	-2,469.9	2,570.0	0.00	0.00	0.00
BHL 2100'FNL, 660'FWL									
7,120.0	10.00	253.96	6,557.0	-712.0	-2,475.7	2,576.0	0.00	0.00	0.00
7,160.0	10.00	253.96	6,596.4	-713.9	-2,482.3	2,583.0	0.00	0.00	0.00
7,200.0	10.00	253.96	6,635.8	-715.8	-2,489.0	2,589.9	0.00	0.00	0.00
7,240.0	10.00	253.96	6,675.2	-717.7	-2,495.7	2,596.8	0.00	0.00	0.00
7,280.0	10.00	253.96	6,714.6	-719.7	-2,502.4	2,603.8	0.00	0.00	0.00
7,320.0	10.00	253.96	6,754.0	-721.6	-2,509.0	2,610.7	0.00	0.00	0.00
7,360.0	10.00	253.96	6,793.4	-723.5	-2,515.7	2,617.7	0.00	0.00	0.00
7,381.0	10.00	253.96	6,814.0	-724.5	-2,519.2	2,621.3	0.00	0.00	0.00
NIOBRARA									
7,394.9	10.00	253.96	6,827.7	-725.2	-2,521.5	2,623.7	0.00	0.00	0.00
TARGET CIRCLE 2100'FNL & 660'FWL									
7,395.4	10.00	253.96	6,828.2	-725.2	-2,521.6	2,623.8	0.00	0.00	0.00
LEGAL BOX 400' X 400' 2139'FNL & 668'FWL									
7,400.0	10.00	253.96	6,832.7	-725.4	-2,522.4	2,624.6	0.00	0.00	0.00
7,440.0	10.00	253.96	6,872.1	-727.3	-2,529.1	2,631.6	0.00	0.00	0.00
7,480.0	10.00	253.96	6,911.5	-729.3	-2,535.7	2,638.5	0.00	0.00	0.00
7,520.0	10.00	253.96	6,950.9	-731.2	-2,542.4	2,645.5	0.00	0.00	0.00
7,560.0	10.00	253.96	6,990.3	-733.1	-2,549.1	2,652.4	0.00	0.00	0.00
7,600.0	10.00	253.96	7,029.7	-735.0	-2,555.8	2,659.4	0.00	0.00	0.00
7,640.0	10.00	253.96	7,069.1	-736.9	-2,562.4	2,666.3	0.00	0.00	0.00
7,680.0	10.00	253.96	7,108.5	-738.9	-2,569.1	2,673.2	0.00	0.00	0.00
7,690.7	10.00	253.96	7,119.0	-739.4	-2,570.9	2,675.1	0.00	0.00	0.00
CODELL									
7,720.0	10.00	253.96	7,147.9	-740.8	-2,575.8	2,680.2	0.00	0.00	0.00
7,760.0	10.00	253.96	7,187.3	-742.7	-2,582.5	2,687.1	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Booth USX EE35-05D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4844.0ft (Original Well Elev)
Project:	SEC.35-T7N-R65W	MD Reference:	WELL @ 4844.0ft (Original Well Elev)
Site:	Booth USX EE35-05D Pad Sec.35-T7N-R65W	North Reference:	True
Well:	Booth USX EE35-05D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Noble Booth USX EE35-05D Plan #1 (7-13-11)		

Planned 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)
7,800.0	10.00	253.96	7,226.7	-744.6	-2,589.1	2,694.1	0.00	0.00	0.00
7,840.0	10.00	253.96	7,266.1	-746.5	-2,595.8	2,701.0	0.00	0.00	0.00
7,843.0	10.00	253.96	7,269.0	-746.7	-2,596.3	2,701.5	0.00	0.00	0.00

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
	- Shape								Latitude Longitude
DRILL TARGET 2062	- plan hits target center	0.00	0.00	6,500.0	-709.2	-2,466.0	1,438,144.84	3,239,906.87	40.532903 -104.636901
	- Point								
BHL 2100'FNL, 660'F	- plan misses target center by 133.5ft at 7085.7ft MD (6523.2 TVD, -710.3 N, -2469.9 E)	0.00	0.00	6,500.0	-746.7	-2,596.3	1,438,106.05	3,239,776.97	40.532800 -104.637370
	- Point								
TARGET CIRCLE 210	- plan misses target center by 79.0ft at 7394.9ft MD (6827.7 TVD, -725.2 N, -2521.5 E)	0.00	0.00	6,814.0	-746.7	-2,596.3	1,438,106.05	3,239,776.97	40.532800 -104.637370
	- Circle (radius 75.0)								
LEGAL BOX 400' X 40	- plan misses target center by 91.2ft at 7395.4ft MD (6828.2 TVD, -725.2 N, -2521.6 E)	0.00	0.00	6,814.0	-785.7	-2,588.3	1,438,067.15	3,239,785.33	40.532693 -104.637341
	- Rectangle (sides W400.0 H400.0 D455.0)								

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
796.3	795.0	8 5/8"	8-5/8	12-1/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,381.0	6,814.0	NIOBRARA		0.00	
7,690.7	7,119.0	CODELL		0.00	