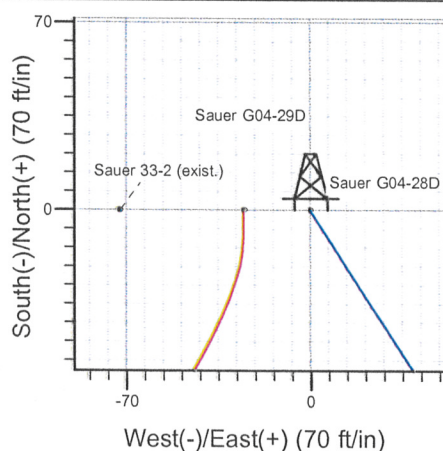
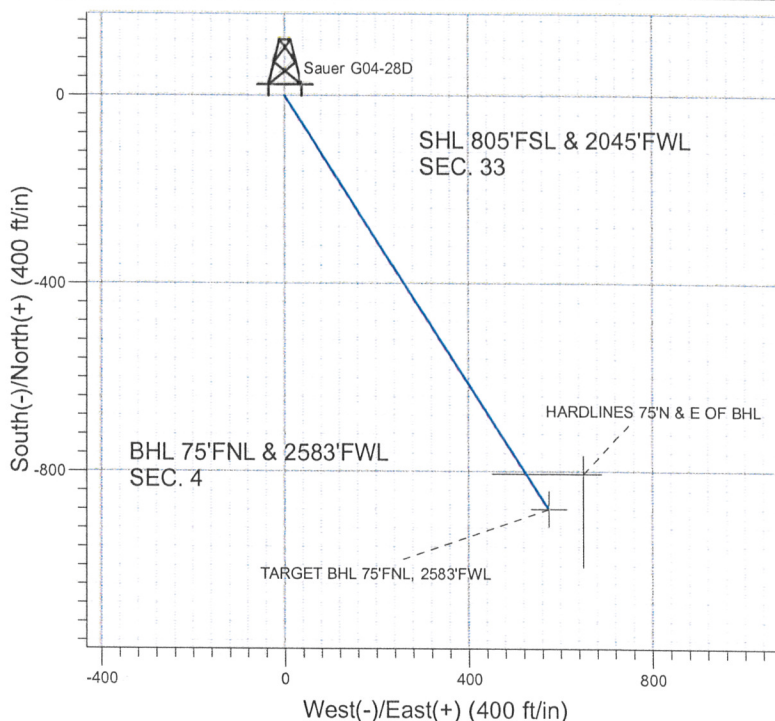
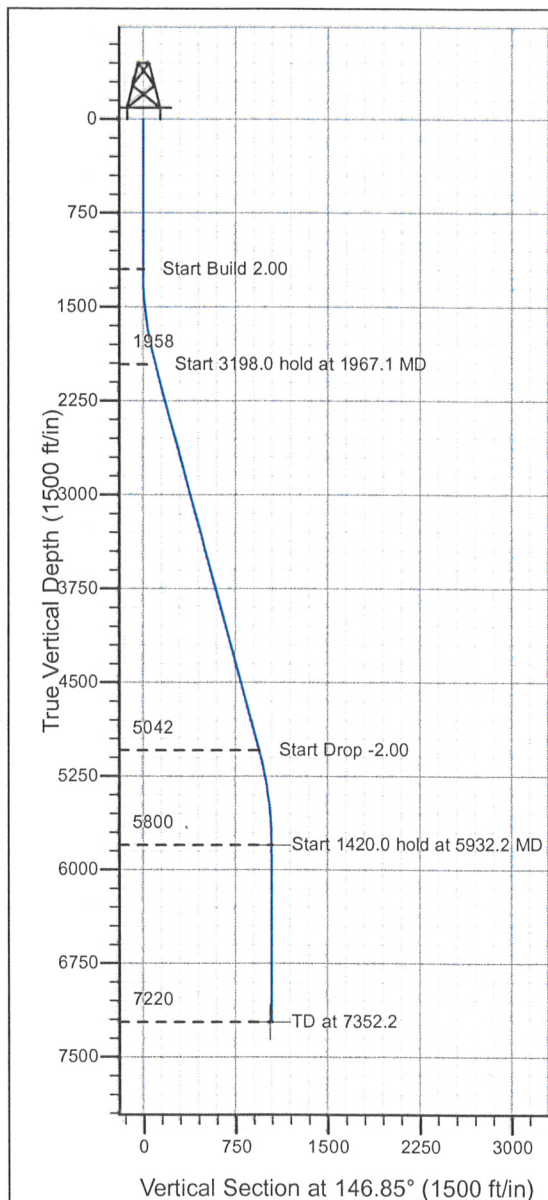


Well Name: Sauer G04-28D

Surface Location: Sauer G04-28D Pad Sec.33-T5N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4662.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1371678.27 3231183.43 40° 21' 2.484 N 104° 40' 13.872 W
 Original Well Elev WELL @ 4675.0ft (Original Well Elev)

NOBLE ENERGY INC WELD COUNTY CO



Sauer G04-28D Pad Sec.33-T5N-R65W
 Sauer G04-28D
 Plan #3 (08-07-09)
 13:16, August 07 2009



Azimuths to True North
 Magnetic North: 9.03°

Magnetic Field
 Strength: 53335.4nT
 Dip Angle: 67.10°
 Date: 7/23/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 75'FNL, 2583'FWL	5800.0	-879.4	574.4	40° 20' 53.794 N	104° 40' 6.454 W	Point
HARDLINES 75'N & E OF BHL	7220.0	-804.4	649.4	40° 20' 54.535 N	104° 40' 5.485 W	Polygon

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	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1967.1	15.34	146.85	1958.0	-85.5	55.8	2.00	146.85	102.1	
4	5165.1	15.34	146.85	5042.0	-793.9	518.5	0.00	0.00	948.3	
5	5932.2	0.00	0.00	5800.0	-879.4	574.4	2.00	180.00	1050.4	TARGET BHL 75'FNL, 2583'FWL
6	7352.2	0.00	0.00	7220.0	-879.4	574.4	0.00	0.00	1050.4	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.33-T5N-R65W

Sauer G04-28D Pad Sec.33-T5N-R65W

Sauer G04-29D

Wellbore #1

Plan: Plan #3 (08-07-09)

Standard Planning Report

07 August, 2009



Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Sauer G04-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4675.0ft (Original Well Elev)
Project:	SEC.33-T5N-R65W	MD Reference:	WELL @ 4675.0ft (Original Well Elev)
Site:	Sauer G04-28D Pad Sec.33-T5N-R65W	North Reference:	True
Well:	Sauer G04-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (08-07-09)		

Project	SEC.33-T5N-R65W		
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	Sauer G04-28D Pad Sec.33-T5N-R65W		
Site Position:		Northing:	1,371,678.28 ft
From:	Lat/Long	Easting:	3,231,183.43 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40° 21' 2.484 N
		Longitude:	104° 40' 13.872 W
		Grid Convergence:	0.54 °

Well	Sauer G04-29D		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	-25.1 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40° 21' 2.484 N
		Longitude:	104° 40' 14.196 W
		Ground Level:	4,662.0 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	7/23/2009	9.03
			Dip Angle
			(°)
			67.10
			Field Strength
			(nT)
			53,335

Design	Plan #3 (08-07-09)		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			(°)
			213.35

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,250.0	5.00	180.00	1,249.7	-10.9	0.0	2.00	2.00	0.00	180.00	
1,797.5	14.71	214.42	1,788.8	-92.3	-39.4	2.00	1.77	6.29	49.09	
5,192.5	14.71	214.42	5,072.5	-803.5	-526.7	0.00	0.00	0.00	0.00	
5,928.0	0.00	0.00	5,800.0	-881.0	-579.8	2.00	-2.00	0.00	180.00	TARGET BHL 75'FI
7,348.0	0.00	0.00	7,220.0	-881.0	-579.8	0.00	0.00	0.00	0.00	

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Sauer G04-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4675.0ft (Original Well Elev)
Project:	SEC.33-T5N-R65W	MD Reference:	WELL @ 4675.0ft (Original Well Elev)
Site:	Sauer G04-28D Pad Sec.33-T5N-R65W	North Reference:	True
Well:	Sauer G04-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (08-07-09)		

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	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.80	180.00	1,040.0	-0.3	0.0	0.2	2.00	2.00	0.00
1,080.0	1.60	180.00	1,080.0	-1.1	0.0	0.9	2.00	2.00	0.00
1,120.0	2.40	180.00	1,120.0	-2.5	0.0	2.1	2.00	2.00	0.00
1,160.0	3.20	180.00	1,159.9	-4.5	0.0	3.7	2.00	2.00	0.00
1,200.0	4.00	180.00	1,199.8	-7.0	0.0	5.8	2.00	2.00	0.00
1,240.0	4.80	180.00	1,239.7	-10.0	0.0	8.4	2.00	2.00	0.00
1,250.0	5.00	180.00	1,249.7	-10.9	0.0	9.1	2.00	2.00	0.00
1,280.0	5.41	184.81	1,279.6	-13.6	-0.1	11.4	2.00	1.37	16.04
1,320.0	6.01	190.16	1,319.4	-17.6	-0.6	15.0	2.00	1.50	13.36
1,360.0	6.65	194.51	1,359.1	-21.9	-1.6	19.1	2.00	1.60	10.87
1,400.0	7.32	198.08	1,398.8	-26.5	-3.0	23.8	2.00	1.68	8.93
1,440.0	8.02	201.04	1,438.5	-31.6	-4.8	29.0	2.00	1.74	7.41
1,480.0	8.73	203.53	1,478.0	-36.9	-7.0	34.7	2.00	1.78	6.22
1,520.0	9.46	205.64	1,517.5	-42.7	-9.6	40.9	2.00	1.82	5.28
1,560.0	10.20	207.45	1,556.9	-48.8	-12.7	47.7	2.00	1.84	4.53
1,600.0	10.94	209.02	1,596.3	-55.3	-16.1	55.0	2.00	1.87	3.92
1,640.0	11.70	210.39	1,635.5	-62.1	-20.0	62.9	2.00	1.88	3.42
1,680.0	12.46	211.59	1,674.6	-69.3	-24.3	71.2	2.00	1.90	3.01
1,720.0	13.22	212.66	1,713.6	-76.8	-29.1	80.1	2.00	1.91	2.67
1,760.0	13.99	213.62	1,752.5	-84.7	-34.2	89.5	2.00	1.92	2.38
1,797.5	14.71	214.42	1,788.8	-92.3	-39.4	98.8	2.00	1.93	2.15
1,800.0	14.71	214.42	1,791.2	-92.9	-39.8	99.5	0.00	0.00	0.00
1,840.0	14.71	214.42	1,829.9	-101.3	-45.5	109.6	0.00	0.00	0.00
1,880.0	14.71	214.42	1,868.6	-109.6	-51.3	119.8	0.00	0.00	0.00
1,920.0	14.71	214.42	1,907.3	-118.0	-57.0	129.9	0.00	0.00	0.00
1,960.0	14.71	214.42	1,946.0	-126.4	-62.7	140.1	0.00	0.00	0.00
2,000.0	14.71	214.42	1,984.7	-134.8	-68.5	150.2	0.00	0.00	0.00
2,040.0	14.71	214.42	2,023.4	-143.2	-74.2	160.4	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Sauer G04-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4675.0ft (Original Well Elev)
Project:	SEC.33-T5N-R65W	MD Reference:	WELL @ 4675.0ft (Original Well Elev)
Site:	Sauer G04-28D Pad Sec.33-T5N-R65W	North Reference:	True
Well:	Sauer G04-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (08-07-09)		

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)
2,080.0	14.71	214.42	2,062.0	-151.5	-80.0	170.5	0.00	0.00	0.00
2,120.0	14.71	214.42	2,100.7	-159.9	-85.7	180.7	0.00	0.00	0.00
2,160.0	14.71	214.42	2,139.4	-168.3	-91.5	190.9	0.00	0.00	0.00
2,200.0	14.71	214.42	2,178.1	-176.7	-97.2	201.0	0.00	0.00	0.00
2,240.0	14.71	214.42	2,216.8	-185.1	-102.9	211.2	0.00	0.00	0.00
2,280.0	14.71	214.42	2,255.5	-193.4	-108.7	221.3	0.00	0.00	0.00
2,320.0	14.71	214.42	2,294.2	-201.8	-114.4	231.5	0.00	0.00	0.00
2,360.0	14.71	214.42	2,332.9	-210.2	-120.2	241.6	0.00	0.00	0.00
2,400.0	14.71	214.42	2,371.6	-218.6	-125.9	251.8	0.00	0.00	0.00
2,440.0	14.71	214.42	2,410.2	-226.9	-131.6	261.9	0.00	0.00	0.00
2,480.0	14.71	214.42	2,448.9	-235.3	-137.4	272.1	0.00	0.00	0.00
2,520.0	14.71	214.42	2,487.6	-243.7	-143.1	282.3	0.00	0.00	0.00
2,560.0	14.71	214.42	2,526.3	-252.1	-148.9	292.4	0.00	0.00	0.00
2,600.0	14.71	214.42	2,565.0	-260.5	-154.6	302.6	0.00	0.00	0.00
2,640.0	14.71	214.42	2,603.7	-268.8	-160.4	312.7	0.00	0.00	0.00
2,680.0	14.71	214.42	2,642.4	-277.2	-166.1	322.9	0.00	0.00	0.00
2,720.0	14.71	214.42	2,681.1	-285.6	-171.8	333.0	0.00	0.00	0.00
2,760.0	14.71	214.42	2,719.8	-294.0	-177.6	343.2	0.00	0.00	0.00
2,800.0	14.71	214.42	2,758.4	-302.4	-183.3	353.4	0.00	0.00	0.00
2,840.0	14.71	214.42	2,797.1	-310.7	-189.1	363.5	0.00	0.00	0.00
2,880.0	14.71	214.42	2,835.8	-319.1	-194.8	373.7	0.00	0.00	0.00
2,920.0	14.71	214.42	2,874.5	-327.5	-200.5	383.8	0.00	0.00	0.00
2,960.0	14.71	214.42	2,913.2	-335.9	-206.3	394.0	0.00	0.00	0.00
3,000.0	14.71	214.42	2,951.9	-344.3	-212.0	404.1	0.00	0.00	0.00
3,040.0	14.71	214.42	2,990.6	-352.6	-217.8	414.3	0.00	0.00	0.00
3,080.0	14.71	214.42	3,029.3	-361.0	-223.5	424.4	0.00	0.00	0.00
3,120.0	14.71	214.42	3,068.0	-369.4	-229.2	434.6	0.00	0.00	0.00
3,160.0	14.71	214.42	3,106.6	-377.8	-235.0	444.8	0.00	0.00	0.00
3,200.0	14.71	214.42	3,145.3	-386.2	-240.7	454.9	0.00	0.00	0.00
3,240.0	14.71	214.42	3,184.0	-394.5	-246.5	465.1	0.00	0.00	0.00
3,280.0	14.71	214.42	3,222.7	-402.9	-252.2	475.2	0.00	0.00	0.00
3,320.0	14.71	214.42	3,261.4	-411.3	-258.0	485.4	0.00	0.00	0.00
3,360.0	14.71	214.42	3,300.1	-419.7	-263.7	495.5	0.00	0.00	0.00
3,400.0	14.71	214.42	3,338.8	-428.1	-269.4	505.7	0.00	0.00	0.00
3,440.0	14.71	214.42	3,377.5	-436.4	-275.2	515.8	0.00	0.00	0.00
3,480.0	14.71	214.42	3,416.2	-444.8	-280.9	526.0	0.00	0.00	0.00
3,520.0	14.71	214.42	3,454.8	-453.2	-286.7	536.2	0.00	0.00	0.00
3,560.0	14.71	214.42	3,493.5	-461.6	-292.4	546.3	0.00	0.00	0.00
3,600.0	14.71	214.42	3,532.2	-469.9	-298.1	556.5	0.00	0.00	0.00
3,640.0	14.71	214.42	3,570.9	-478.3	-303.9	566.6	0.00	0.00	0.00
3,680.0	14.71	214.42	3,609.6	-486.7	-309.6	576.8	0.00	0.00	0.00
3,720.0	14.71	214.42	3,648.3	-495.1	-315.4	586.9	0.00	0.00	0.00
3,760.0	14.71	214.42	3,687.0	-503.5	-321.1	597.1	0.00	0.00	0.00
3,800.0	14.71	214.42	3,725.7	-511.8	-326.9	607.2	0.00	0.00	0.00
3,840.0	14.71	214.42	3,764.4	-520.2	-332.6	617.4	0.00	0.00	0.00
3,880.0	14.71	214.42	3,803.0	-528.6	-338.3	627.6	0.00	0.00	0.00
3,920.0	14.71	214.42	3,841.7	-537.0	-344.1	637.7	0.00	0.00	0.00
3,960.0	14.71	214.42	3,880.4	-545.4	-349.8	647.9	0.00	0.00	0.00
4,000.0	14.71	214.42	3,919.1	-553.7	-355.6	658.0	0.00	0.00	0.00
4,040.0	14.71	214.42	3,957.8	-562.1	-361.3	668.2	0.00	0.00	0.00
4,080.0	14.71	214.42	3,996.5	-570.5	-367.0	678.3	0.00	0.00	0.00
4,120.0	14.71	214.42	4,035.2	-578.9	-372.8	688.5	0.00	0.00	0.00
4,160.0	14.71	214.42	4,073.9	-587.3	-378.5	698.7	0.00	0.00	0.00
4,200.0	14.71	214.42	4,112.6	-595.6	-384.3	708.8	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
 Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.33-T5N-R65W
 Site: Sauer G04-28D Pad Sec.33-T5N-R65W
 Well: Sauer G04-29D
 Wellbore: Wellbore #1
 Design: Plan #3 (08-07-09)

Local Co-ordinate Reference: Well Sauer G04-29D
 TVD Reference: WELL @ 4675.0ft (Original Well Elev)
 MD Reference: WELL @ 4675.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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)
4,240.0	14.71	214.42	4,151.2	-604.0	-390.0	719.0	0.00	0.00	0.00
4,280.0	14.71	214.42	4,189.9	-612.4	-395.8	729.1	0.00	0.00	0.00
4,320.0	14.71	214.42	4,228.6	-620.8	-401.5	739.3	0.00	0.00	0.00
4,360.0	14.71	214.42	4,267.3	-629.2	-407.2	749.4	0.00	0.00	0.00
4,400.0	14.71	214.42	4,306.0	-637.5	-413.0	759.6	0.00	0.00	0.00
4,440.0	14.71	214.42	4,344.7	-645.9	-418.7	769.7	0.00	0.00	0.00
4,480.0	14.71	214.42	4,383.4	-654.3	-424.5	779.9	0.00	0.00	0.00
4,520.0	14.71	214.42	4,422.1	-662.7	-430.2	790.1	0.00	0.00	0.00
4,560.0	14.71	214.42	4,460.8	-671.0	-435.9	800.2	0.00	0.00	0.00
4,600.0	14.71	214.42	4,499.4	-679.4	-441.7	810.4	0.00	0.00	0.00
4,640.0	14.71	214.42	4,538.1	-687.8	-447.4	820.5	0.00	0.00	0.00
4,680.0	14.71	214.42	4,576.8	-696.2	-453.2	830.7	0.00	0.00	0.00
4,720.0	14.71	214.42	4,615.5	-704.6	-458.9	840.8	0.00	0.00	0.00
4,760.0	14.71	214.42	4,654.2	-712.9	-464.7	851.0	0.00	0.00	0.00
4,800.0	14.71	214.42	4,692.9	-721.3	-470.4	861.1	0.00	0.00	0.00
4,840.0	14.71	214.42	4,731.6	-729.7	-476.1	871.3	0.00	0.00	0.00
4,880.0	14.71	214.42	4,770.3	-738.1	-481.9	881.5	0.00	0.00	0.00
4,920.0	14.71	214.42	4,809.0	-746.5	-487.6	891.6	0.00	0.00	0.00
4,960.0	14.71	214.42	4,847.6	-754.8	-493.4	901.8	0.00	0.00	0.00
5,000.0	14.71	214.42	4,886.3	-763.2	-499.1	911.9	0.00	0.00	0.00
5,040.0	14.71	214.42	4,925.0	-771.6	-504.8	922.1	0.00	0.00	0.00
5,080.0	14.71	214.42	4,963.7	-780.0	-510.6	932.2	0.00	0.00	0.00
5,120.0	14.71	214.42	5,002.4	-788.4	-516.3	942.4	0.00	0.00	0.00
5,160.0	14.71	214.42	5,041.1	-796.7	-522.1	952.5	0.00	0.00	0.00
5,192.5	14.71	214.42	5,072.5	-803.5	-526.7	960.8	0.00	0.00	0.00
5,200.0	14.56	214.42	5,079.8	-805.1	-527.8	962.7	2.00	-2.00	0.00
5,240.0	13.76	214.42	5,118.6	-813.2	-533.3	972.5	2.00	-2.00	0.00
5,280.0	12.96	214.42	5,157.5	-820.8	-538.6	981.7	2.00	-2.00	0.00
5,320.0	12.16	214.42	5,196.5	-828.0	-543.5	990.4	2.00	-2.00	0.00
5,360.0	11.36	214.42	5,235.7	-834.7	-548.1	998.6	2.00	-2.00	0.00
5,400.0	10.56	214.42	5,274.9	-841.0	-552.4	1,006.2	2.00	-2.00	0.00
5,440.0	9.76	214.42	5,314.3	-846.8	-556.4	1,013.2	2.00	-2.00	0.00
5,480.0	8.96	214.42	5,353.8	-852.2	-560.1	1,019.7	2.00	-2.00	0.00
5,520.0	8.16	214.42	5,393.3	-857.1	-563.4	1,025.7	2.00	-2.00	0.00
5,560.0	7.36	214.42	5,433.0	-861.5	-566.5	1,031.1	2.00	-2.00	0.00
5,600.0	6.56	214.42	5,472.7	-865.5	-569.2	1,035.9	2.00	-2.00	0.00
5,640.0	5.76	214.42	5,512.4	-869.1	-571.6	1,040.2	2.00	-2.00	0.00
5,680.0	4.96	214.42	5,552.3	-872.2	-573.8	1,044.0	2.00	-2.00	0.00
5,720.0	4.16	214.42	5,592.1	-874.8	-575.6	1,047.1	2.00	-2.00	0.00
5,760.0	3.36	214.42	5,632.1	-876.9	-577.0	1,049.8	2.00	-2.00	0.00
5,800.0	2.56	214.42	5,672.0	-878.7	-578.2	1,051.8	2.00	-2.00	0.00
5,840.0	1.76	214.42	5,712.0	-879.9	-579.1	1,053.3	2.00	-2.00	0.00
5,880.0	0.96	214.42	5,752.0	-880.7	-579.6	1,054.3	2.00	-2.00	0.00
5,920.0	0.16	214.42	5,792.0	-881.0	-579.8	1,054.7	2.00	-2.00	0.00
5,928.0	0.00	0.00	5,800.0	-881.0	-579.8	1,054.7	2.00	-2.00	0.00
TARGET BHL 75'FNL, 1404'FWL									
5,960.0	0.00	0.00	5,832.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,872.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,040.0	0.00	0.00	5,912.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,080.0	0.00	0.00	5,952.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,120.0	0.00	0.00	5,992.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,160.0	0.00	0.00	6,032.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,072.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Sauer G04-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4675.0ft (Original Well Elev)
Project:	SEC.33-T5N-R65W	MD Reference:	WELL @ 4675.0ft (Original Well Elev)
Site:	Sauer G04-28D Pad Sec.33-T5N-R65W	North Reference:	True
Well:	Sauer G04-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (08-07-09)		

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	0.00	0.00	6,112.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,280.0	0.00	0.00	6,152.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,320.0	0.00	0.00	6,192.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,360.0	0.00	0.00	6,232.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,272.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,440.0	0.00	0.00	6,312.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,352.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,392.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,432.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,472.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,512.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,552.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,592.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,632.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,672.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,840.0	0.00	0.00	6,712.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,878.0	0.00	0.00	6,750.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
NIOBRARA									
6,880.0	0.00	0.00	6,752.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,920.0	0.00	0.00	6,792.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
6,960.0	0.00	0.00	6,832.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,872.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,040.0	0.00	0.00	6,912.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,080.0	0.00	0.00	6,952.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,120.0	0.00	0.00	6,992.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,160.0	0.00	0.00	7,032.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,198.0	0.00	0.00	7,070.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
CODELL									
7,200.0	0.00	0.00	7,072.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,240.0	0.00	0.00	7,112.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,280.0	0.00	0.00	7,152.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,320.0	0.00	0.00	7,192.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
7,348.0	0.00	0.00	7,220.0	-881.0	-579.8	1,054.7	0.00	0.00	0.00
HARDLINE 75°N OF BHL									

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
HARDLINE 75°N OF E	0.00	0.00	7,220.0	-806.0	-679.8	1,370,865.75	3,230,486.15	40° 20' 54.519 N	104° 40' 22.976 W
- plan misses target center by 125.0ft at 7348.0ft MD (7220.0 TVD, -881.0 N, -579.8 E)									
- Polygon									
Point 1			7,220.0	0.0	0.0	1,370,865.75	3,230,486.15		
Point 2			7,220.0	0.0	200.0	1,370,867.62	3,230,686.13		
TARGET BHL 75°FNL	0.00	0.00	5,800.0	-881.0	-579.8	1,370,791.68	3,230,586.82	40° 20' 53.778 N	104° 40' 21.685 W
- plan hits target center									
- Point									

Database:	EDM den0-adp01 Server Data	Local Co-ordinate Reference:	Well Sauer G04-29D
Company:	NOBLE ENERGY INC WELD COUNTY CO	TVD Reference:	WELL @ 4675.0ft (Original Well Elev)
Project:	SEC.33-T5N-R65W	MD Reference:	WELL @ 4675.0ft (Original Well Elev)
Site:	Sauer G04-28D Pad Sec.33-T5N-R65W	North Reference:	True
Well:	Sauer G04-29D	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 (08-07-09)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,878.0	6,750.0	NIOBRARA		0.00		
7,198.0	7,070.0	CODELL		0.00		