

Noble Energy

Weld County, CO (NAD 83)

Sec. 17-T11N-R61W

DF Ranch PC GK17-99HZ

Plan #1

Plan: Plan #1 Proposal

Sperry Drilling Services

Proposal Report

28 June, 2010

Well Coordinates: 1,583,597.68 N, 3,349,241.93 E (40° 55' 42.64" N, 104° 14' 10.10" W)

Ground Level: 5,312.00 ft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

Centered on Well DF Ranch PC GK17-99HZ

RKB 24' @ 5336.00ft (H&P 315)

N

Grid

API - US Survey Feet - Custom

HALLIBURTON

Plan Report for DF Ranch PC GK17-99HZ - Plan #1 Proposal

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)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,046.00	0.00	0.00	4,046.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parkman										
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Plan Report for DF Ranch PC GK17-99HZ - Plan #1 Proposal

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)	Toolface Azimuth (°)
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,340.86	0.00	0.00	6,340.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kickoff at 6340.86ft										
6,400.00	4.73	136.08	6,399.93	-1.76	1.69	2.44	8.00	8.00	0.00	136.08
6,500.00	12.73	136.08	6,498.69	-12.68	12.21	17.61	8.00	8.00	0.00	0.00
6,600.00	20.73	136.08	6,594.38	-33.40	32.17	46.37	8.00	8.00	0.00	0.00
6,700.00	28.73	136.08	6,685.14	-63.51	61.17	88.17	8.00	8.00	0.00	0.00
6,800.00	36.73	136.08	6,769.19	-102.42	98.64	142.20	8.00	8.00	0.00	0.00
6,875.00	42.73	136.08	6,826.84	-136.94	131.88	190.12	8.00	8.00	0.00	0.00
Build Rate = 8.00°/100ft										
6,900.00	44.73	136.08	6,844.91	-149.38	143.87	207.40	8.00	8.00	0.00	0.00
7,000.00	52.73	136.08	6,910.81	-203.48	195.97	282.50	8.00	8.00	0.00	0.00
7,012.62	53.74	136.08	6,918.37	-210.76	202.98	292.61	8.00	8.00	0.00	0.00
Shannon										
7,065.65	57.98	136.08	6,948.12	-242.37	233.43	336.50	8.00	8.00	0.00	0.00
Niobrara										
7,073.20	58.59	136.08	6,952.08	-246.99	237.88	342.91	8.00	8.00	0.00	0.00
Niobrara A										
7,086.71	59.67	136.08	6,959.02	-255.34	245.92	354.51	8.00	8.00	0.00	0.00
Niobrara A Base										
7,100.00	60.73	136.08	6,965.62	-263.65	253.92	366.04	8.00	8.00	0.00	0.00
7,200.00	68.73	136.08	7,008.28	-328.73	316.60	456.40	8.00	8.00	0.00	0.00
7,295.71	76.39	136.08	7,036.94	-394.45	379.90	547.65	8.00	8.00	0.00	0.00
Niobrara B										
7,300.00	76.73	136.08	7,037.94	-397.45	382.79	551.82	8.00	8.00	0.00	0.00
7,400.00	84.73	136.08	7,054.03	-468.48	451.20	650.43	8.00	8.00	0.00	0.00
7,403.36	85.00	136.08	7,054.33	-470.89	453.52	653.78	8.00	8.00	0.00	0.00
End Build at 7403.36ft - 7" Casing Pt.										
7,425.11	85.00	136.08	7,056.23	-486.50	468.55	675.44	0.00	0.00	0.00	0.00
Nio B Tgt top										
7,440.00	85.00	136.08	7,057.53	-497.18	478.84	690.28	0.00	0.00	0.00	0.00
Hold Angle at 85.00										
7,478.36	85.00	136.08	7,060.87	-524.71	505.35	728.49	0.00	0.00	0.00	0.00
Kickoff at 7478.36ft										
7,500.00	86.73	136.08	7,062.43	-540.25	520.33	750.07	8.00	8.00	0.00	0.00
7,512.00	87.69	136.08	7,063.01	-548.89	528.64	762.06	8.00	8.00	0.00	0.00
Build Rate = 8.00°/100ft										
7,540.86	90.00	136.08	7,063.59	-569.67	548.65	790.91	8.00	8.00	0.00	0.00
Niobrara B Target										
7,544.86	90.32	136.08	7,063.58	-572.55	551.43	794.91	8.00	8.00	0.00	-0.02
End Build at 7544.86ft										
7,600.00	90.32	136.08	7,063.27	-612.26	589.68	850.05	0.00	0.00	0.00	-0.02
7,700.00	90.32	136.08	7,062.72	-684.29	659.05	950.05	0.00	0.00	0.00	0.00
7,800.00	90.32	136.08	7,062.16	-756.31	728.42	1,050.05	0.00	0.00	0.00	0.00
7,900.00	90.32	136.08	7,061.60	-828.34	797.79	1,150.05	0.00	0.00	0.00	0.00
8,000.00	90.32	136.08	7,061.04	-900.36	867.15	1,250.04	0.00	0.00	0.00	0.00
8,100.00	90.32	136.08	7,060.48	-972.39	936.52	1,350.04	0.00	0.00	0.00	0.00
8,200.00	90.32	136.08	7,059.92	-1,044.41	1,005.89	1,450.04	0.00	0.00	0.00	0.00
8,300.00	90.32	136.08	7,059.36	-1,116.44	1,075.26	1,550.04	0.00	0.00	0.00	0.00
8,400.00	90.32	136.08	7,058.80	-1,188.46	1,144.63	1,650.04	0.00	0.00	0.00	0.00
8,500.00	90.32	136.08	7,058.25	-1,260.49	1,214.00	1,750.04	0.00	0.00	0.00	0.00

Plan Report for DF Ranch PC GK17-99HZ - Plan #1 Proposal

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)	Toolface Azimuth (°)
8,600.00	90.32	136.08	7,057.69	-1,332.52	1,283.37	1,850.04	0.00	0.00	0.00	0.00
8,700.00	90.32	136.08	7,057.13	-1,404.54	1,352.74	1,950.03	0.00	0.00	0.00	0.00
8,800.00	90.32	136.08	7,056.57	-1,476.57	1,422.11	2,050.03	0.00	0.00	0.00	0.00
8,900.00	90.32	136.08	7,056.01	-1,548.59	1,491.48	2,150.03	0.00	0.00	0.00	0.00
9,000.00	90.32	136.08	7,055.45	-1,620.62	1,560.84	2,250.03	0.00	0.00	0.00	0.00
9,100.00	90.32	136.08	7,054.89	-1,692.64	1,630.21	2,350.03	0.00	0.00	0.00	0.00
9,200.00	90.32	136.08	7,054.33	-1,764.67	1,699.58	2,450.03	0.00	0.00	0.00	0.00
9,300.00	90.32	136.08	7,053.78	-1,836.69	1,768.95	2,550.02	0.00	0.00	0.00	0.00
9,400.00	90.32	136.08	7,053.22	-1,908.72	1,838.32	2,650.02	0.00	0.00	0.00	0.00
9,500.00	90.32	136.08	7,052.66	-1,980.74	1,907.69	2,750.02	0.00	0.00	0.00	0.00
9,600.00	90.32	136.08	7,052.10	-2,052.77	1,977.06	2,850.02	0.00	0.00	0.00	0.00
9,700.00	90.32	136.08	7,051.54	-2,124.79	2,046.43	2,950.02	0.00	0.00	0.00	0.00
9,800.00	90.32	136.08	7,050.98	-2,196.82	2,115.80	3,050.02	0.00	0.00	0.00	0.00
9,900.00	90.32	136.08	7,050.42	-2,268.84	2,185.16	3,150.02	0.00	0.00	0.00	0.00
10,000.00	90.32	136.08	7,049.86	-2,340.87	2,254.53	3,250.01	0.00	0.00	0.00	0.00
Hold Angle at 90.32										
10,100.00	90.32	136.08	7,049.31	-2,412.89	2,323.90	3,350.01	0.00	0.00	0.00	0.00
10,200.00	90.32	136.08	7,048.75	-2,484.92	2,393.27	3,450.01	0.00	0.00	0.00	0.00
10,300.00	90.32	136.08	7,048.19	-2,556.94	2,462.64	3,550.01	0.00	0.00	0.00	0.00
10,400.00	90.32	136.08	7,047.63	-2,628.97	2,532.01	3,650.01	0.00	0.00	0.00	0.00
10,500.00	90.32	136.08	7,047.07	-2,701.00	2,601.38	3,750.01	0.00	0.00	0.00	0.00
10,600.00	90.32	136.08	7,046.51	-2,773.02	2,670.75	3,850.00	0.00	0.00	0.00	0.00
10,700.00	90.32	136.08	7,045.95	-2,845.05	2,740.12	3,950.00	0.00	0.00	0.00	0.00
10,800.00	90.32	136.08	7,045.39	-2,917.07	2,809.48	4,050.00	0.00	0.00	0.00	0.00
10,900.00	90.32	136.08	7,044.84	-2,989.10	2,878.85	4,150.00	0.00	0.00	0.00	0.00
11,000.00	90.32	136.08	7,044.28	-3,061.12	2,948.22	4,250.00	0.00	0.00	0.00	0.00
11,100.00	90.32	136.08	7,043.72	-3,133.15	3,017.59	4,350.00	0.00	0.00	0.00	0.00
11,200.00	90.32	136.08	7,043.16	-3,205.17	3,086.96	4,449.99	0.00	0.00	0.00	0.00
11,300.00	90.32	136.08	7,042.60	-3,277.20	3,156.33	4,549.99	0.00	0.00	0.00	0.00
11,400.00	90.32	136.08	7,042.04	-3,349.22	3,225.70	4,649.99	0.00	0.00	0.00	0.00
11,500.00	90.32	136.08	7,041.48	-3,421.25	3,295.07	4,749.99	0.00	0.00	0.00	0.00
11,600.00	90.32	136.08	7,040.92	-3,493.27	3,364.44	4,849.99	0.00	0.00	0.00	0.00
11,700.00	90.32	136.08	7,040.36	-3,565.30	3,433.80	4,949.99	0.00	0.00	0.00	0.00
11,800.00	90.32	136.08	7,039.81	-3,637.32	3,503.17	5,049.99	0.00	0.00	0.00	0.00
11,900.00	90.32	136.08	7,039.25	-3,709.35	3,572.54	5,149.98	0.00	0.00	0.00	0.00
12,000.00	90.32	136.08	7,038.69	-3,781.37	3,641.91	5,249.98	0.00	0.00	0.00	0.00
12,100.00	90.32	136.08	7,038.13	-3,853.40	3,711.28	5,349.98	0.00	0.00	0.00	0.00
12,200.00	90.32	136.08	7,037.57	-3,925.43	3,780.65	5,449.98	0.00	0.00	0.00	0.00
12,234.17	90.32	136.08	7,037.38	-3,950.04	3,804.35	5,484.15	0.00	0.00	0.00	0.00

DF Ranch PC GK17-99HZ Plan #1 BH Tgt

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,340.86	6,340.86	0.00	0.00	Kickoff at 6340.86ft
6,875.00	6,826.84	-136.94	131.88	Build Rate = 8.00°/100ft
7,403.36	7,054.33	-470.89	453.52	End Build at 7403.36ft
7,440.00	7,057.53	-497.18	478.84	Hold Angle at 85.00
7,478.36	7,060.87	-524.71	505.35	Kickoff at 7478.36ft
7,512.00	7,063.01	-548.89	528.64	Build Rate = 8.00°/100ft
7,544.86	7,063.58	-572.55	551.43	End Build at 7544.86ft
10,000.00	7,049.86	-2,340.87	2,254.53	Hold Angle at 90.32
12,234.17	7,037.38	-3,950.04	3,804.35	Total Depth = 12234.17ft

Plan Report for DF Ranch PC GK17-99HZ - Plan #1 Proposal

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (ft)	Origin +E/-W (ft)	Start TVD (ft)
Target	DF Ranch PC GK17-99HZ Plan #1 BH Tgt	136.08	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	12,234.17	Plan #1 Proposal	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,403.36	7,054.33	7" Casing Pt.	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,046.00	4,046.00	Parkman		-0.32	136.08
7,012.62	6,920.00	Shannon		-0.32	136.08
7,065.65	6,950.00	Niobrara		-0.32	136.08
7,073.20	6,954.00	Niobrara A		-0.32	136.08
7,086.71	6,961.00	Niobrara A Base		-0.32	136.08
7,295.71	7,040.00	Niobrara B		-0.32	136.08
7,425.11	7,060.00	Nio B Tgt top		-0.32	136.08
7,540.86	7,068.01	Niobrara B Target		-0.32	136.08

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
DF Ranch PC GK17-99HZ W. 600' Setback	0.00	0.00	0.00	Polygon
DF Ranch PC GK17-99HZ Plan #1 BH Tgt	7,037.38	-3,950.04	3,804.35	Point
DF Ranch PC GK17-99HZ N. 600' Setback	0.00	0.00	0.00	Polygon
DF Ranch PC GK17-99HZ S. Section Line	0.00	0.00	0.00	Polygon
DF Ranch PC GK17-99HZ S. 600' Setback	0.00	0.00	0.00	Polygon
DF Ranch PC GK17-99HZ W. Section Line	0.00	0.00	0.00	Polygon
DF Ranch PC GK17-99HZ E. 600' Setback	0.00	0.00	0.00	Polygon
DF Ranch PC GK17-99HZ N. Section Line	0.00	0.00	0.00	Polygon
DF Ranch PC GK17-99HZ E. Section Line	0.00	0.00	0.00	Polygon

North Reference Sheet for Sec. 17-T11N-R61W - DF Ranch PC GK17-99HZ - Plan #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to RKB 24' @ 5336.00ft (H&P 315). Northing and Easting are relative to DF Ranch PC GK17-99HZ

Coordinate System is US State Plane 1983, Colorado Northern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is -105.50°, Longitude Origin:0.000000°, Latitude Origin:40.783333°

False Easting: 3,000,000.00ft, False Northing: 1,000,000.00ft, Scale Reduction: 1.00002678

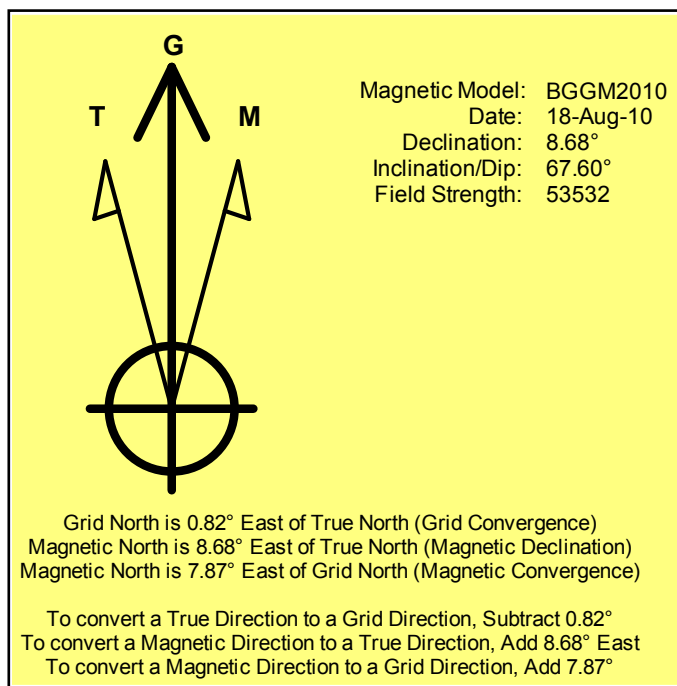
Grid Coordinates of Well: 1,583,597.68 ft N, 3,349,241.93 ft E

Geographical Coordinates of Well: 40° 55' 42.64" N, 104° 14' 10.10" W

Grid Convergence at Surface is: 0.82°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,234.17ft
the Bottom Hole Displacement is 5,484.15ft in the Direction of 136.08° (Grid).

Magnetic Convergence at surface is: -7.87° (18 August 2010, , BGGM2010)



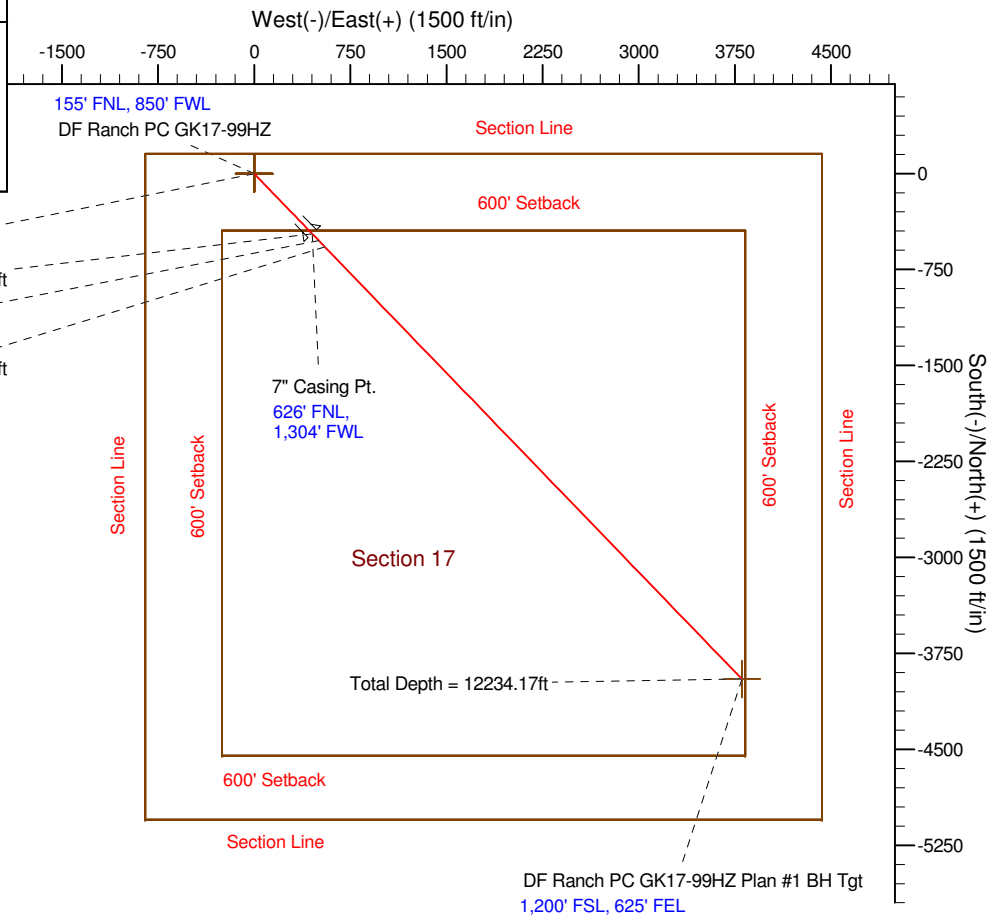
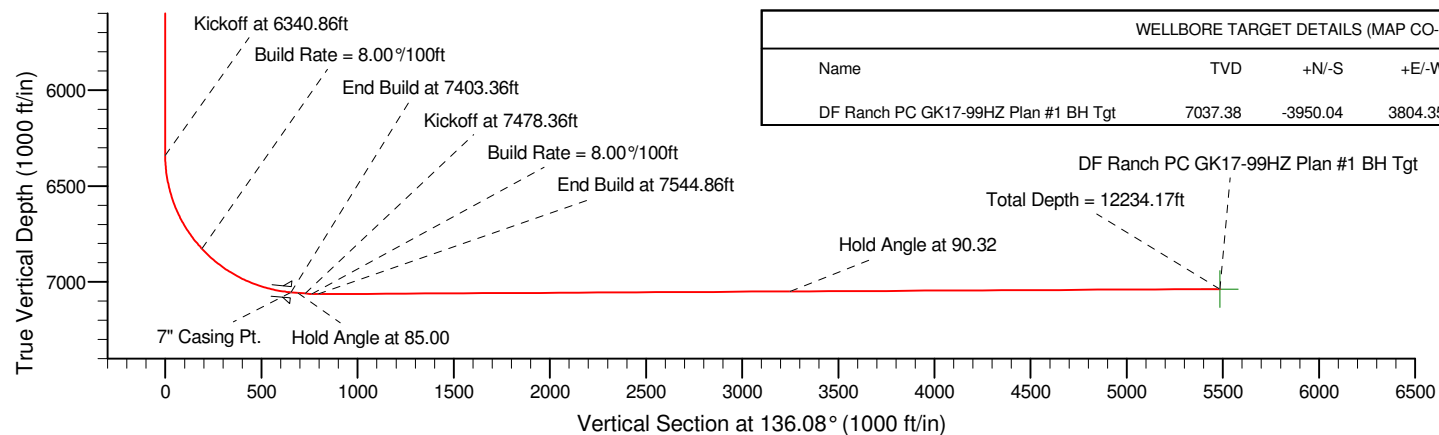
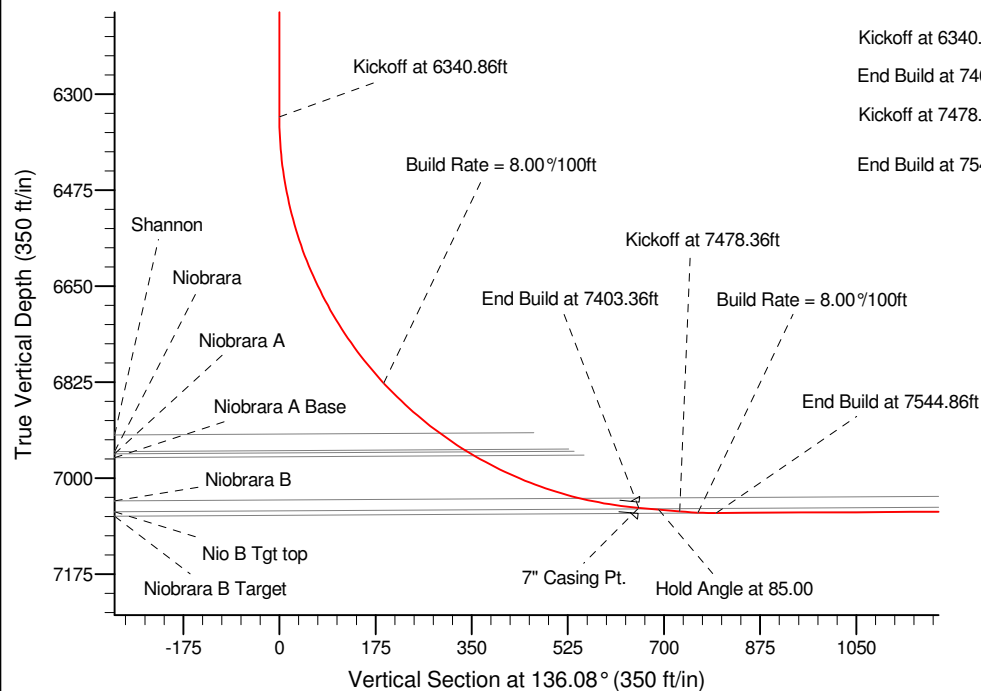
Project: Weld County, CO (NAD 83)
Site: Sec. 17-T11N-R61W
Well: DF Ranch PC GK17-99HZ
Wellbore: Plan #1
Design: Plan #1 Proposal

Noble Energy

HALLIBURTON
Sperry Drilling

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6340.86	0.00	0.00	6340.86	0.00	0.00	0.00	0.00	0.00	
3	7403.36	85.00	136.08	7054.33	-470.89	453.52	8.00	136.08	653.78	
4	7478.36	85.00	136.08	7060.87	-524.71	505.35	0.00	0.00	728.49	
5	7540.86	90.00	136.08	7063.59	-569.67	548.65	8.00	0.00	790.91	
6	7544.86	90.32	136.08	7063.58	-572.55	551.43	8.00	-0.02	794.91	
7	12234.17	90.32	136.08	7037.38	-3950.04	3804.35	0.00	0.00	5484.15	DF Ranch PC GK17-99HZ Plan #1 BH Tgt



WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
DF Ranch PC GK17-99HZ Plan #1 BH Tgt	7037.38	-3950.04	3804.35	1579647.54	3353046.38	40.917520	-104.222580	Point

WELL DETAILS: DF Ranch PC GK17-99HZ

Ground Level:		5312.00	
Northing	Easting	Latitude	Longitude
1583597.68	3349241.93	40.928510	-104.236140

Plan: Plan #1 Proposal (DF Ranch PC GK17-99HZ/Plan #1)

Created By: Paul A. Bitzan Date: 14:11, June 28 2010

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____