



## **Bill Barrett Corp.**

Garfield County, Colorado

MDP 6 Pad

GGU Miller Fed 34B-32-691

Wellbore #1

Survey: Surveys

## **Standard Survey Report**

15 November, 2010



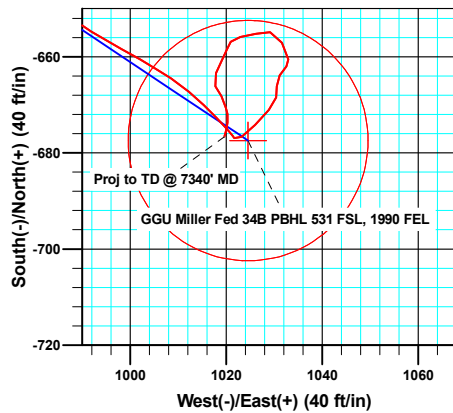
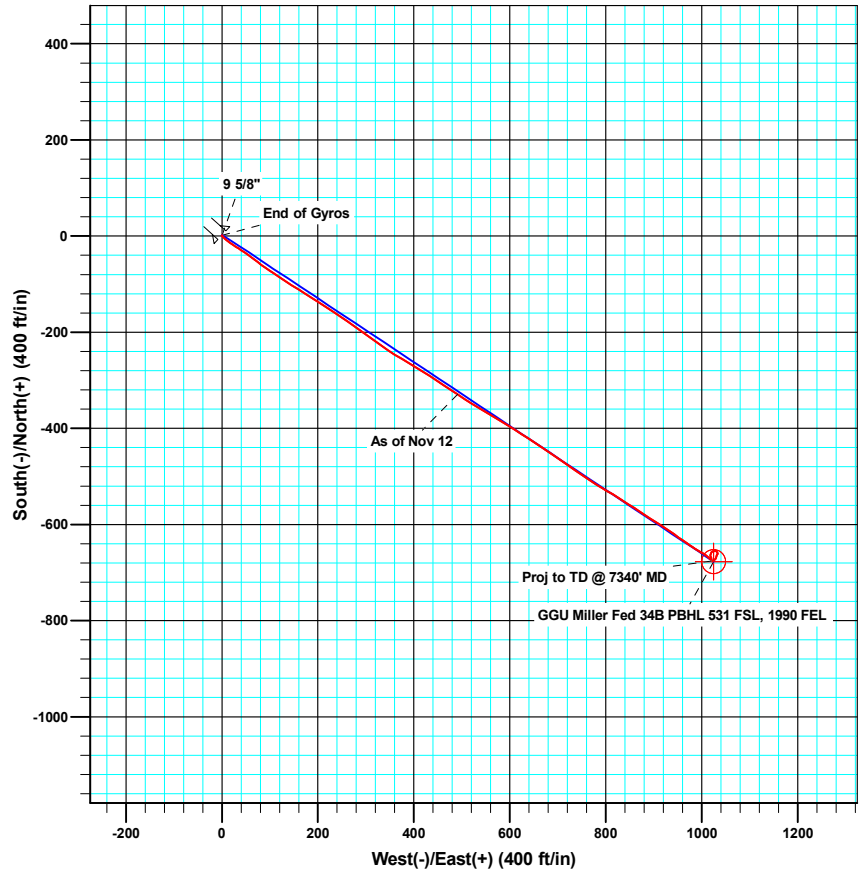
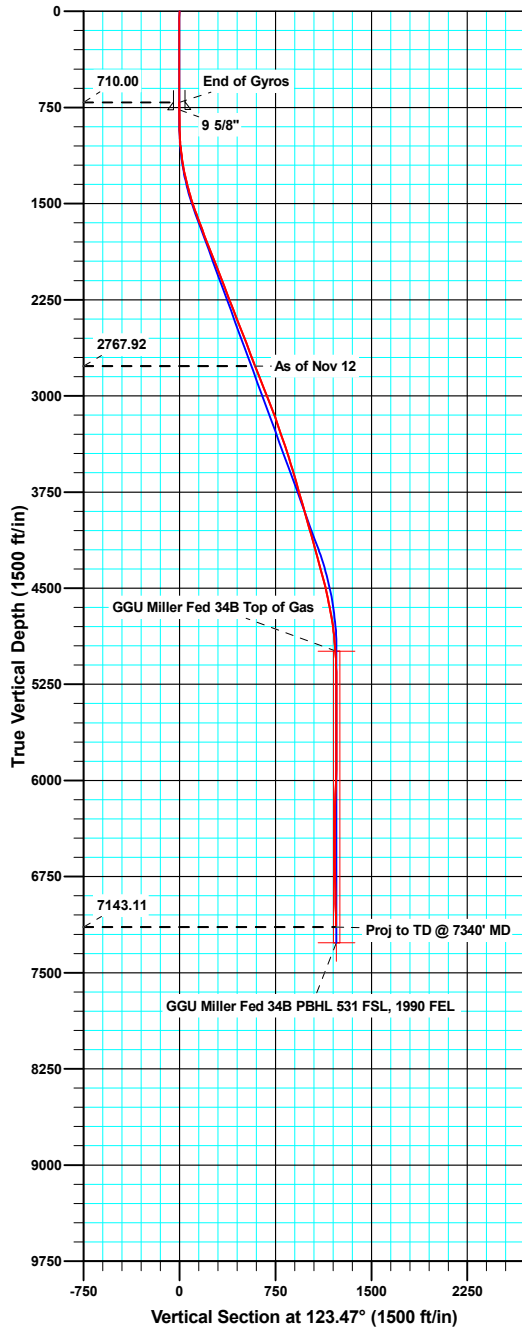


**Bill Barrett Corporation**

WELL DETAILS: GGU Miller Fed 34B-32-691

Ground Level: 6120.00

North American Datum 1983		US State Plane 1983		Colorado Central Zone	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1606585.63	2413275.40	39° 28' 49.52 N	107° 34' 43.78 W



Azimuths to True North  
Magnetic North: 10.22°

Magnetic Field  
Strength: 52392.4snT  
Dip Angle: 65.83°  
Date: 10/14/2010  
Model: IGRF200510

#### ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
2767.92	2870.00	21.30	124.40	-329.94	491.09	591.62	593.54	As of Nov 12
7143.11	7340.00	2.10	196.30	-676.65	1019.63	1223.72	1288.61	Proj to TD @ 7340' MD

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well GGU Miller Fed 34B-32-691
<b>Project:</b>	Garfield County, Colorado	<b>TVD Reference:</b>	KB @ 6142.00ft
<b>Site:</b>	MDP 6 Pad	<b>MD Reference:</b>	KB @ 6142.00ft
<b>Well:</b>	GGU Miller Fed 34B-32-691	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

<b>Project</b>	Garfield County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site	MDP 6 Pad				
Site Position:		Northing:	1,606,603.61 usft	Latitude:	39° 28' 49.69 N
From:	Lat/Long	Easting:	2,413,270.17 usft	Longitude:	107° 34' 43.85 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.31 °

Well	GGU Miller Fed 34B-32-691					
Well Position	+N/-S	0.00 ft	Northing:	1,606,585.62 usft	Latitude:	39° 28' 49.52 N
	+E/-W	0.00 ft	Easting:	2,413,275.40 usft	Longitude:	107° 34' 43.78 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,120.00 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	10/14/10	10.22	65.83	52,392

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	123.47	

<b>Survey Program</b>	<b>Date</b>	11/15/10			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
50.00	710.00	Gyro Surveys (Wellbore #1)	MWD	MWD - Standard	
881.00	7,340.00	Surveys (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
710.00	0.19	59.65	710.00	1.31	-0.23	-0.92	0.00	0.00	0.00	
768.50	0.28	132.00	768.50	1.27	-0.04	-0.73	0.50	0.16	123.67	
<b>9 5/8"</b>										
881.00	0.80	157.80	880.99	0.35	0.46	0.19	0.50	0.46	22.93	
973.00	2.50	134.40	972.95	-1.65	2.14	2.69	1.95	1.85	-25.43	
1,065.00	6.20	134.40	1,064.67	-6.53	7.12	9.54	4.02	4.02	0.00	
1,158.00	8.30	125.00	1,156.92	-13.89	16.21	21.19	2.59	2.26	-10.11	
1,250.00	11.20	122.50	1,247.59	-22.50	29.19	36.76	3.18	3.15	-2.72	
1,345.00	13.90	123.60	1,340.31	-33.78	46.48	57.40	2.85	2.84	1.16	
1,440.00	16.80	128.00	1,431.91	-48.55	66.81	82.50	3.29	3.05	4.63	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well GGU Miller Fed 34B-32-691
<b>Project:</b>	Garfield County, Colorado	<b>TVD Reference:</b>	KB @ 6142.00ft
<b>Site:</b>	MDP 6 Pad	<b>MD Reference:</b>	KB @ 6142.00ft
<b>Well:</b>	GGU Miller Fed 34B-32-691	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

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)
1,536.00	18.60	124.90	1,523.37	-65.85	90.30	111.64	2.12	1.88	-3.23
1,631.00	20.90	122.80	1,612.77	-83.70	116.97	143.74	2.53	2.42	-2.21
1,726.00	20.70	123.50	1,701.58	-102.15	145.22	177.47	0.34	-0.21	0.74
1,822.00	21.80	121.60	1,791.05	-120.85	174.55	212.25	1.35	1.15	-1.98
1,917.00	21.40	123.40	1,879.38	-139.64	204.04	247.22	0.81	-0.42	1.89
2,012.00	21.00	123.50	1,967.95	-158.57	232.71	281.57	0.42	-0.42	0.11
2,108.00	21.30	124.20	2,057.49	-177.87	261.47	316.21	0.41	0.31	0.73
2,203.00	21.40	125.20	2,145.97	-197.56	289.91	350.79	0.40	0.11	1.05
2,298.00	21.00	126.50	2,234.54	-217.67	317.75	385.11	0.65	-0.42	1.37
2,393.00	20.70	124.20	2,323.32	-237.24	345.32	418.90	0.92	-0.32	-2.42
2,489.00	21.30	120.10	2,412.95	-255.52	374.44	453.27	1.65	0.63	-4.27
2,584.00	21.30	121.60	2,501.46	-273.21	404.07	487.74	0.57	0.00	1.58
2,679.00	21.40	123.30	2,589.94	-291.77	433.25	522.32	0.66	0.11	1.79
2,775.00	21.20	123.00	2,679.38	-310.84	462.44	557.19	0.24	-0.21	-0.31
2,870.00	21.30	124.40	2,767.92	-329.94	491.09	591.62	0.54	0.11	1.47
2,965.00	21.40	120.90	2,856.41	-348.59	520.20	626.19	1.35	0.11	-3.68
3,061.00	21.50	121.30	2,945.76	-366.73	550.26	661.26	0.18	0.10	0.42
3,156.00	21.90	120.60	3,034.03	-384.79	580.38	696.35	0.50	0.42	-0.74
3,251.00	20.60	122.30	3,122.57	-402.74	609.76	730.76	1.51	-1.37	1.79
3,347.00	19.50	123.60	3,212.75	-420.63	637.38	763.67	1.24	-1.15	1.35
3,442.00	18.70	123.80	3,302.52	-437.88	663.24	794.75	0.84	-0.84	0.21
3,537.00	18.50	123.60	3,392.55	-454.69	688.45	825.05	0.22	-0.21	-0.21
3,633.00	18.20	126.00	3,483.67	-471.93	713.27	855.26	0.85	-0.31	2.50
3,728.00	16.80	123.10	3,574.28	-488.15	736.77	883.81	1.74	-1.47	-3.05
3,824.00	16.30	123.60	3,666.30	-503.18	759.62	911.16	0.54	-0.52	0.52
3,919.00	15.70	124.00	3,757.62	-517.75	781.38	937.34	0.64	-0.63	0.42
4,015.00	15.40	118.70	3,850.11	-531.13	803.33	963.04	1.51	-0.31	-5.52
4,110.00	16.20	121.70	3,941.52	-544.15	825.67	988.85	1.20	0.84	3.16
4,205.00	15.40	123.80	4,032.93	-558.14	847.42	1,014.71	1.03	-0.84	2.21
4,300.00	16.50	122.60	4,124.27	-572.42	869.27	1,040.82	1.21	1.16	-1.26
4,396.00	15.60	123.00	4,216.53	-586.80	891.58	1,067.36	0.94	-0.94	0.42
4,491.00	14.20	123.20	4,308.33	-600.14	912.05	1,091.78	1.47	-1.47	0.21
4,587.00	15.20	124.10	4,401.19	-613.64	932.32	1,116.14	1.07	1.04	0.94
4,682.00	14.00	125.90	4,493.12	-627.36	951.94	1,140.08	1.35	-1.26	1.89
4,777.00	12.40	123.50	4,585.61	-639.73	969.76	1,161.76	1.78	-1.68	-2.53
4,873.00	10.10	125.30	4,679.76	-650.28	985.23	1,180.48	2.42	-2.40	1.88
4,968.00	8.50	118.10	4,773.51	-658.40	998.22	1,195.80	2.08	-1.68	-7.58
5,063.00	5.90	124.30	4,867.75	-664.46	1,008.45	1,207.67	2.85	-2.74	6.53
5,159.00	4.80	134.40	4,963.34	-670.05	1,015.39	1,216.55	1.50	-1.15	10.52
5,254.00	3.00	138.60	5,058.11	-674.70	1,019.88	1,222.85	1.92	-1.89	4.42
5,350.00	0.40	154.60	5,154.06	-676.89	1,021.68	1,225.57	2.73	-2.71	16.67
5,445.00	1.80	69.80	5,249.05	-676.67	1,023.23	1,226.74	1.90	1.47	-89.26
5,540.00	2.90	35.30	5,343.97	-674.20	1,026.02	1,227.70	1.84	1.16	-36.32

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<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

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)	
5,636.00	2.20	51.80	5,439.88	-671.07	1,028.87	1,228.35	1.05	-0.73	17.19	
5,731.00	1.80	4.80	5,534.82	-668.46	1,030.43	1,228.21	1.72	-0.42	-49.47	
5,826.00	1.00	358.00	5,629.79	-666.14	1,030.52	1,227.01	0.86	-0.84	-7.16	
5,922.00	1.90	24.60	5,725.76	-663.86	1,031.15	1,226.28	1.15	0.94	27.71	
6,017.00	1.00	59.30	5,820.73	-662.01	1,032.52	1,226.40	1.28	-0.95	36.53	
6,113.00	1.30	344.60	5,916.72	-660.53	1,032.95	1,225.95	1.47	0.31	-77.81	
6,207.00	3.20	336.00	6,010.64	-657.10	1,031.60	1,222.93	2.05	2.02	-9.15	
6,302.00	1.70	262.90	6,105.57	-654.85	1,029.13	1,219.62	3.32	-1.58	-76.95	
6,398.00	1.80	262.50	6,201.53	-655.23	1,026.22	1,217.40	0.10	0.10	-0.42	
6,493.00	2.20	254.50	6,296.47	-655.91	1,022.98	1,215.08	0.51	0.42	-8.42	
6,589.00	0.60	205.50	6,392.44	-656.85	1,020.99	1,213.94	1.94	-1.67	-51.04	
6,684.00	1.10	206.50	6,487.43	-658.12	1,020.37	1,214.12	0.53	0.53	1.05	
6,779.00	1.70	206.20	6,582.40	-660.20	1,019.34	1,214.41	0.63	0.63	-0.32	
6,875.00	2.50	203.50	6,678.33	-663.40	1,017.88	1,214.95	0.84	0.83	-2.81	
6,970.00	1.30	136.80	6,773.29	-666.08	1,017.79	1,216.36	2.44	-1.26	-70.21	
7,066.00	1.70	160.00	6,869.26	-668.22	1,019.02	1,218.56	0.75	0.42	24.17	
7,161.00	1.40	158.40	6,964.22	-670.62	1,019.93	1,220.65	0.32	-0.32	-1.68	
7,256.00	2.30	181.10	7,059.17	-673.60	1,020.32	1,222.62	1.20	0.95	23.89	
7,293.00	2.10	196.30	7,096.15	-675.00	1,020.12	1,223.22	1.66	-0.54	41.08	
7,340.00	2.10	196.30	7,143.12	-676.65	1,019.63	1,223.72	0.00	0.00	0.00	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (ft)	Hole Diameter (ft)
768.50	768.50	9 5/8"		0.80	1.02

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,870.00	2,767.92	-329.94	491.09	As of Nov 12	
7,340.00	7,143.12	-676.65	1,019.63	Proj to TD @ 7340' MD	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_