



**Bill Barrett Corporation**

## **Bill Barrett Corp.**

Garfield County, Colorado

MDP 15 Pad

GGU Swanson 33A-29-691

Wellbore #1

Survey: Surveys

## **Standard Survey Report**

04 October, 2010

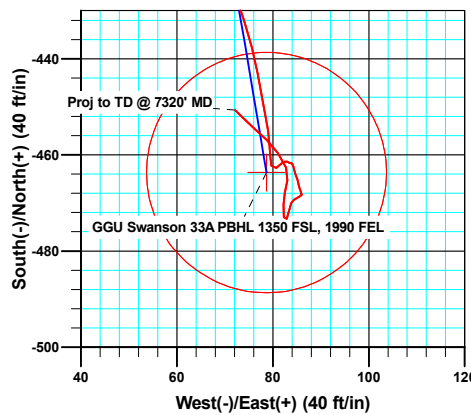
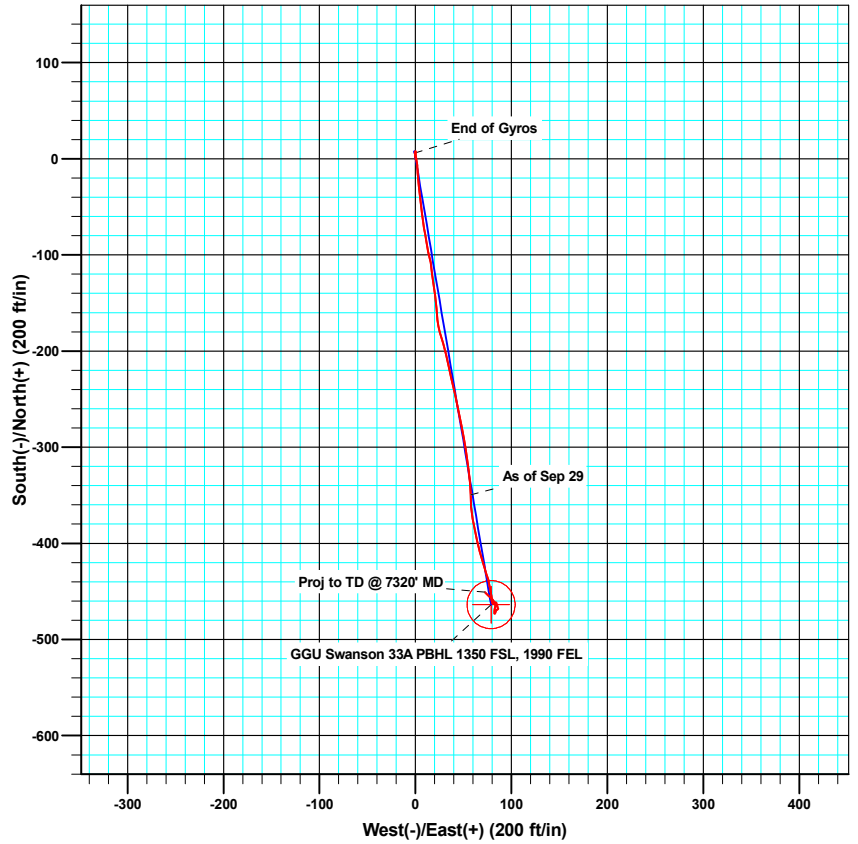
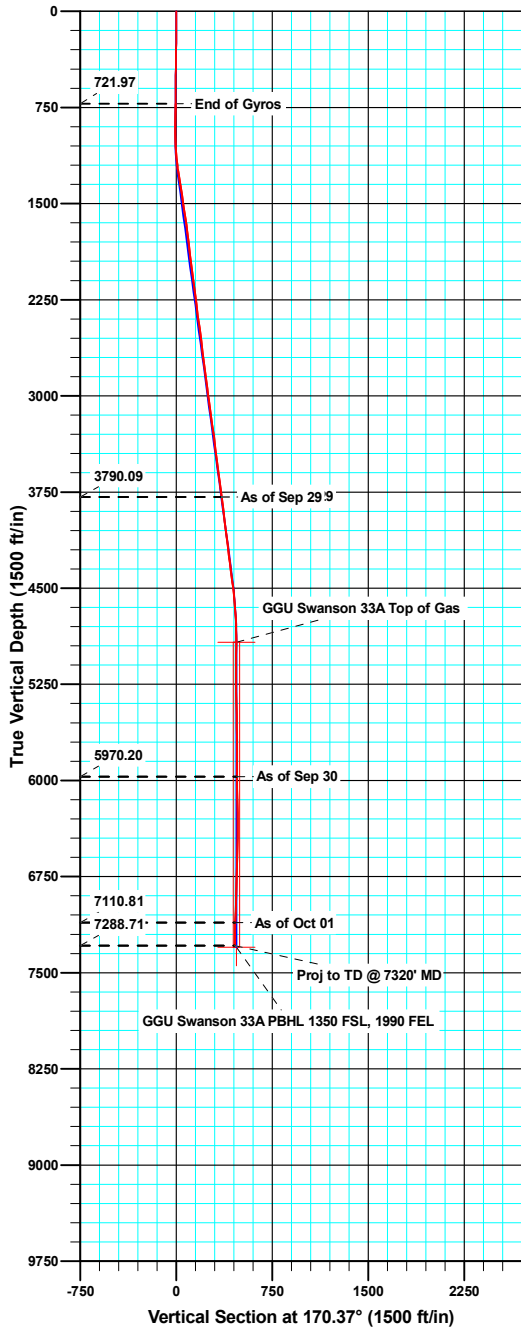




WELL DETAILS: GGU Swanson 33A-29-691

Ground Level: 6030.20

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
 +N/-S +E/-W Northing Easting Latitude Longitude  
 0.00 0.00 1612465.40 2414288.40 39° 29' 47.84 N 107° 34' 32.57 W



T  
M  
 Azimuths to True North  
 Magnetic North: 10.23°  
 Magnetic Field  
 Strength: 52411.5snT  
 Dip Angle: 65.85°  
 Date: 09/10/2010  
 Model: IGRF200510

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
3790.09	3814.00	6.90	178.60	-349.57	57.45	354.26	366.41	As of Sep 29
5970.20	6001.00	0.70	258.40	-468.70	85.51	476.41	496.75	As of Sep 30
7110.81	7142.00	1.90	314.30	-454.73	76.34	461.09	525.96	As of Oct 01
7288.71	7320.00	1.90	314.30	-450.61	72.12	456.32	531.86	Proj to TD @ 7320' MD



<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well GGU Swanson 33A-29-691
<b>Project:</b>	Garfield County, Colorado	<b>TVD Reference:</b>	KB @ 6053.20ft
<b>Site:</b>	MDP 15 Pad	<b>MD Reference:</b>	KB @ 6053.20ft
<b>Well:</b>	GGU Swanson 33A-29-691	<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		

<b>Site</b>	MDP 15 Pad				
<b>Site Position:</b>		<b>Northing:</b>	1,612,474.12 usft	<b>Latitude:</b>	39° 29' 47.92 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,414,257.84 usft	<b>Longitude:</b>	107° 34' 32.97 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	1.10 ft	<b>Grid Convergence:</b>	-1.31 °

<b>Well</b>	GGU Swanson 33A-29-691					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	1,612,465.40 usft	<b>Latitude:</b>	39° 29' 47.84 N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,414,288.40 usft	<b>Longitude:</b>	107° 34' 32.57 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	6,030.20 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	09/10/10	10.24	65.85	52,411

<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	170.37	

<b>Survey Program</b>	<b>Date</b>	10/04/10			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
50.00	722.00	Gyro Surveys (Wellbore #1)	MWD	MWD - Standard	
870.00	7,320.00	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>	
722.00	0.72	347.34	721.97	5.77	-0.61	-5.79	0.00	0.00	0.00	
870.00	1.00	31.30	869.96	7.78	-0.14	-7.69	0.47	0.19	29.70	
961.00	1.00	181.90	960.95	7.66	0.25	-7.51	2.13	0.00	165.49	
1,057.00	3.30	176.40	1,056.88	4.07	0.39	-3.94	2.40	2.40	-5.73	
1,152.00	5.00	170.70	1,151.63	-2.75	1.23	2.92	1.84	1.79	-6.00	
1,247.00	9.10	177.10	1,245.89	-14.34	2.28	14.52	4.39	4.32	6.74	
1,342.00	8.80	172.90	1,339.73	-29.06	3.56	29.24	0.76	-0.32	-4.42	
1,437.00	8.80	173.60	1,433.62	-43.49	5.27	43.76	0.11	0.00	0.74	
1,532.00	8.70	174.00	1,527.51	-57.86	6.83	58.18	0.12	-0.11	0.42	
1,627.00	8.80	168.90	1,621.41	-72.13	8.98	72.62	0.82	0.11	-5.37	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well GGU Swanson 33A-29-691
<b>Project:</b>	Garfield County, Colorado	<b>TVD Reference:</b>	KB @ 6053.20ft
<b>Site:</b>	MDP 15 Pad	<b>MD Reference:</b>	KB @ 6053.20ft
<b>Well:</b>	GGU Swanson 33A-29-691	<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)	
1,722.00	7.20	172.70	1,715.48	-85.17	11.14	85.83	1.77	-1.68	4.00	
1,817.00	7.10	166.50	1,809.74	-96.78	13.26	97.64	0.82	-0.11	-6.53	
1,912.00	6.80	169.30	1,904.04	-108.02	15.68	109.12	0.48	-0.32	2.95	
2,008.00	7.00	174.40	1,999.35	-119.43	17.30	120.64	0.67	0.21	5.31	
2,103.00	7.30	172.00	2,093.61	-131.16	18.71	132.45	0.45	0.32	-2.53	
2,198.00	7.20	171.20	2,187.85	-143.02	20.46	144.43	0.15	-0.11	-0.84	
2,293.00	7.60	176.80	2,282.06	-155.18	21.72	156.63	0.87	0.42	5.89	
2,388.00	7.60	173.70	2,376.23	-167.70	22.76	169.14	0.43	0.00	-3.26	
2,483.00	7.70	163.10	2,470.39	-180.03	25.30	181.73	1.49	0.11	-11.16	
2,578.00	7.30	163.10	2,564.57	-191.90	28.91	194.03	0.42	-0.42	0.00	
2,673.00	7.40	167.60	2,658.79	-203.65	31.97	206.12	0.61	0.11	4.74	
2,768.00	7.50	168.70	2,752.99	-215.70	34.50	218.43	0.18	0.11	1.16	
2,863.00	7.60	167.60	2,847.17	-227.92	37.07	230.91	0.18	0.11	-1.16	
2,958.00	6.70	164.60	2,941.43	-239.39	39.89	242.69	1.03	-0.95	-3.16	
3,053.00	8.10	169.50	3,035.64	-251.32	42.58	254.90	1.62	1.47	5.16	
3,148.00	8.00	167.30	3,129.70	-264.35	45.25	268.19	0.34	-0.11	-2.32	
3,244.00	7.80	169.00	3,224.79	-277.26	47.96	281.38	0.32	-0.21	1.77	
3,339.00	7.50	170.30	3,318.94	-289.70	50.24	294.02	0.36	-0.32	1.37	
3,434.00	6.80	171.00	3,413.20	-301.37	52.16	305.85	0.74	-0.74	0.74	
3,529.00	7.50	171.60	3,507.46	-313.06	53.95	317.67	0.74	0.74	0.63	
3,624.00	7.60	174.80	3,601.64	-325.44	55.42	330.13	0.45	0.11	3.37	
3,719.00	7.40	173.80	3,695.83	-337.78	56.65	342.50	0.25	-0.21	-1.05	
3,814.00	6.90	178.60	3,790.09	-349.57	57.45	354.26	0.82	-0.53	5.05	
3,909.00	7.80	176.40	3,884.31	-361.71	58.00	366.31	0.99	0.95	-2.32	
4,004.00	7.60	169.10	3,978.45	-374.31	59.59	379.01	1.05	-0.21	-7.68	
4,099.00	6.70	169.10	4,072.71	-385.92	61.83	390.83	0.95	-0.95	0.00	
4,195.00	7.30	168.40	4,168.00	-397.40	64.11	402.52	0.63	0.63	-0.73	
4,289.00	6.50	163.80	4,261.32	-408.36	66.80	413.78	1.03	-0.85	-4.89	
4,385.00	7.80	163.60	4,356.57	-419.82	70.15	425.64	1.35	1.35	-0.21	
4,480.00	7.50	161.40	4,450.72	-431.88	73.95	438.17	0.44	-0.32	-2.32	
4,575.00	6.40	170.20	4,545.03	-442.98	76.83	449.59	1.61	-1.16	9.26	
4,670.00	4.30	168.70	4,639.61	-451.69	78.43	458.44	2.22	-2.21	-1.58	
4,765.00	3.40	175.50	4,734.39	-457.99	79.35	464.81	1.06	-0.95	7.16	
4,860.00	1.70	173.80	4,829.30	-462.20	79.72	469.02	1.79	-1.79	-1.79	
4,955.00	1.50	44.30	4,924.28	-462.71	80.74	469.70	3.05	-0.21	-136.32	
5,050.00	0.90	58.20	5,019.26	-461.43	82.24	468.68	0.70	-0.63	14.63	
5,145.00	0.40	163.20	5,114.25	-461.35	82.97	468.73	1.13	-0.53	110.53	
5,240.00	0.40	87.50	5,209.25	-461.66	83.40	469.10	0.52	0.00	-79.68	
5,336.00	0.40	105.10	5,305.25	-461.73	84.06	469.28	0.13	0.00	18.33	
5,431.00	0.80	182.90	5,400.25	-462.48	84.35	470.07	0.86	0.42	81.89	
5,526.00	0.90	151.10	5,495.24	-463.79	84.67	471.42	0.50	0.11	-33.47	
5,621.00	1.00	169.30	5,590.22	-465.26	85.19	472.95	0.33	0.11	19.16	
5,716.00	0.80	165.70	5,685.21	-466.72	85.50	474.44	0.22	-0.21	-3.79	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well GGU Swanson 33A-29-691
<b>Project:</b>	Garfield County, Colorado	<b>TVD Reference:</b>	KB @ 6053.20ft
<b>Site:</b>	MDP 15 Pad	<b>MD Reference:</b>	KB @ 6053.20ft
<b>Well:</b>	GGU Swanson 33A-29-691	<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)	
5,811.00	0.40	149.00	5,780.21	-467.64	85.84	475.41	0.46	-0.42	-17.58	
5,906.00	0.40	173.70	5,875.20	-468.26	86.05	476.05	0.18	0.00	26.00	
6,001.00	0.70	258.40	5,970.20	-468.70	85.51	476.41	0.81	0.32	89.16	
6,096.00	0.80	227.20	6,065.19	-469.27	84.46	476.79	0.44	0.11	-32.84	
6,191.00	0.40	204.10	6,160.19	-470.03	83.84	477.43	0.48	-0.42	-24.32	
6,286.00	1.10	189.20	6,255.18	-471.23	83.56	478.57	0.76	0.74	-15.68	
6,381.00	1.50	205.20	6,350.15	-473.25	82.88	480.45	0.56	0.42	16.84	
6,476.00	1.70	358.20	6,445.14	-472.97	82.31	480.07	3.28	0.21	161.05	
6,572.00	1.40	0.50	6,541.10	-470.37	82.27	477.51	0.32	-0.31	2.40	
6,667.00	1.60	8.60	6,636.07	-467.90	82.48	475.11	0.31	0.21	8.53	
6,762.00	1.60	14.70	6,731.04	-465.31	83.02	472.64	0.18	0.00	6.42	
6,857.00	1.80	337.60	6,826.00	-462.65	82.78	469.97	1.16	0.21	-39.05	
6,952.00	2.50	326.00	6,920.93	-459.55	81.06	466.63	0.86	0.74	-12.21	
7,047.00	1.90	309.50	7,015.86	-456.83	78.68	463.55	0.91	-0.63	-17.37	
7,142.00	1.90	314.30	7,110.81	-454.73	76.34	461.09	0.17	0.00	5.05	
7,320.00	1.90	314.30	7,288.71	-450.61	72.12	456.32	0.00	0.00	0.00	

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
3,814.00	3,790.09	-349.57	57.45	As of Sep 29	
6,001.00	5,970.20	-468.70	85.51	As of Sep 30	
7,142.00	7,110.81	-454.73	76.34	As of Oct 01	
7,320.00	7,288.71	-450.61	72.12	Proj to TD @ 7320' MD	

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