

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**MDP #11**

**GGU Swanson #32C-29-691**

**GGU Swanson #32C-26-691**

**Plan: Design #1**

## **Standard Planning Report**

**28 April, 2010**

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well GGU Swanson #32C-29-691
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Site:</b>	MDP #11	<b>North Reference:</b>	Grid
<b>Well:</b>	GGU Swanson #32C-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Swanson #32C-26-691		
<b>Design:</b>	Design #1		

<b>Project</b>	GARFIELD COUNTY, COLORADO NAD 1983		
<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 #11		
<b>Site Position:</b>		<b>Northing:</b>	1,614,678.473 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,415,085.675 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	39° 30' 9.890 N
		<b>Longitude:</b>	107° 34' 23.0500 W
		<b>Grid Convergence:</b>	-1.31 °

<b>Well</b>	GGU Swanson #32C-29-691		
<b>Well Position</b>	<b>+N/-S</b>	9.19 ft	<b>Northing:</b>
	<b>+E/-W</b>	-48.40 ft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>
			ft
			<b>Latitude:</b>
			39° 30' 9.970 N
			<b>Longitude:</b>
			107° 34' 23.6700 W
			<b>Ground Level:</b>
			0.00 ft

<b>Wellbore</b>	GGU Swanson #32C-26-691				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	12/31/2009	10.33	65.87	52,532

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<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	229.85

<b>Plan Sections</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>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
842.70	0.00	0.00	842.70	0.00	0.00	0.00	0.00	0.00	0.00	
1,440.54	14.95	229.85	1,433.78	-50.00	-59.26	2.50	2.50	0.00	229.85	
4,257.99	14.95	229.85	4,155.92	-518.55	-614.66	0.00	0.00	0.00	0.00	
4,855.83	0.00	0.00	4,747.00	-568.55	-673.92	2.50	-2.50	0.00	180.00	
7,535.83	0.00	0.00	7,427.00	-568.55	-673.92	0.00	0.00	0.00	0.00	PBHL_GGU Feder

# BBC

## Planning Report

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<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Site:</b>	MDP #11	<b>North Reference:</b>	Grid
<b>Well:</b>	GGU Swanson #32C-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Swanson #32C-26-691		
<b>Design:</b>	Design #1		

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)
0.00	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
200.00	0.00	0.00	200.00	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
400.00	0.00	0.00	400.00	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
600.00	0.00	0.00	600.00	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
742.70	0.00	0.00	742.70	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
842.70	0.00	0.00	842.70	0.00	0.00	0.00	0.00	0.00	0.00
900.00	1.43	229.85	899.99	-0.46	-0.55	0.72	2.50	2.50	0.00
1,000.00	3.93	229.85	999.88	-3.48	-4.12	5.40	2.50	2.50	0.00
1,100.00	6.43	229.85	1,099.46	-9.30	-11.03	14.43	2.50	2.50	0.00
1,200.00	8.93	229.85	1,198.55	-17.92	-21.24	27.80	2.50	2.50	0.00
1,300.00	11.43	229.85	1,296.97	-29.32	-34.76	45.47	2.50	2.50	0.00
1,400.00	13.93	229.85	1,394.52	-43.48	-51.54	67.43	2.50	2.50	0.00
1,440.54	14.95	229.85	1,433.78	-50.00	-59.26	77.53	2.50	2.50	0.00
1,500.00	14.95	229.85	1,491.23	-59.88	-70.98	92.87	0.00	0.00	0.00
1,600.00	14.95	229.85	1,587.85	-76.51	-90.70	118.66	0.00	0.00	0.00
1,700.00	14.95	229.85	1,684.47	-93.15	-110.41	144.45	0.00	0.00	0.00
1,800.00	14.95	229.85	1,781.08	-109.78	-130.12	170.24	0.00	0.00	0.00
1,900.00	14.95	229.85	1,877.70	-126.41	-149.83	196.03	0.00	0.00	0.00
2,000.00	14.95	229.85	1,974.32	-143.04	-169.55	221.82	0.00	0.00	0.00
2,100.00	14.95	229.85	2,070.93	-159.67	-189.26	247.61	0.00	0.00	0.00
2,200.00	14.95	229.85	2,167.55	-176.30	-208.97	273.41	0.00	0.00	0.00
2,300.00	14.95	229.85	2,264.17	-192.93	-228.69	299.20	0.00	0.00	0.00
2,400.00	14.95	229.85	2,360.78	-209.56	-248.40	324.99	0.00	0.00	0.00
2,500.00	14.95	229.85	2,457.40	-226.19	-268.11	350.78	0.00	0.00	0.00
2,600.00	14.95	229.85	2,554.02	-242.82	-287.82	376.57	0.00	0.00	0.00
2,700.00	14.95	229.85	2,650.63	-259.45	-307.54	402.36	0.00	0.00	0.00
2,800.00	14.95	229.85	2,747.25	-276.08	-327.25	428.15	0.00	0.00	0.00
2,900.00	14.95	229.85	2,843.87	-292.71	-346.96	453.94	0.00	0.00	0.00
3,000.00	14.95	229.85	2,940.49	-309.34	-366.67	479.73	0.00	0.00	0.00
3,100.00	14.95	229.85	3,037.10	-325.97	-386.39	505.52	0.00	0.00	0.00
3,200.00	14.95	229.85	3,133.72	-342.60	-406.10	531.31	0.00	0.00	0.00
3,300.00	14.95	229.85	3,230.34	-359.23	-425.81	557.11	0.00	0.00	0.00
3,400.00	14.95	229.85	3,326.95	-375.87	-445.53	582.90	0.00	0.00	0.00
3,500.00	14.95	229.85	3,423.57	-392.50	-465.24	608.69	0.00	0.00	0.00
3,581.18	14.95	229.85	3,502.00	-406.00	-481.24	629.62	0.00	0.00	0.00
Mesaverde									
3,600.00	14.95	229.85	3,520.19	-409.13	-484.95	634.48	0.00	0.00	0.00
3,700.00	14.95	229.85	3,616.80	-425.76	-504.66	660.27	0.00	0.00	0.00
3,800.00	14.95	229.85	3,713.42	-442.39	-524.38	686.06	0.00	0.00	0.00
3,900.00	14.95	229.85	3,810.04	-459.02	-544.09	711.85	0.00	0.00	0.00
4,000.00	14.95	229.85	3,906.65	-475.65	-563.80	737.64	0.00	0.00	0.00
4,100.00	14.95	229.85	4,003.27	-492.28	-583.52	763.43	0.00	0.00	0.00
4,200.00	14.95	229.85	4,099.89	-508.91	-603.23	789.22	0.00	0.00	0.00
4,257.99	14.95	229.85	4,155.92	-518.55	-614.66	804.18	0.00	0.00	0.00
4,300.00	13.90	229.85	4,196.60	-525.30	-622.66	814.64	2.50	-2.50	0.00
4,400.00	11.40	229.85	4,294.17	-539.42	-639.39	836.53	2.50	-2.50	0.00
4,413.08	11.07	229.85	4,307.00	-541.06	-641.34	839.08	2.50	-2.50	0.00

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<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Site:</b>	MDP #11	<b>North Reference:</b>	Grid
<b>Well:</b>	GGU Swanson #32C-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Swanson #32C-26-691		
<b>Design:</b>	Design #1		

### 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)
<b>Price Coal</b>									
4,500.00	8.90	229.85	4,392.60	-550.77	-652.85	854.15	2.50	-2.50	0.00
4,600.00	6.40	229.85	4,491.70	-559.35	-663.02	867.45	2.50	-2.50	0.00
4,700.00	3.90	229.85	4,591.29	-565.13	-669.87	876.42	2.50	-2.50	0.00
4,800.00	1.40	229.85	4,691.17	-568.11	-673.40	881.03	2.50	-2.50	0.00
4,855.83	0.00	0.00	4,747.00	-568.55	-673.92	881.71	2.50	-2.50	233.12
<b>Top of Gas</b>									
4,900.00	0.00	0.00	4,791.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,000.00	0.00	0.00	4,891.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,100.00	0.00	0.00	4,991.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,200.00	0.00	0.00	5,091.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,300.00	0.00	0.00	5,191.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,400.00	0.00	0.00	5,291.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,500.00	0.00	0.00	5,391.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,600.00	0.00	0.00	5,491.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,700.00	0.00	0.00	5,591.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,800.00	0.00	0.00	5,691.17	-568.55	-673.92	881.71	0.00	0.00	0.00
5,900.00	0.00	0.00	5,791.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,000.00	0.00	0.00	5,891.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,100.00	0.00	0.00	5,991.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,200.00	0.00	0.00	6,091.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,300.00	0.00	0.00	6,191.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,400.00	0.00	0.00	6,291.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,500.00	0.00	0.00	6,391.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,600.00	0.00	0.00	6,491.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,700.00	0.00	0.00	6,591.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,800.00	0.00	0.00	6,691.17	-568.55	-673.92	881.71	0.00	0.00	0.00
6,900.00	0.00	0.00	6,791.17	-568.55	-673.92	881.71	0.00	0.00	0.00
7,000.00	0.00	0.00	6,891.17	-568.55	-673.92	881.71	0.00	0.00	0.00
7,100.00	0.00	0.00	6,991.17	-568.55	-673.92	881.71	0.00	0.00	0.00
7,200.00	0.00	0.00	7,091.17	-568.55	-673.92	881.71	0.00	0.00	0.00
7,235.83	0.00	0.00	7,127.00	-568.55	-673.92	881.71	0.00	0.00	0.00
<b>Rollins</b>									
7,300.00	0.00	0.00	7,191.17	-568.55	-673.92	881.71	0.00	0.00	0.00
7,400.00	0.00	0.00	7,291.17	-568.55	-673.92	881.71	0.00	0.00	0.00
7,500.00	0.00	0.00	7,391.17	-568.55	-673.92	881.71	0.00	0.00	0.00
7,535.83	0.00	0.00	7,427.00	-568.55	-673.92	881.71	0.00	0.00	0.00

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
742.70	742.70	Surface Casing	9-5/8	12-1/4

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well GGU Swanson #32C-29-691
<b>Company:</b>	BILL BARRETT CORP	<b>TVD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Project:</b>	GARFIELD COUNTY, COLORADO NAD 1983	<b>MD Reference:</b>	WELL @ 0.00ft (Original Well Elev)
<b>Site:</b>	MDP #11	<b>North Reference:</b>	Grid
<b>Well:</b>	GGU Swanson #32C-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Swanson #32C-26-691		
<b>Design:</b>	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,581.18	3,502.00	Mesaverde		0.00		
4,413.08	4,307.00	Price Coal		0.00		
4,855.83	4,747.00	Top of Gas		0.00		
7,235.83	7,127.00	Rollins		0.00		

## WELL DETAILS: GGU Swanson #32C-29-691

Ground Level: 0.00  
 +N/-S+E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1614687.665 2415037.239 30° 9' 00" N 104° 23.6700 W



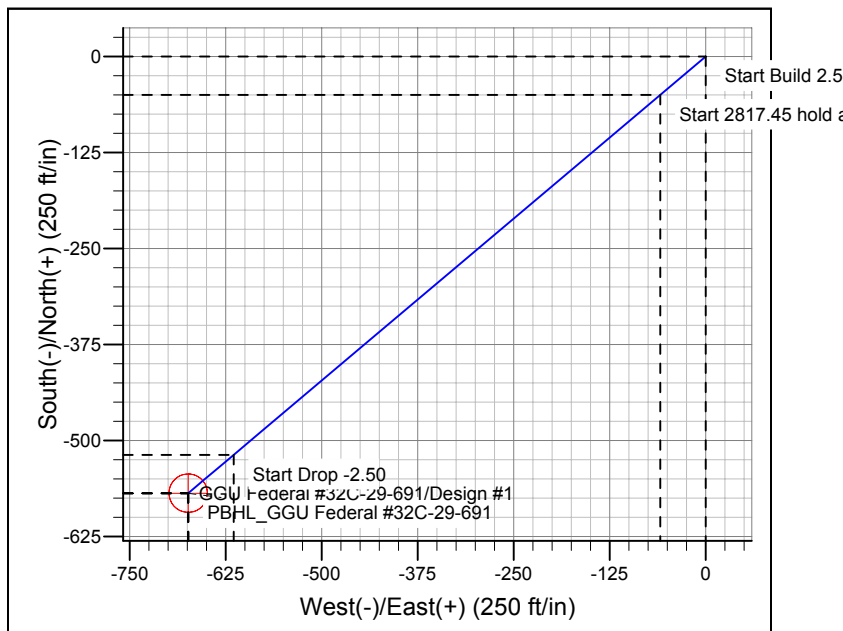
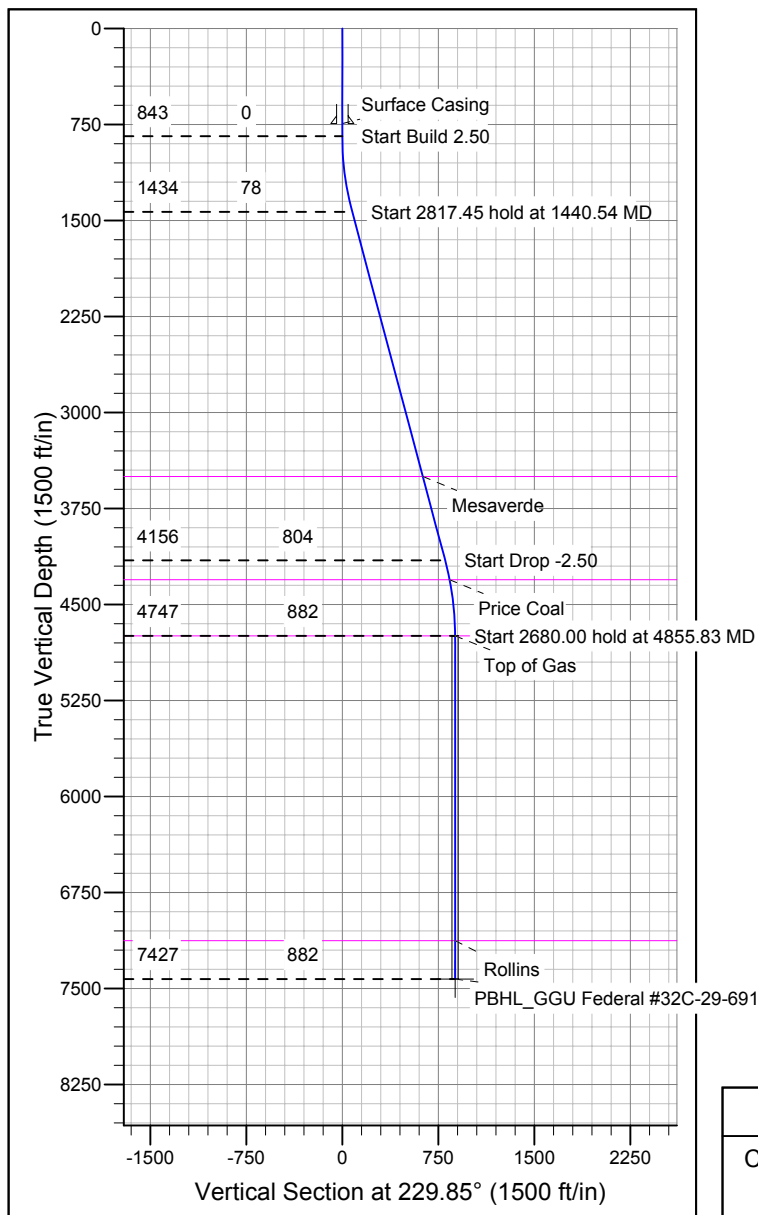
Azimuths to Grid North  
 True North: 1.31°  
 Magnetic North: 11.64°  
 Magnetic Field  
 Strength: 52532.0snT  
 Dip Angle: 65.87°  
 Date: 12/31/2009  
 Model: IGRF200510

## 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	842.70	0.00	0.00	842.70	0.00	0.00	0.00	0.00	0.00	
3	1440.54	14.95	229.85	1433.78	-50.00	-59.26	2.50	229.85	77.53	
4	4257.99	14.95	229.85	4155.92	-518.55	-614.66	0.00	0.00	804.18	
5	4855.83	0.00	0.00	4747.00	-568.55	-673.92	2.50	180.00	881.71	
6	7535.83	0.00	0.00	7427.00	-568.55	-673.92	0.00	0.00	881.71	PBHL_GGU Swanson #32C-29-691

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
PBHL_GGU Federal #32C-29-691	7427.00	-568.55	-673.92	Circle (Radius: 25.00)



## CASING DETAILS

TVD	MD	Name	Size
742.70	742.70	Surface Casing	9-5/8

## FORMATION TOP DETAILS

TVD	MD	Formation
3502.00	3581.18	Mesaverde
4307.00	4413.08	Price Coal
4747.00	4855.83	Top of Gas
7127.00	7235.83	Rollins

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well GGU Swanson #32C-29-691, Grid North  
 Vertical (TVD) Reference: WELL @ 0.00ft (Original Well Elev)  
 Section (VS) Reference: Slot - (0.00N, 0.00E)  
 Measured Depth Reference: WELL @ 0.00ft (Original Well Elev)  
 Calculation Method: Minimum Curvature