

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**MDP #11**

**GGU Federal #41A-29-691**

**GGU Federal #41A-29-691**

**Plan: Design #1**

## **Standard Planning Report**

**28 April, 2010**

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well GGU Federal #41A-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 Federal #41A-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Federal #41A-29-691		
<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 Federal #41A-29-691		
<b>Well Position</b>	<b>+N/-S</b>	-0.03 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<b>Wellbore</b>	GGU Federal #41A-29-691				
<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	81.93

<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	
839.70	0.00	0.00	839.70	0.00	0.00	0.00	0.00	0.00	0.00	
1,239.32	9.99	81.93	1,237.30	4.88	34.41	2.50	2.50	0.00	81.93	
4,419.65	9.99	81.93	4,369.40	82.31	580.68	0.00	0.00	0.00	0.00	
4,819.27	0.00	0.00	4,767.00	87.19	615.09	2.50	-2.50	0.00	180.00	
7,449.27	0.00	0.00	7,397.00	87.19	615.09	0.00	0.00	0.00	0.00	PBHL_GGU Fed 41

**BBC**  
Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well GGU Federal #41A-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 Federal #41A-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Federal #41A-29-691		
<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
739.70	0.00	0.00	739.70	0.00	0.00	0.00	0.00	0.00	0.00
<b>Surface Casing</b>									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
839.70	0.00	0.00	839.70	0.00	0.00	0.00	0.00	0.00	0.00
900.00	1.51	81.93	899.99	0.11	0.79	0.79	2.50	2.50	0.00
1,000.00	4.01	81.93	999.87	0.79	5.55	5.60	2.50	2.50	0.00
1,100.00	6.51	81.93	1,099.44	2.07	14.62	14.77	2.50	2.50	0.00
1,200.00	9.01	81.93	1,198.52	3.97	27.98	28.26	2.50	2.50	0.00
1,239.32	9.99	81.93	1,237.30	4.88	34.41	34.75	2.50	2.50	0.00
1,300.00	9.99	81.93	1,297.06	6.35	44.83	45.28	0.00	0.00	0.00
1,400.00	9.99	81.93	1,395.54	8.79	62.01	62.63	0.00	0.00	0.00
1,500.00	9.99	81.93	1,494.03	11.22	79.18	79.98	0.00	0.00	0.00
1,600.00	9.99	81.93	1,592.51	13.66	96.36	97.32	0.00	0.00	0.00
1,700.00	9.99	81.93	1,690.99	16.09	113.54	114.67	0.00	0.00	0.00
1,800.00	9.99	81.93	1,789.48	18.53	130.71	132.02	0.00	0.00	0.00
1,900.00	9.99	81.93	1,887.96	20.96	147.89	149.37	0.00	0.00	0.00
2,000.00	9.99	81.93	1,986.44	23.40	165.07	166.72	0.00	0.00	0.00
2,100.00	9.99	81.93	2,084.93	25.83	182.24	184.07	0.00	0.00	0.00
2,200.00	9.99	81.93	2,183.41	28.27	199.42	201.41	0.00	0.00	0.00
2,300.00	9.99	81.93	2,281.89	30.70	216.60	218.76	0.00	0.00	0.00
2,400.00	9.99	81.93	2,380.38	33.14	233.77	236.11	0.00	0.00	0.00
2,500.00	9.99	81.93	2,478.86	35.57	250.95	253.46	0.00	0.00	0.00
2,600.00	9.99	81.93	2,577.35	38.01	268.13	270.81	0.00	0.00	0.00
2,700.00	9.99	81.93	2,675.83	40.44	285.30	288.16	0.00	0.00	0.00
2,800.00	9.99	81.93	2,774.31	42.88	302.48	305.51	0.00	0.00	0.00
2,900.00	9.99	81.93	2,872.80	45.31	319.66	322.85	0.00	0.00	0.00
3,000.00	9.99	81.93	2,971.28	47.75	336.83	340.20	0.00	0.00	0.00
3,100.00	9.99	81.93	3,069.76	50.18	354.01	357.55	0.00	0.00	0.00
3,200.00	9.99	81.93	3,168.25	52.62	371.19	374.90	0.00	0.00	0.00
3,300.00	9.99	81.93	3,266.73	55.05	388.37	392.25	0.00	0.00	0.00
3,400.00	9.99	81.93	3,365.21	57.49	405.54	409.60	0.00	0.00	0.00
3,500.00	9.99	81.93	3,463.70	59.92	422.72	426.94	0.00	0.00	0.00
3,533.81	9.99	81.93	3,497.00	60.74	428.53	432.81	0.00	0.00	0.00
<b>Mesaverde</b>									
3,600.00	9.99	81.93	3,562.18	62.36	439.90	444.29	0.00	0.00	0.00
3,700.00	9.99	81.93	3,660.67	64.79	457.07	461.64	0.00	0.00	0.00
3,800.00	9.99	81.93	3,759.15	67.23	474.25	478.99	0.00	0.00	0.00
3,900.00	9.99	81.93	3,857.63	69.66	491.43	496.34	0.00	0.00	0.00
4,000.00	9.99	81.93	3,956.12	72.10	508.60	513.69	0.00	0.00	0.00
4,100.00	9.99	81.93	4,054.60	74.53	525.78	531.03	0.00	0.00	0.00
4,200.00	9.99	81.93	4,153.08	76.97	542.96	548.38	0.00	0.00	0.00
4,300.00	9.99	81.93	4,251.57	79.40	560.13	565.73	0.00	0.00	0.00
4,346.13	9.99	81.93	4,297.00	80.52	568.06	573.73	0.00	0.00	0.00
<b>Price Coal</b>									
4,400.00	9.99	81.93	4,350.05	81.83	577.31	583.08	0.00	0.00	0.00

# BBC

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<b>Site:</b>	MDP #11	<b>North Reference:</b>	Grid
<b>Well:</b>	GGU Federal #41A-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Federal #41A-29-691		
<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)
4,419.65	9.99	81.93	4,369.40	82.31	580.68	586.49	0.00	0.00	0.00
4,500.00	7.98	81.93	4,448.76	84.07	593.11	599.04	2.50	-2.50	0.00
4,600.00	5.48	81.93	4,548.07	85.72	604.71	610.76	2.50	-2.50	0.00
4,700.00	2.98	81.93	4,647.79	86.76	612.02	618.14	2.50	-2.50	0.00
4,800.00	0.48	81.93	4,747.73	87.18	615.01	621.16	2.50	-2.50	0.00
4,819.27	0.00	0.00	4,767.00	87.19	615.09	621.24	2.50	-2.50	0.00
<b>Top of Gas</b>									
4,900.00	0.00	0.00	4,847.73	87.19	615.09	621.24	0.00	0.00	0.00
5,000.00	0.00	0.00	4,947.73	87.19	615.09	621.24	0.00	0.00	0.00
5,100.00	0.00	0.00	5,047.73	87.19	615.09	621.24	0.00	0.00	0.00
5,200.00	0.00	0.00	5,147.73	87.19	615.09	621.24	0.00	0.00	0.00
5,300.00	0.00	0.00	5,247.73	87.19	615.09	621.24	0.00	0.00	0.00
5,400.00	0.00	0.00	5,347.73	87.19	615.09	621.24	0.00	0.00	0.00
5,500.00	0.00	0.00	5,447.73	87.19	615.09	621.24	0.00	0.00	0.00
5,600.00	0.00	0.00	5,547.73	87.19	615.09	621.24	0.00	0.00	0.00
5,700.00	0.00	0.00	5,647.73	87.19	615.09	621.24	0.00	0.00	0.00
5,800.00	0.00	0.00	5,747.73	87.19	615.09	621.24	0.00	0.00	0.00
5,900.00	0.00	0.00	5,847.73	87.19	615.09	621.24	0.00	0.00	0.00
6,000.00	0.00	0.00	5,947.73	87.19	615.09	621.24	0.00	0.00	0.00
6,100.00	0.00	0.00	6,047.73	87.19	615.09	621.24	0.00	0.00	0.00
6,200.00	0.00	0.00	6,147.73	87.19	615.09	621.24	0.00	0.00	0.00
6,300.00	0.00	0.00	6,247.73	87.19	615.09	621.24	0.00	0.00	0.00
6,400.00	0.00	0.00	6,347.73	87.19	615.09	621.24	0.00	0.00	0.00
6,500.00	0.00	0.00	6,447.73	87.19	615.09	621.24	0.00	0.00	0.00
6,600.00	0.00	0.00	6,547.73	87.19	615.09	621.24	0.00	0.00	0.00
6,700.00	0.00	0.00	6,647.73	87.19	615.09	621.24	0.00	0.00	0.00
6,800.00	0.00	0.00	6,747.73	87.19	615.09	621.24	0.00	0.00	0.00
6,900.00	0.00	0.00	6,847.73	87.19	615.09	621.24	0.00	0.00	0.00
7,000.00	0.00	0.00	6,947.73	87.19	615.09	621.24	0.00	0.00	0.00
7,100.00	0.00	0.00	7,047.73	87.19	615.09	621.24	0.00	0.00	0.00
7,149.27	0.00	0.00	7,097.00	87.19	615.09	621.24	0.00	0.00	0.00
<b>Rollins</b>									
7,200.00	0.00	0.00	7,147.73	87.19	615.09	621.24	0.00	0.00	0.00
7,300.00	0.00	0.00	7,247.73	87.19	615.09	621.24	0.00	0.00	0.00
7,400.00	0.00	0.00	7,347.73	87.19	615.09	621.24	0.00	0.00	0.00
7,449.27	0.00	0.00	7,397.00	87.19	615.09	621.24	0.00	0.00	0.00

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
739.70	739.70	Surface Casing	9-5/8	12-1/4

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well GGU Federal #41A-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 Federal #41A-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Federal #41A-29-691		
<b>Design:</b>	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,533.81	3,497.00	Mesaverde		0.00		
4,346.13	4,297.00	Price Coal		0.00		
4,819.27	4,767.00	Top of Gas		0.00		
7,149.27	7,097.00	Rollins		0.00		

## WELL DETAILS: GGU Federal #41A-29-691

Ground Level: 0.00  
 +N/-S+E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1614678.446 2415085.639 39° 30' 9.897" N 104° 23.0500 W



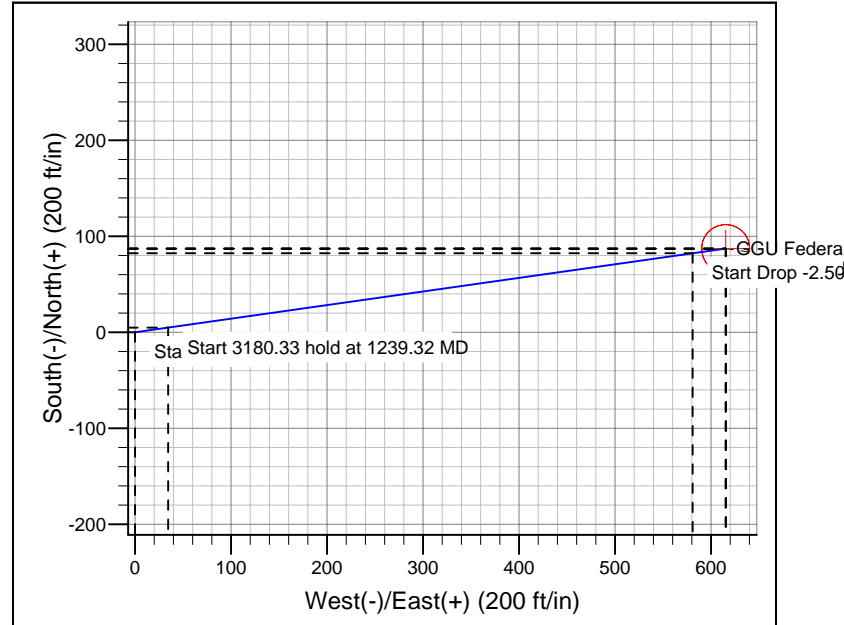
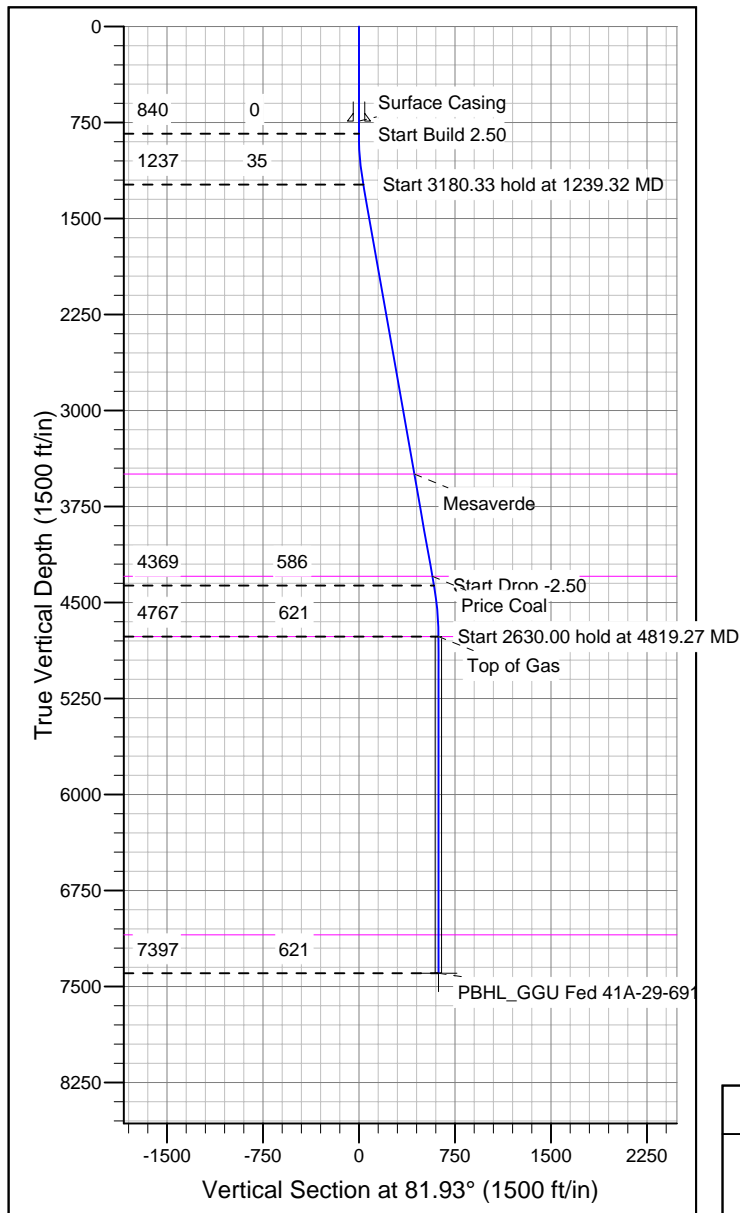
Azimuths to Grid North  
 True North: 1.31°  
 Magnetic North: 11.64°  
 Magnetic Field  
 Strength: 52532.1snT  
 Dip Angle: 65.87°  
 Date: 12/31/2009  
 Model: IGRF200510

## 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	39.70	0.00	0.00	839.70	0.00	0.00	0.00	0.00	0.00	
3	39.32	9.99	81.93	1237.30	4.88	34.41	2.50	81.93	34.75	
4	19.65	9.99	81.93	4369.40	82.31	580.68	0.00	0.00	586.49	
5	19.27	0.00	0.00	4767.00	87.19	615.09	2.50	180.00	621.24	
6	49.27	0.00	0.00	7397.00	87.19	615.09	0.00	0.00	621.24	PBHL_GGU Fed 41A-29-691

## WELLBORE TARGET DETAILS

Name TVD +N/-S +E/-W Shape  
 PBHL\_GGU Fed 41A-29-691 7397.00 615.09 Circle (Radius: 25.00)



## CASING DETAILS

TVD MD Name Size  
 739.70 39.70 Surface Casing 9-5/8

## FORMATION TOP DETAILS

TVD Pat MD Path Formation  
 3497.00 3533.81 Mesaverde  
 4297.00 4346.13 Price Coal  
 4767.00 4819.27 Top of Gas  
 7097.00 7149.27 Rollins

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well GGU Federal #41A-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