

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**MDP #11**

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

**GGU Federal #41B-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 #41B-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 #41B-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Federal #41B-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 #41B-29-691		
<b>Well Position</b>	<b>+N/-S</b>	-3.63 ft	<b>Northing:</b>
	<b>+E/-W</b>	-18.90 ft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>
			ft
			<b>Latitude:</b>
			39° 30' 9.850 N
			<b>Longitude:</b>
			107° 34' 23.2900 W
			<b>Ground Level:</b>
			0.00 ft

<b>Wellbore</b>	GGU Federal #41B-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	56.71

<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	
836.40	0.00	0.00	836.40	0.00	0.00	0.00	0.00	0.00	0.00	
1,344.16	12.69	56.71	1,340.01	30.75	46.82	2.50	2.50	0.00	56.71	
4,296.70	12.69	56.71	4,220.39	386.89	589.13	0.00	0.00	0.00	0.00	
4,804.45	0.00	0.00	4,724.00	417.64	635.95	2.50	-2.50	0.00	180.00	
7,444.45	0.00	0.00	7,364.00	417.64	635.95	0.00	0.00	0.00	0.00	PBHL_GGU Feder

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well GGU Federal #41B-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 #41B-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Federal #41B-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
736.40	0.00	0.00	736.40	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
836.40	0.00	0.00	836.40	0.00	0.00	0.00	0.00	0.00	0.00
900.00	1.59	56.71	899.99	0.48	0.74	0.88	2.50	2.50	0.00
1,000.00	4.09	56.71	999.86	3.20	4.88	5.84	2.50	2.50	0.00
1,100.00	6.59	56.71	1,099.42	8.31	12.66	15.14	2.50	2.50	0.00
1,200.00	9.09	56.71	1,198.48	15.80	24.06	28.78	2.50	2.50	0.00
1,300.00	11.59	56.71	1,296.84	25.65	39.06	46.73	2.50	2.50	0.00
1,344.16	12.69	56.71	1,340.01	30.75	46.82	56.02	2.50	2.50	0.00
1,400.00	12.69	56.71	1,394.49	37.49	57.08	68.29	0.00	0.00	0.00
1,500.00	12.69	56.71	1,492.05	49.55	75.45	90.26	0.00	0.00	0.00
1,600.00	12.69	56.71	1,589.60	61.61	93.81	112.24	0.00	0.00	0.00
1,700.00	12.69	56.71	1,687.16	73.67	112.18	134.21	0.00	0.00	0.00
1,800.00	12.69	56.71	1,784.71	85.73	130.55	156.19	0.00	0.00	0.00
1,900.00	12.69	56.71	1,882.27	97.80	148.92	178.16	0.00	0.00	0.00
2,000.00	12.69	56.71	1,979.83	109.86	167.29	200.13	0.00	0.00	0.00
2,100.00	12.69	56.71	2,077.38	121.92	185.65	222.11	0.00	0.00	0.00
2,200.00	12.69	56.71	2,174.94	133.98	204.02	244.08	0.00	0.00	0.00
2,300.00	12.69	56.71	2,272.49	146.05	222.39	266.06	0.00	0.00	0.00
2,400.00	12.69	56.71	2,370.05	158.11	240.76	288.03	0.00	0.00	0.00
2,500.00	12.69	56.71	2,467.61	170.17	259.12	310.00	0.00	0.00	0.00
2,600.00	12.69	56.71	2,565.16	182.23	277.49	331.98	0.00	0.00	0.00
2,700.00	12.69	56.71	2,662.72	194.30	295.86	353.95	0.00	0.00	0.00
2,800.00	12.69	56.71	2,760.27	206.36	314.23	375.93	0.00	0.00	0.00
2,900.00	12.69	56.71	2,857.83	218.42	332.59	397.90	0.00	0.00	0.00
3,000.00	12.69	56.71	2,955.38	230.48	350.96	419.88	0.00	0.00	0.00
3,100.00	12.69	56.71	3,052.94	242.55	369.33	441.85	0.00	0.00	0.00
3,200.00	12.69	56.71	3,150.50	254.61	387.70	463.82	0.00	0.00	0.00
3,300.00	12.69	56.71	3,248.05	266.67	406.06	485.80	0.00	0.00	0.00
3,400.00	12.69	56.71	3,345.61	278.73	424.43	507.77	0.00	0.00	0.00
3,500.00	12.69	56.71	3,443.16	290.79	442.80	529.75	0.00	0.00	0.00
3,536.73	12.69	56.71	3,479.00	295.23	449.55	537.82	0.00	0.00	0.00
Mesaverde									
3,600.00	12.69	56.71	3,540.72	302.86	461.17	551.72	0.00	0.00	0.00
3,700.00	12.69	56.71	3,638.27	314.92	479.53	573.70	0.00	0.00	0.00
3,800.00	12.69	56.71	3,735.83	326.98	497.90	595.67	0.00	0.00	0.00
3,900.00	12.69	56.71	3,833.39	339.04	516.27	617.64	0.00	0.00	0.00
4,000.00	12.69	56.71	3,930.94	351.11	534.64	639.62	0.00	0.00	0.00
4,100.00	12.69	56.71	4,028.50	363.17	553.00	661.59	0.00	0.00	0.00
4,200.00	12.69	56.71	4,126.05	375.23	571.37	683.57	0.00	0.00	0.00
4,296.70	12.69	56.71	4,220.39	386.89	589.13	704.81	0.00	0.00	0.00
4,300.00	12.61	56.71	4,223.61	387.29	589.74	705.54	2.50	-2.50	0.00
4,351.51	11.32	56.71	4,274.00	393.15	598.66	716.22	2.50	-2.50	0.00
Price Coal									

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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 Federal #41B-29-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	GGU Federal #41B-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)
4,400.00	10.11	56.71	4,321.64	398.10	606.20	725.24	2.50	-2.50	0.00
4,500.00	7.61	56.71	4,420.44	406.56	619.08	740.64	2.50	-2.50	0.00
4,600.00	5.11	56.71	4,519.82	412.64	628.34	751.72	2.50	-2.50	0.00
4,700.00	2.61	56.71	4,619.58	416.34	633.97	758.45	2.50	-2.50	0.00
4,800.00	0.11	56.71	4,719.55	417.64	635.95	760.83	2.50	-2.50	0.00
4,804.45	0.00	0.00	4,724.00	417.64	635.95	760.83	2.50	-2.50	0.00
<b>Top of Gas</b>									
4,900.00	0.00	0.00	4,819.55	417.64	635.95	760.83	0.00	0.00	0.00
5,000.00	0.00	0.00	4,919.55	417.64	635.95	760.83	0.00	0.00	0.00
5,100.00	0.00	0.00	5,019.55	417.64	635.95	760.83	0.00	0.00	0.00
5,200.00	0.00	0.00	5,119.55	417.64	635.95	760.83	0.00	0.00	0.00
5,300.00	0.00	0.00	5,219.55	417.64	635.95	760.83	0.00	0.00	0.00
5,400.00	0.00	0.00	5,319.55	417.64	635.95	760.83	0.00	0.00	0.00
5,500.00	0.00	0.00	5,419.55	417.64	635.95	760.83	0.00	0.00	0.00
5,600.00	0.00	0.00	5,519.55	417.64	635.95	760.83	0.00	0.00	0.00
5,700.00	0.00	0.00	5,619.55	417.64	635.95	760.83	0.00	0.00	0.00
5,800.00	0.00	0.00	5,719.55	417.64	635.95	760.83	0.00	0.00	0.00
5,900.00	0.00	0.00	5,819.55	417.64	635.95	760.83	0.00	0.00	0.00
6,000.00	0.00	0.00	5,919.55	417.64	635.95	760.83	0.00	0.00	0.00
6,100.00	0.00	0.00	6,019.55	417.64	635.95	760.83	0.00	0.00	0.00
6,200.00	0.00	0.00	6,119.55	417.64	635.95	760.83	0.00	0.00	0.00
6,300.00	0.00	0.00	6,219.55	417.64	635.95	760.83	0.00	0.00	0.00
6,400.00	0.00	0.00	6,319.55	417.64	635.95	760.83	0.00	0.00	0.00
6,500.00	0.00	0.00	6,419.55	417.64	635.95	760.83	0.00	0.00	0.00
6,600.00	0.00	0.00	6,519.55	417.64	635.95	760.83	0.00	0.00	0.00
6,700.00	0.00	0.00	6,619.55	417.64	635.95	760.83	0.00	0.00	0.00
6,800.00	0.00	0.00	6,719.55	417.64	635.95	760.83	0.00	0.00	0.00
6,900.00	0.00	0.00	6,819.55	417.64	635.95	760.83	0.00	0.00	0.00
7,000.00	0.00	0.00	6,919.55	417.64	635.95	760.83	0.00	0.00	0.00
7,100.00	0.00	0.00	7,019.55	417.64	635.95	760.83	0.00	0.00	0.00
7,144.45	0.00	0.00	7,064.00	417.64	635.95	760.83	0.00	0.00	0.00
<b>Rollins</b>									
7,200.00	0.00	0.00	7,119.55	417.64	635.95	760.83	0.00	0.00	0.00
7,300.00	0.00	0.00	7,219.55	417.64	635.95	760.83	0.00	0.00	0.00
7,400.00	0.00	0.00	7,319.55	417.64	635.95	760.83	0.00	0.00	0.00
7,444.45	0.00	0.00	7,364.00	417.64	635.95	760.83	0.00	0.00	0.00

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
736.40	736.40	Surface Casing	9-5/8	12-1/4

# BBC

## Planning Report

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

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,536.73	3,479.00	Mesaverde		0.00		
4,351.51	4,274.00	Price Coal		0.00		
4,804.45	4,724.00	Top of Gas		0.00		
7,144.45	7,064.00	Rollins		0.00		

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

Ground Level: 0.00  
+N/-S+E/-W    Northing    Easting    Latitude    Longitude    Slot  
0.00    0.00 1614674.847 2415066.739 30° 9' 57" N 104° 23.2900 W



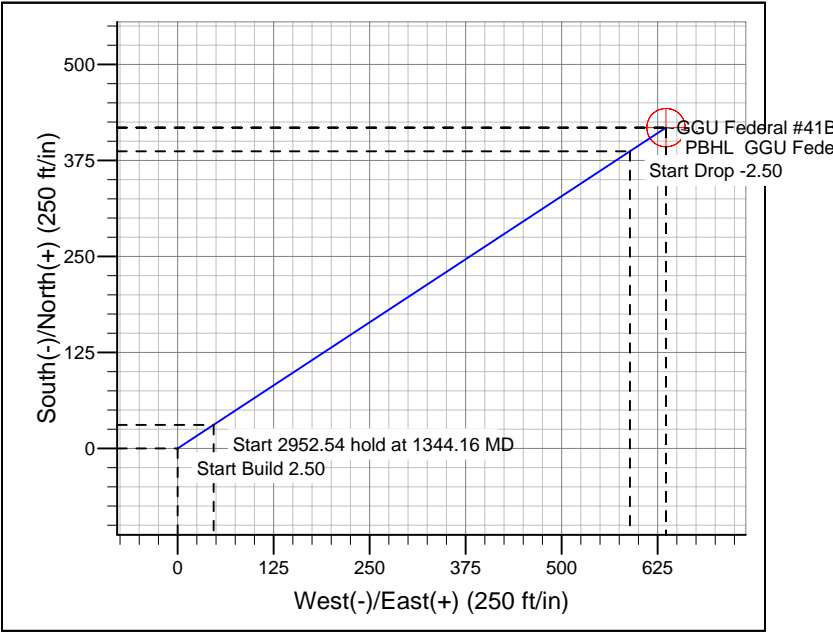
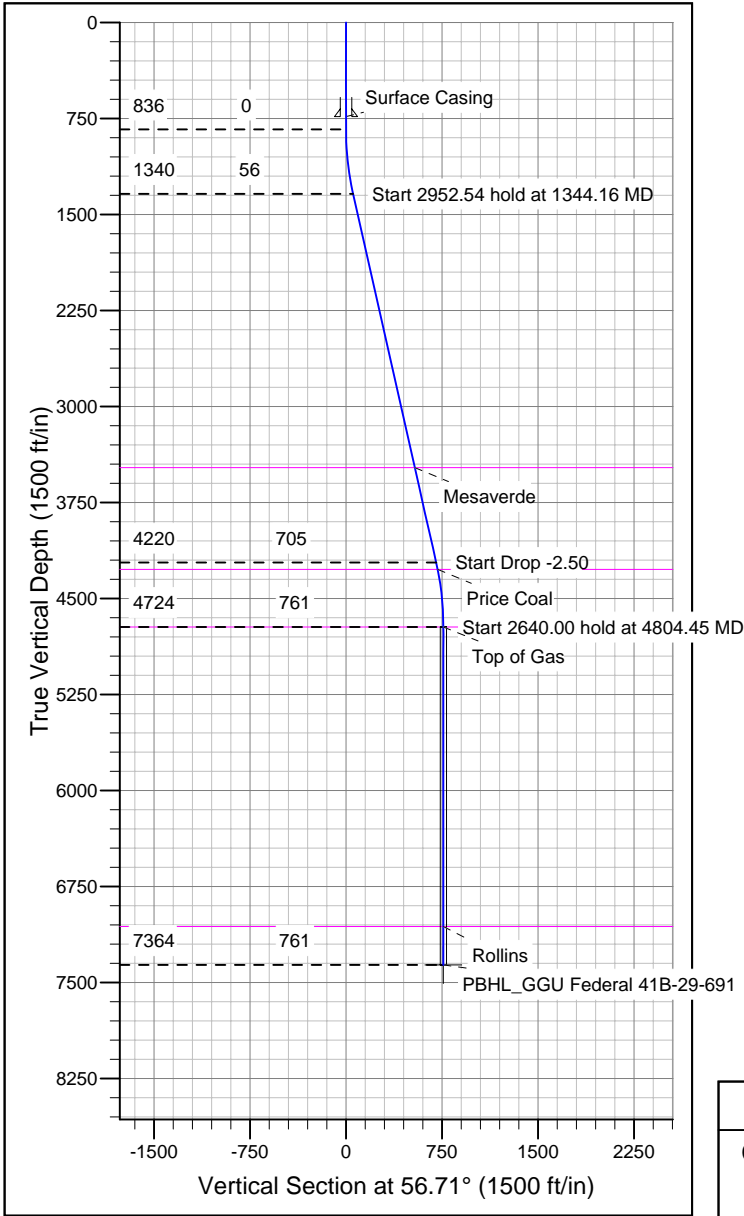
Azimuths to Grid North  
True North: 1.31°  
Magnetic North: 11.64°  
  
Magnetic Field  
Strength: 52532.0snT  
Dip Angle: 65.87°  
Date: 12/31/2009  
Model: IGRF200510

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	36.40	0.00	0.00	836.40	0.00	0.00	0.00	0.00	0.00	
3	1344.16	12.69	56.71	11340.01	30.75	46.82	2.50	56.71	56.02	
4	296.70	12.69	56.71	4220.39	386.89	589.13	0.00	0.00	704.81	
5	4804.45	0.00	0.00	4724.00	417.64	635.95	2.50	180.00	760.83	
6	144.45	0.00	0.00	7364.00	417.64	635.95	0.00	0.00	760.83	PBHL_GGU Federal 41B-29-691

WELLBORE TARGET DETAILS

Name    TVD    +N/-S    +E/-W    Shape  
PBHL\_GGU Federal 41B-29-691    736.40    417.64    635.95    Circle (Radius: 25.00)



CASING DETAILS

TVD    MD    Name    Size  
736.40    736.40    Surface Casing    9-5/8

FORMATION TOP DETAILS

TVDPat	MDPath	Formation
3479.00	3536.73	Mesaverde
4274.00	4351.51	Price Coal
4724.00	4804.45	Top of Gas
7064.00	7144.45	Rollins

REFERENCE INFORMATION

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