

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**Werner Pad(s) SWSE-23-692**

**Werner 34B-23-692**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**14 December, 2009**

# BBC Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Werner 34B-23-692
<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>	Werner Pad(s) SWSE-23-692	<b>North Reference:</b>	True
<b>Well:</b>	Werner 34B-23-692	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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		

Site		Werner Pad(s) SWSE-23-692			
Site Position:		Northing:	1,616,896.898 ft	Latitude:	39° 30' 28.134 N
From:	Lat/Long	Easting:	2,399,006.620 ft	Longitude:	107° 37' 48.7956 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	-1.34 °

Well	Werner 34B-23-692					
Well Position	+N/-S	-64.12 ft	Northing:	1,616,833.019 ft	Latitude:	39° 30' 27.500 N
	+E/-W	-9.31 ft	Easting:	2,398,995.808 ft	Longitude:	107° 37' 48.9144 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 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>
	BGGM2007	12/14/2009	10.44	65.84	52,483

<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	233.19

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,173.67	8.09	233.19	1,172.59	-13.67	-18.27	2.50	2.50	0.00	233.19	
4,792.45	8.09	233.19	4,755.35	-318.86	-426.09	0.00	0.00	0.00	0.00	
5,331.89	0.00	0.00	5,293.00	-341.65	-456.53	1.50	-1.50	0.00	180.00	
8,331.89	0.00	0.00	8,293.00	-341.65	-456.53	0.00	0.00	0.00	0.00	Werner 34B-23-692

# BBC Planning Report

Database: Compass  
Company: BILL BARRETT CORP  
Project: GARFIELD COUNTY, COLORADO NAD 1983  
Site: Werner Pad(s) SWSE-23-692  
Well: Werner 34B-23-692  
Wellbore: Wellbore #1  
Design: Design #1

Local Co-ordinate Reference: Well Werner 34B-23-692  
TVD Reference: WELL @ 0.00ft (Original Well Elev)  
MD Reference: WELL @ 0.00ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

## 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
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>									
900.00	1.25	233.19	900.00	-0.33	-0.44	0.55	2.50	2.50	0.00
1,000.00	3.75	233.19	999.89	-2.94	-3.93	4.91	2.50	2.50	0.00
1,100.00	6.25	233.19	1,099.50	-8.16	-10.91	13.62	2.50	2.50	0.00
1,173.67	8.09	233.19	1,172.59	-13.67	-18.27	22.82	2.50	2.50	0.00
1,200.00	8.09	233.19	1,198.66	-15.89	-21.24	26.52	0.00	0.00	0.00
1,300.00	8.09	233.19	1,297.67	-24.33	-32.51	40.60	0.00	0.00	0.00
1,400.00	8.09	233.19	1,396.67	-32.76	-43.77	54.68	0.00	0.00	0.00
1,500.00	8.09	233.19	1,495.68	-41.19	-55.04	68.75	0.00	0.00	0.00
1,600.00	8.09	233.19	1,594.68	-49.63	-66.31	82.83	0.00	0.00	0.00
1,700.00	8.09	233.19	1,693.69	-58.06	-77.58	96.90	0.00	0.00	0.00
1,800.00	8.09	233.19	1,792.69	-66.49	-88.85	110.98	0.00	0.00	0.00
1,900.00	8.09	233.19	1,891.69	-74.93	-100.12	125.05	0.00	0.00	0.00
2,000.00	8.09	233.19	1,990.70	-83.36	-111.39	139.13	0.00	0.00	0.00
2,100.00	8.09	233.19	2,089.70	-91.79	-122.66	153.20	0.00	0.00	0.00
2,200.00	8.09	233.19	2,188.71	-100.23	-133.93	167.28	0.00	0.00	0.00
2,300.00	8.09	233.19	2,287.71	-108.66	-145.20	181.36	0.00	0.00	0.00
2,400.00	8.09	233.19	2,386.72	-117.09	-156.47	195.43	0.00	0.00	0.00
2,500.00	8.09	233.19	2,485.72	-125.53	-167.74	209.51	0.00	0.00	0.00
2,600.00	8.09	233.19	2,584.72	-133.96	-179.01	223.58	0.00	0.00	0.00
2,700.00	8.09	233.19	2,683.73	-142.39	-190.28	237.66	0.00	0.00	0.00
2,800.00	8.09	233.19	2,782.73	-150.83	-201.55	251.73	0.00	0.00	0.00
2,900.00	8.09	233.19	2,881.74	-159.26	-212.82	265.81	0.00	0.00	0.00
3,000.00	8.09	233.19	2,980.74	-167.69	-224.09	279.89	0.00	0.00	0.00
3,100.00	8.09	233.19	3,079.75	-176.13	-235.36	293.96	0.00	0.00	0.00
3,200.00	8.09	233.19	3,178.75	-184.56	-246.62	308.04	0.00	0.00	0.00
3,300.00	8.09	233.19	3,277.76	-193.00	-257.89	322.11	0.00	0.00	0.00
3,400.00	8.09	233.19	3,376.76	-201.43	-269.16	336.19	0.00	0.00	0.00
3,500.00	8.09	233.19	3,475.76	-209.86	-280.43	350.26	0.00	0.00	0.00
3,600.00	8.09	233.19	3,574.77	-218.30	-291.70	364.34	0.00	0.00	0.00
3,679.02	8.09	233.19	3,653.00	-224.96	-300.61	375.46	0.00	0.00	0.00
<b>Mesaverde</b>									
3,700.00	8.09	233.19	3,673.77	-226.73	-302.97	378.42	0.00	0.00	0.00
3,800.00	8.09	233.19	3,772.78	-235.16	-314.24	392.49	0.00	0.00	0.00
3,900.00	8.09	233.19	3,871.78	-243.60	-325.51	406.57	0.00	0.00	0.00
4,000.00	8.09	233.19	3,970.79	-252.03	-336.78	420.64	0.00	0.00	0.00
4,100.00	8.09	233.19	4,069.79	-260.46	-348.05	434.72	0.00	0.00	0.00
4,200.00	8.09	233.19	4,168.80	-268.90	-359.32	448.79	0.00	0.00	0.00
4,300.00	8.09	233.19	4,267.80	-277.33	-370.59	462.87	0.00	0.00	0.00
4,400.00	8.09	233.19	4,366.80	-285.76	-381.86	476.94	0.00	0.00	0.00
4,500.00	8.09	233.19	4,465.81	-294.20	-393.13	491.02	0.00	0.00	0.00
4,567.87	8.09	233.19	4,533.00	-299.92	-400.78	500.57	0.00	0.00	0.00
<b>Price Coal</b>									

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Well: Werner 34B-23-692  
Wellbore: Wellbore #1  
Design: Design #1

Local Co-ordinate Reference: Well Werner 34B-23-692  
TVD Reference: WELL @ 0.00ft (Original Well Elev)  
MD Reference: WELL @ 0.00ft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

## 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)
4,600.00	8.09	233.19	4,564.81	-302.63	-404.40	505.10	0.00	0.00	0.00
4,700.00	8.09	233.19	4,663.82	-311.06	-415.67	519.17	0.00	0.00	0.00
4,792.45	8.09	233.19	4,755.35	-318.86	-426.09	532.18	0.00	0.00	0.00
4,800.00	7.98	233.19	4,762.82	-319.49	-426.93	533.24	1.50	-1.50	0.00
4,900.00	6.48	233.19	4,862.03	-327.03	-437.00	545.82	1.50	-1.50	0.00
5,000.00	4.98	233.19	4,961.52	-333.01	-444.99	555.80	1.50	-1.50	0.00
5,100.00	3.48	233.19	5,061.25	-337.43	-450.90	563.18	1.50	-1.50	0.00
5,200.00	1.98	233.19	5,161.13	-340.28	-454.71	567.94	1.50	-1.50	0.00
5,300.00	0.48	233.19	5,261.11	-341.57	-456.43	570.08	1.50	-1.50	0.00
5,331.89	0.00	0.00	5,293.00	-341.65	-456.53	570.21	1.50	-1.50	0.00
5,400.00	0.00	0.00	5,361.11	-341.65	-456.53	570.21	0.00	0.00	0.00
5,406.89	0.00	0.00	5,368.00	-341.65	-456.53	570.21	0.00	0.00	0.00
<b>Top Gas</b>									
5,500.00	0.00	0.00	5,461.11	-341.65	-456.53	570.21	0.00	0.00	0.00
5,600.00	0.00	0.00	5,561.11	-341.65	-456.53	570.21	0.00	0.00	0.00
5,700.00	0.00	0.00	5,661.11	-341.65	-456.53	570.21	0.00	0.00	0.00
5,800.00	0.00	0.00	5,761.11	-341.65	-456.53	570.21	0.00	0.00	0.00
5,900.00	0.00	0.00	5,861.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,000.00	0.00	0.00	5,961.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,100.00	0.00	0.00	6,061.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,200.00	0.00	0.00	6,161.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,300.00	0.00	0.00	6,261.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,400.00	0.00	0.00	6,361.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,500.00	0.00	0.00	6,461.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,600.00	0.00	0.00	6,561.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,700.00	0.00	0.00	6,661.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,800.00	0.00	0.00	6,761.11	-341.65	-456.53	570.21	0.00	0.00	0.00
6,900.00	0.00	0.00	6,861.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,000.00	0.00	0.00	6,961.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,100.00	0.00	0.00	7,061.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,200.00	0.00	0.00	7,161.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,300.00	0.00	0.00	7,261.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,331.89	0.00	0.00	7,293.00	-341.65	-456.53	570.21	0.00	0.00	0.00
<b>Rollins</b>									
7,400.00	0.00	0.00	7,361.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,500.00	0.00	0.00	7,461.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,600.00	0.00	0.00	7,561.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,700.00	0.00	0.00	7,661.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,800.00	0.00	0.00	7,761.11	-341.65	-456.53	570.21	0.00	0.00	0.00
7,900.00	0.00	0.00	7,861.11	-341.65	-456.53	570.21	0.00	0.00	0.00
8,000.00	0.00	0.00	7,961.11	-341.65	-456.53	570.21	0.00	0.00	0.00
8,031.89	0.00	0.00	7,993.00	-341.65	-456.53	570.21	0.00	0.00	0.00
<b>CRCN</b>									
8,100.00	0.00	0.00	8,061.11	-341.65	-456.53	570.21	0.00	0.00	0.00
8,200.00	0.00	0.00	8,161.11	-341.65	-456.53	570.21	0.00	0.00	0.00
8,300.00	0.00	0.00	8,261.11	-341.65	-456.53	570.21	0.00	0.00	0.00
8,331.89	0.00	0.00	8,293.00	-341.65	-456.53	570.21	0.00	0.00	0.00

# BBC

## Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Werner 34B-23-692
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	GARFIELD COUNTY, COLORADO NAD 1983	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Werner Pad(s) SWSE-23-692	North Reference:	True
Well:	Werner 34B-23-692	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
850.00	850.00	9 5/8"	9-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,679.02	3,653.00	Mesaverde		0.00		
4,567.87	4,533.00	Price Coal		0.00		
5,406.89	5,368.00	Top Gas		0.00		
7,331.89	7,293.00	Rollins		0.00		
8,031.89	7,993.00	CRCN		0.00		

# WELL DETAILS: Werner 34B-23-692

Ground Level: 0.00  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1616833.019 2398995.808 39° 30' 27.5000N 107° 37' 48.9144 W



Azimuths to True North  
 Magnetic North: 10.44°

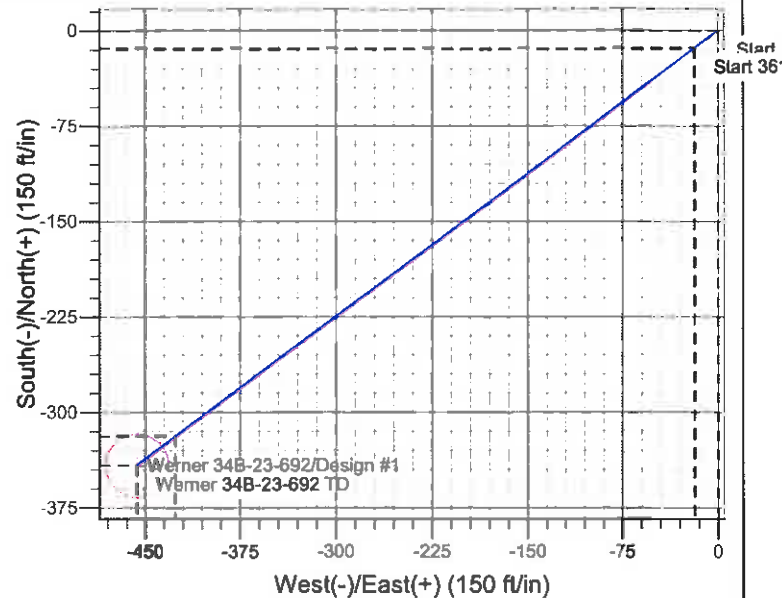
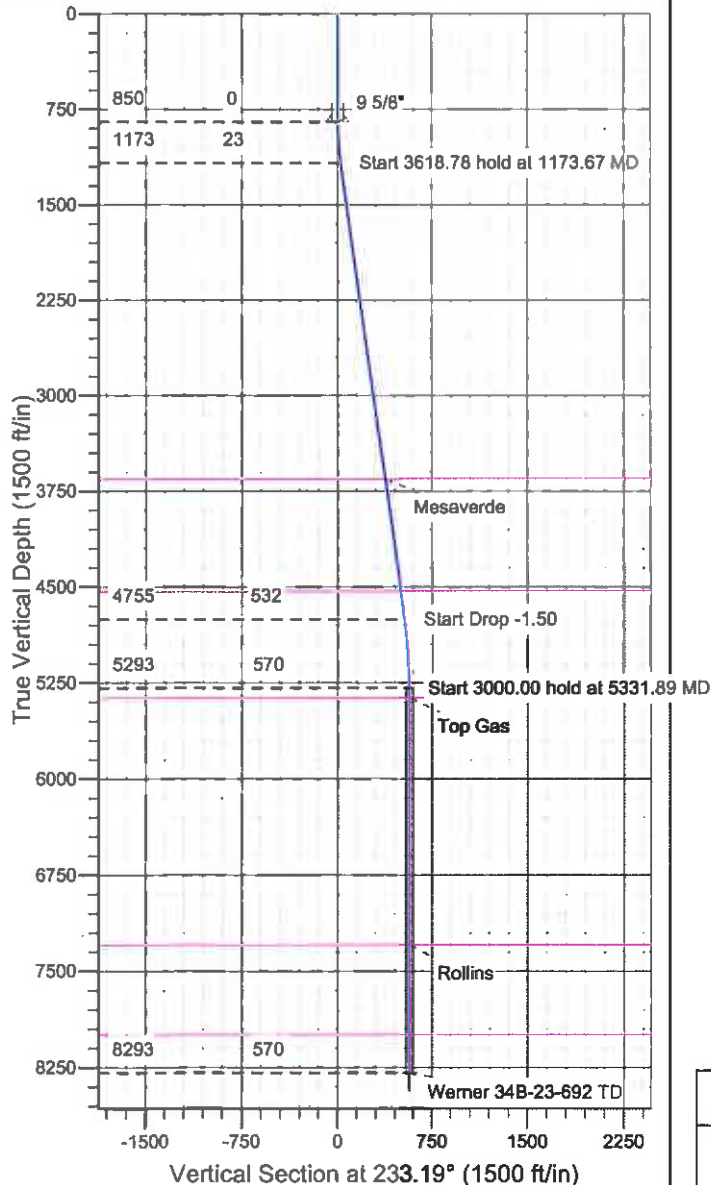
Magnetic Field  
 Strength: 52482.6snT  
 Dip Angle: 65.84°  
 Date: 12/14/2009  
 Model: BGGM2007

## 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	850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	
3	173.67	8.09	233.19	1172.59	-13.67	-18.27	2.50	233.19	22.82	
4	792.45	8.09	233.19	4755.35	-318.86	-426.09	0.00	0.00	532.18	
5	331.89	0.00	0.00	5293.00	-341.65	-456.53	1.50	180.00	570.21	
6	331.89	0.00	0.00	8293.00	-341.65	-456.53	0.00	0.00	570.21	Werner 34B-23-692 TD

## WELLBORE TARGET DETAILS

Name TVD +N/-S +E/-W Shape  
 Werner 34B-23-692 TD -341.65 -456.53 Circle (Radius: 25.00)



## CASING DETAILS

TVD MD Name Size  
 850.00 850.00 9 5/8" 9-5/8

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3653.00	3679.02	Mesaverde
4533.00	4567.87	Price Coal
5368.00	5406.89	Top Gas
7293.00	7331.89	Rollins
7993.00	8031.89	CRCN

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Werner 34B-23-692, True 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