

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

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

**Werner 44C-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 44C-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 44C-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		

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

<b>Well</b>	Werner 44C-23-692			
<b>Well Position</b>	+N/-S	-64.12 ft	<b>Northing:</b>	1,616,832.783 ft
	+E/-W	0.56 ft	<b>Easting:</b>	2,399,005.681 ft
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b> 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) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	91.45

Plan Sections										
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	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,639.11	12.59	91.45	1,632.38	-2.32	91.77	1.50	1.50	0.00	91.45	
4,752.17	12.59	91.45	4,670.62	-19.50	769.93	0.00	0.00	0.00	0.00	
5,591.28	0.00	0.00	5,503.00	-21.83	861.70	1.50	-1.50	0.00	180.00	
7,591.28	0.00	0.00	7,503.00	-21.83	861.70	0.00	0.00	0.00	0.00	Werner 44C-23-692

# BBC Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Werner 44C-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 44C-23-692	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)	Bulld 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
<b>9 5/8"</b>									
900.00	1.50	91.45	899.99	-0.03	1.31	1.31	1.50	1.50	0.00
1,000.00	3.00	91.45	999.91	-0.13	5.23	5.23	1.50	1.50	0.00
1,100.00	4.50	91.45	1,099.69	-0.30	11.77	11.77	1.50	1.50	0.00
1,200.00	6.00	91.45	1,199.27	-0.53	20.92	20.92	1.50	1.50	0.00
1,300.00	7.50	91.45	1,298.57	-0.83	32.67	32.68	1.50	1.50	0.00
1,400.00	9.00	91.45	1,397.54	-1.19	47.01	47.03	1.50	1.50	0.00
1,500.00	10.50	91.45	1,496.09	-1.62	63.94	63.96	1.50	1.50	0.00
1,600.00	12.00	91.45	1,594.16	-2.11	83.44	83.47	1.50	1.50	0.00
1,639.11	12.59	91.45	1,632.38	-2.32	91.77	91.80	1.50	1.50	0.00
1,700.00	12.59	91.45	1,691.80	-2.66	105.03	105.07	0.00	0.00	0.00
1,800.00	12.59	91.45	1,789.40	-3.21	126.82	126.86	0.00	0.00	0.00
1,900.00	12.59	91.45	1,887.00	-3.76	148.60	148.65	0.00	0.00	0.00
2,000.00	12.59	91.45	1,984.59	-4.32	170.39	170.44	0.00	0.00	0.00
2,100.00	12.59	91.45	2,082.19	-4.87	192.17	192.23	0.00	0.00	0.00
2,200.00	12.59	91.45	2,179.79	-5.42	213.95	214.02	0.00	0.00	0.00
2,300.00	12.59	91.45	2,277.38	-5.97	235.74	235.81	0.00	0.00	0.00
2,400.00	12.59	91.45	2,374.98	-6.52	257.52	257.61	0.00	0.00	0.00
2,500.00	12.59	91.45	2,472.58	-7.07	279.31	279.40	0.00	0.00	0.00
2,600.00	12.59	91.45	2,570.17	-7.63	301.09	301.19	0.00	0.00	0.00
2,700.00	12.59	91.45	2,667.77	-8.18	322.88	322.98	0.00	0.00	0.00
2,800.00	12.59	91.45	2,765.37	-8.73	344.66	344.77	0.00	0.00	0.00
2,900.00	12.59	91.45	2,862.97	-9.28	366.45	366.56	0.00	0.00	0.00
3,000.00	12.59	91.45	2,960.56	-9.83	388.23	388.36	0.00	0.00	0.00
3,100.00	12.59	91.45	3,058.16	-10.39	410.02	410.15	0.00	0.00	0.00
3,200.00	12.59	91.45	3,155.76	-10.94	431.80	431.94	0.00	0.00	0.00
3,300.00	12.59	91.45	3,253.35	-11.49	453.58	453.73	0.00	0.00	0.00
3,400.00	12.59	91.45	3,350.95	-12.04	475.37	475.52	0.00	0.00	0.00
3,500.00	12.59	91.45	3,448.55	-12.59	497.15	497.31	0.00	0.00	0.00
3,600.00	12.59	91.45	3,546.14	-13.14	518.94	519.10	0.00	0.00	0.00
3,700.00	12.59	91.45	3,643.74	-13.70	540.72	540.90	0.00	0.00	0.00
3,750.47	12.59	91.45	3,693.00	-13.98	551.72	551.89	0.00	0.00	0.00
<b>Mesaverde</b>									
3,800.00	12.59	91.45	3,741.34	-14.25	562.51	562.69	0.00	0.00	0.00
3,900.00	12.59	91.45	3,838.93	-14.80	584.29	584.48	0.00	0.00	0.00
4,000.00	12.59	91.45	3,936.53	-15.35	606.08	606.27	0.00	0.00	0.00
4,100.00	12.59	91.45	4,034.13	-15.90	627.86	628.06	0.00	0.00	0.00
4,200.00	12.59	91.45	4,131.72	-16.46	649.65	649.85	0.00	0.00	0.00
4,300.00	12.59	91.45	4,229.32	-17.01	671.43	671.65	0.00	0.00	0.00
4,400.00	12.59	91.45	4,326.92	-17.56	693.21	693.44	0.00	0.00	0.00
4,500.00	12.59	91.45	4,424.51	-18.11	715.00	715.23	0.00	0.00	0.00
4,600.00	12.59	91.45	4,522.11	-18.66	736.78	737.02	0.00	0.00	0.00
4,600.91	12.59	91.45	4,523.00	-18.67	736.98	737.22	0.00	0.00	0.00
<b>Price Coal</b>									

**BBC**  
Planning Report

**Database:** Compass  
**Company:** BILL BARRETT CORP  
**Project:** GARFIELD COUNTY, COLORADO NAD 1983  
**Site:** Werner Pad(s) SWSE-23-692  
**Well:** Werner 44C-23-692  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well Werner 44C-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)
4,700.00	12.59	91.45	4,619.71	-19.21	758.57	758.81	0.00	0.00	0.00
4,752.17	12.59	91.45	4,670.62	-19.50	769.93	770.18	0.00	0.00	0.00
4,800.00	11.87	91.45	4,717.37	-19.76	780.06	780.31	1.50	-1.50	0.00
4,900.00	10.37	91.45	4,815.49	-20.25	799.34	799.59	1.50	-1.50	0.00
5,000.00	8.87	91.45	4,914.08	-20.67	816.04	816.30	1.50	-1.50	0.00
5,100.00	7.37	91.45	5,013.07	-21.03	830.16	830.43	1.50	-1.50	0.00
5,200.00	5.87	91.45	5,112.40	-21.32	841.68	841.95	1.50	-1.50	0.00
5,300.00	4.37	91.45	5,212.00	-21.55	850.60	850.88	1.50	-1.50	0.00
5,381.17	3.15	91.45	5,293.00	-21.68	855.92	856.20	1.50	-1.50	0.00
<b>Top Gas</b>									
5,400.00	2.87	91.45	5,311.80	-21.71	856.91	857.19	1.50	-1.50	0.00
5,500.00	1.37	91.45	5,411.73	-21.80	860.61	860.89	1.50	-1.50	0.00
5,591.28	0.00	0.00	5,503.00	-21.83	861.70	861.98	1.50	-1.50	0.00
5,600.00	0.00	0.00	5,511.72	-21.83	861.70	861.98	0.00	0.00	0.00
5,700.00	0.00	0.00	5,611.72	-21.83	861.70	861.98	0.00	0.00	0.00
5,800.00	0.00	0.00	5,711.72	-21.83	861.70	861.98	0.00	0.00	0.00
5,900.00	0.00	0.00	5,811.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,000.00	0.00	0.00	5,911.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,100.00	0.00	0.00	6,011.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,200.00	0.00	0.00	6,111.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,300.00	0.00	0.00	6,211.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,400.00	0.00	0.00	6,311.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,500.00	0.00	0.00	6,411.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,600.00	0.00	0.00	6,511.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,700.00	0.00	0.00	6,611.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,800.00	0.00	0.00	6,711.72	-21.83	861.70	861.98	0.00	0.00	0.00
6,900.00	0.00	0.00	6,811.72	-21.83	861.70	861.98	0.00	0.00	0.00
7,000.00	0.00	0.00	6,911.72	-21.83	861.70	861.98	0.00	0.00	0.00
7,100.00	0.00	0.00	7,011.72	-21.83	861.70	861.98	0.00	0.00	0.00
7,200.00	0.00	0.00	7,111.72	-21.83	861.70	861.98	0.00	0.00	0.00
7,291.28	0.00	0.00	7,203.00	-21.83	861.70	861.98	0.00	0.00	0.00
<b>Rollins</b>									
7,300.00	0.00	0.00	7,211.72	-21.83	861.70	861.98	0.00	0.00	0.00
7,400.00	0.00	0.00	7,311.72	-21.83	861.70	861.98	0.00	0.00	0.00
7,500.00	0.00	0.00	7,411.72	-21.83	861.70	861.98	0.00	0.00	0.00
7,591.28	0.00	0.00	7,503.00	-21.83	861.70	861.98	0.00	0.00	0.00

**Casing Points**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
800.00	800.00	9 5/8"	9-5/8	12-1/4

# BBC

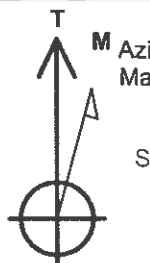
## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Werner 44C-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 44C-23-692	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,750.47	3,693.00	Mesaverde		0.00		
4,600.91	4,523.00	Price Coal		0.00		
5,381.17	5,293.00	Top Gas		0.00		
7,291.28	7,203.00	Rollins		0.00		

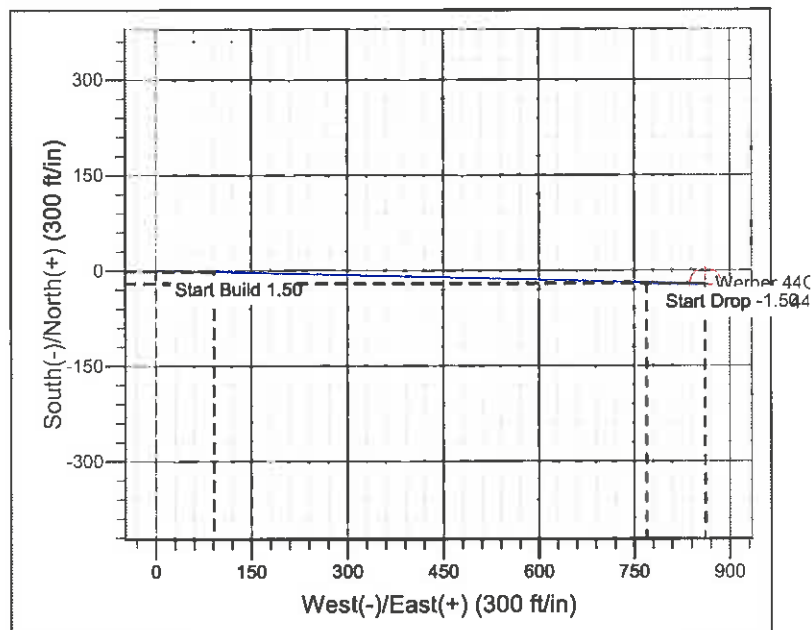
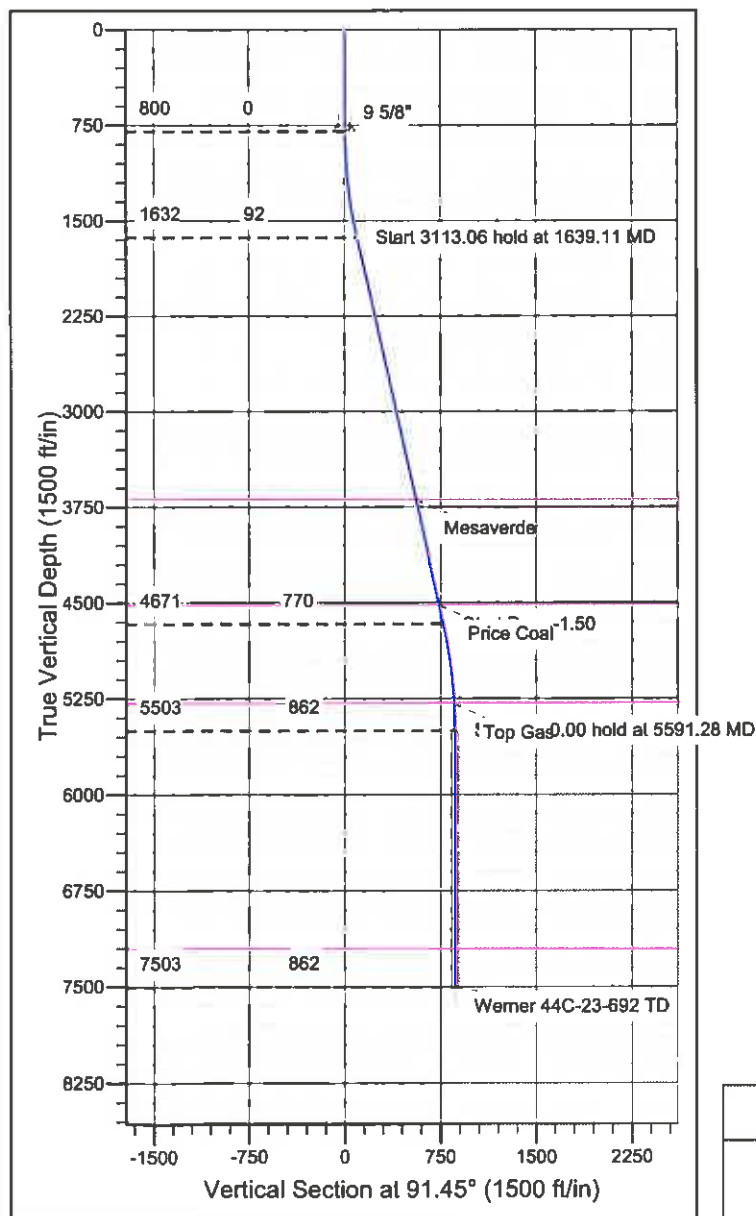
## WELL DETAILS: Werner 44C-23-692

+N/-S	+E/-W	Northing	Easting	Ground Level: 0.00	Latitude	Longitude	Slot
0.00	0.00	1616832.783	2399005.68	89° 30' 27.5000 N	107° 37' 48.7884 W		

	SECTION DETAILS											
	Azimuths to True North Magnetic North: 10.44°											
	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	800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00		
	3	1639.11	12.59	91.45	1632.38	-2.32	91.77	1.50	91.45	91.80		
	4	1752.17	12.59	91.45	4670.62	-19.50	769.93	0.00	0.00	770.18		
	Magnetic Field Strength: 52482.7 nT Dip Angle: 65.84° Date: 12/14/2009 Model: BGGM2007											
	5	5591.28	0.00	0.00	5503.00	-21.83	861.70	1.50	180.00	861.98		
	6	5591.28	0.00	0.00	7503.00	-21.83	861.70	0.00	0.00	861.98	Werner 44C-23-692 TD	

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Werner 44C-23-692 TD	5503.00	-21.83	861.70	Circle (Radius: 25.00)



## CASING DETAILS

TVD	MD	Name	Size
800.00	800.00	9 5/8"	9-5/8

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3693.00	3750.47	Mesaverde
4523.00	4600.91	Price Coal
5293.00	5381.17	Top Gas
7203.00	7291.28	Rollins

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Werner 44C-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