

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**Kaufman Pad #4 NWNW-30-691**

**Kaufman 43D-25-692**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**31 December, 2009**

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Kaufman 43D-25-692
<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>	Kaufman Pad #4 NWNW-30-691	<b>North Reference:</b>	True
<b>Well:</b>	Kaufman 43D-25-692	<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						Kaufman Pad #4 NWNW-30-691											
Site Position:						Northing:			1,614,920.309ft			Latitude:			39° 30' 10.271 N		
From:			Lat/Long			Easting:			2,406,245.151 ft			Longitude:			107° 36' 15.8796 W		
Position Uncertainty:			0.00 ft			Slot Radius:			"			Grid Convergence:			-1.33 °		

Well	Kaufman 43D-25-692					
Well Position	+N/-S	0.00 ft	Northing:	1,614,920.304 ft	Latitude:	39° 30' 10.271 N
	+E/-W	0.00 ft	Easting:	2,406,245.151 ft	Longitude:	107° 36' 15.8796 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	12/29/2009	10.42	65.84	52,479

<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	211.31	

<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	
780.00	0.00	0.00	780.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,220.36	36.01	211.31	2,127.39	-374.14	-227.56	2.50	2.50	0.00	211.31	
3,870.63	36.01	211.31	3,462.34	-1,203.07	-731.73	0.00	0.00	0.00	0.00	
6,271.23	0.00	0.00	5,708.00	-1,826.64	-1,111.00	1.50	-1.50	0.00	180.00	
7,771.23	0.00	0.00	7,208.00	-1,826.64	-1,111.00	0.00	0.00	0.00	0.00	Kaufman 43D-25-692

# BBC

## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Kaufman 43D-25-692
<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>	Kaufman Pad #4 NWNW-30-691	<b>North Reference:</b>	True
<b>Well:</b>	Kaufman 43D-25-692	<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)	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
780.00	0.00	0.00	780.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
800.00	0.50	211.31	800.00	-0.07	-0.05	0.09	2.50	2.50	0.00
900.00	3.00	211.31	899.95	-2.68	-1.63	3.14	2.50	2.50	0.00
1,000.00	5.50	211.31	999.66	-9.01	-5.48	10.55	2.50	2.50	0.00
1,100.00	8.00	211.31	1,098.96	-19.06	-11.59	22.30	2.50	2.50	0.00
1,200.00	10.50	211.31	1,197.65	-32.79	-19.94	38.38	2.50	2.50	0.00
1,300.00	13.00	211.31	1,295.55	-50.19	-30.52	58.74	2.50	2.50	0.00
1,400.00	15.50	211.31	1,392.47	-71.21	-43.31	83.35	2.50	2.50	0.00
1,500.00	18.00	211.31	1,488.21	-95.84	-58.29	112.17	2.50	2.50	0.00
1,600.00	20.50	211.31	1,582.62	-124.00	-75.42	145.14	2.50	2.50	0.00
1,700.00	23.00	211.31	1,675.49	-155.66	-94.67	182.19	2.50	2.50	0.00
1,800.00	25.50	211.31	1,766.66	-190.75	-116.02	223.26	2.50	2.50	0.00
1,900.00	28.00	211.31	1,855.95	-229.20	-139.40	268.26	2.50	2.50	0.00
2,000.00	30.50	211.31	1,943.19	-270.94	-164.79	317.12	2.50	2.50	0.00
2,100.00	33.00	211.31	2,028.22	-315.90	-192.13	369.74	2.50	2.50	0.00
2,200.00	35.50	211.31	2,110.87	-363.98	-221.38	426.02	2.50	2.50	0.00
2,220.36	36.01	211.31	2,127.39	-374.14	-227.56	437.91	2.50	2.50	0.00
2,300.00	36.01	211.31	2,191.82	-414.15	-251.89	484.73	0.00	0.00	0.00
2,400.00	36.01	211.31	2,272.71	-464.38	-282.44	543.52	0.00	0.00	0.00
2,500.00	36.01	211.31	2,353.60	-514.61	-312.99	602.31	0.00	0.00	0.00
2,600.00	36.01	211.31	2,434.50	-564.84	-343.54	661.11	0.00	0.00	0.00
2,700.00	36.01	211.31	2,515.39	-615.07	-374.09	719.90	0.00	0.00	0.00
2,800.00	36.01	211.31	2,596.28	-665.29	-404.64	778.69	0.00	0.00	0.00
2,900.00	36.01	211.31	2,677.17	-715.52	-435.20	837.48	0.00	0.00	0.00
3,000.00	36.01	211.31	2,758.07	-765.75	-465.75	896.27	0.00	0.00	0.00
3,100.00	36.01	211.31	2,838.96	-815.98	-496.30	955.06	0.00	0.00	0.00
3,200.00	36.01	211.31	2,919.85	-866.21	-526.85	1,013.85	0.00	0.00	0.00
3,300.00	36.01	211.31	3,000.75	-916.44	-557.40	1,072.64	0.00	0.00	0.00
3,400.00	36.01	211.31	3,081.64	-966.67	-587.95	1,131.43	0.00	0.00	0.00
3,500.00	36.01	211.31	3,162.53	-1,016.90	-618.50	1,190.22	0.00	0.00	0.00
3,600.00	36.01	211.31	3,243.42	-1,067.13	-649.05	1,249.02	0.00	0.00	0.00
3,692.19	36.01	211.31	3,318.00	-1,113.44	-677.22	1,303.22	0.00	0.00	0.00
Mesaverde									
3,700.00	36.01	211.31	3,324.32	-1,117.36	-679.60	1,307.81	0.00	0.00	0.00
3,800.00	36.01	211.31	3,405.21	-1,167.59	-710.15	1,366.60	0.00	0.00	0.00
3,870.63	36.01	211.31	3,462.34	-1,203.07	-731.73	1,408.12	0.00	0.00	0.00
3,900.00	35.57	211.31	3,486.17	-1,217.74	-740.66	1,425.30	1.50	-1.50	0.00
4,000.00	34.07	211.31	3,568.26	-1,266.53	-770.33	1,482.39	1.50	-1.50	0.00
4,100.00	32.57	211.31	3,651.82	-1,313.46	-798.87	1,537.32	1.50	-1.50	0.00
4,200.00	31.07	211.31	3,736.79	-1,358.50	-826.26	1,590.04	1.50	-1.50	0.00
4,300.00	29.57	211.31	3,823.11	-1,401.63	-852.50	1,640.52	1.50	-1.50	0.00
4,400.00	28.07	211.31	3,910.73	-1,442.81	-877.54	1,688.72	1.50	-1.50	0.00
4,500.00	26.57	211.31	3,999.57	-1,482.02	-901.39	1,734.62	1.50	-1.50	0.00
4,600.00	25.07	211.31	4,089.59	-1,519.23	-924.02	1,778.17	1.50	-1.50	0.00

# BBC

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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>	Kaufman Pad #4 NWNW-30-691	<b>North Reference:</b>	True
<b>Well:</b>	Kaufman 43D-25-692	<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)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,631.31	24.60	211.31	4,118.00	-1,530.46	-930.86	1,791.32	1.50	-1.50	0.00
<b>Price Coal</b>									
4,700.00	23.57	211.31	4,180.71	-1,554.41	-945.42	1,819.35	1.50	-1.50	0.00
4,800.00	22.07	211.31	4,272.88	-1,587.54	-965.57	1,858.13	1.50	-1.50	0.00
4,900.00	20.57	211.31	4,366.04	-1,618.60	-984.47	1,894.48	1.50	-1.50	0.00
4,944.72	19.90	211.31	4,408.00	-1,631.82	-992.50	1,909.95	1.50	-1.50	0.00
<b>Top Gas</b>									
5,000.00	19.07	211.31	4,460.11	-1,647.57	-1,002.08	1,928.38	1.50	-1.50	0.00
5,100.00	17.57	211.31	4,555.04	-1,674.42	-1,018.41	1,959.81	1.50	-1.50	0.00
5,200.00	16.07	211.31	4,650.76	-1,699.14	-1,033.45	1,988.74	1.50	-1.50	0.00
5,300.00	14.57	211.31	4,747.21	-1,721.71	-1,047.18	2,015.16	1.50	-1.50	0.00
5,400.00	13.07	211.31	4,844.31	-1,742.12	-1,059.59	2,039.05	1.50	-1.50	0.00
5,500.00	11.57	211.31	4,942.00	-1,760.35	-1,070.68	2,060.38	1.50	-1.50	0.00
5,600.00	10.07	211.31	5,040.22	-1,776.38	-1,080.43	2,079.15	1.50	-1.50	0.00
5,700.00	8.57	211.31	5,138.90	-1,790.21	-1,088.84	2,095.34	1.50	-1.50	0.00
5,800.00	7.07	211.31	5,237.97	-1,801.84	-1,095.91	2,108.94	1.50	-1.50	0.00
5,900.00	5.57	211.31	5,337.36	-1,811.24	-1,101.63	2,119.95	1.50	-1.50	0.00
6,000.00	4.07	211.31	5,437.00	-1,818.42	-1,105.99	2,128.35	1.50	-1.50	0.00
6,100.00	2.57	211.31	5,536.83	-1,823.36	-1,109.00	2,134.14	1.50	-1.50	0.00
6,200.00	1.07	211.31	5,636.78	-1,826.07	-1,110.65	2,137.31	1.50	-1.50	0.00
6,271.23	0.00	0.00	5,708.00	-1,826.64	-1,111.00	2,137.97	1.50	-1.50	0.00
6,300.00	0.00	0.00	5,736.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
6,400.00	0.00	0.00	5,836.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
6,500.00	0.00	0.00	5,936.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
6,600.00	0.00	0.00	6,036.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
6,700.00	0.00	0.00	6,136.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
6,800.00	0.00	0.00	6,236.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
6,900.00	0.00	0.00	6,336.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,000.00	0.00	0.00	6,436.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,100.00	0.00	0.00	6,536.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,200.00	0.00	0.00	6,636.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,300.00	0.00	0.00	6,736.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,400.00	0.00	0.00	6,836.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,471.23	0.00	0.00	6,908.00	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
<b>Rollins</b>									
7,500.00	0.00	0.00	6,936.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,600.00	0.00	0.00	7,036.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,700.00	0.00	0.00	7,136.77	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00
7,771.23	0.00	0.00	7,208.00	-1,826.64	-1,111.00	2,137.97	0.00	0.00	0.00

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
780.00	780.00	9 5/8"	9-5/8	12-1/4

# BBC

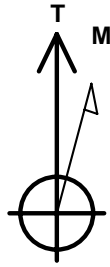
## Planning Report

<b>Database:</b>	Compass	<b>Local Co-ordinate Reference:</b>	Well Kaufman 43D-25-692
<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>	Kaufman Pad #4 NWNW-30-691	<b>North Reference:</b>	True
<b>Well:</b>	Kaufman 43D-25-692	<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 (°)	
3,692.19	3,318.00	Mesaverde		0.00		
4,631.31	4,118.00	Price Coal		0.00		
4,944.72	4,408.00	Top Gas		0.00		
7,471.23	6,908.00	Rollins		0.00		

## WELL DETAILS: Kaufman 43D-25-692

Ground Level: 0.00  
 +N/-S+E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1614920.304 2406245.139 30° 10.27' N 106° 15.87' W



Azimuths to True North  
 Magnetic North: 10.42°

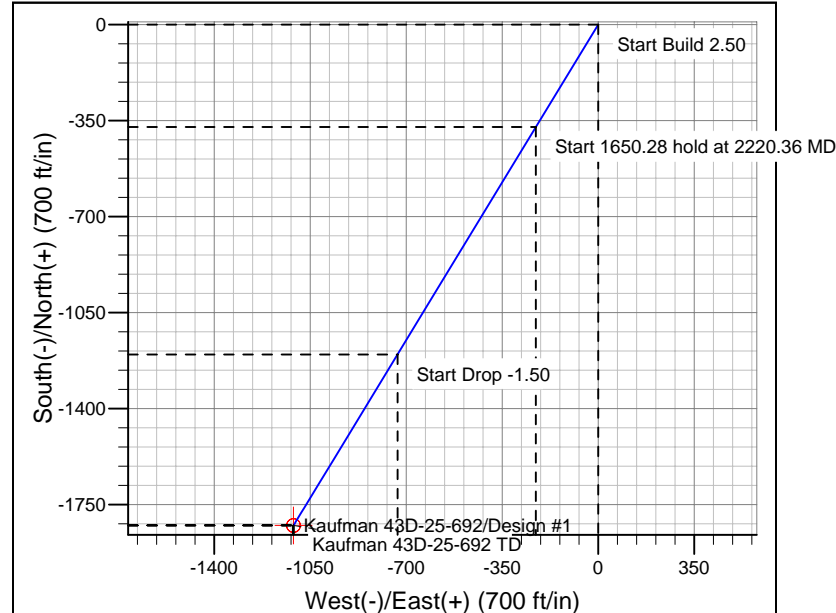
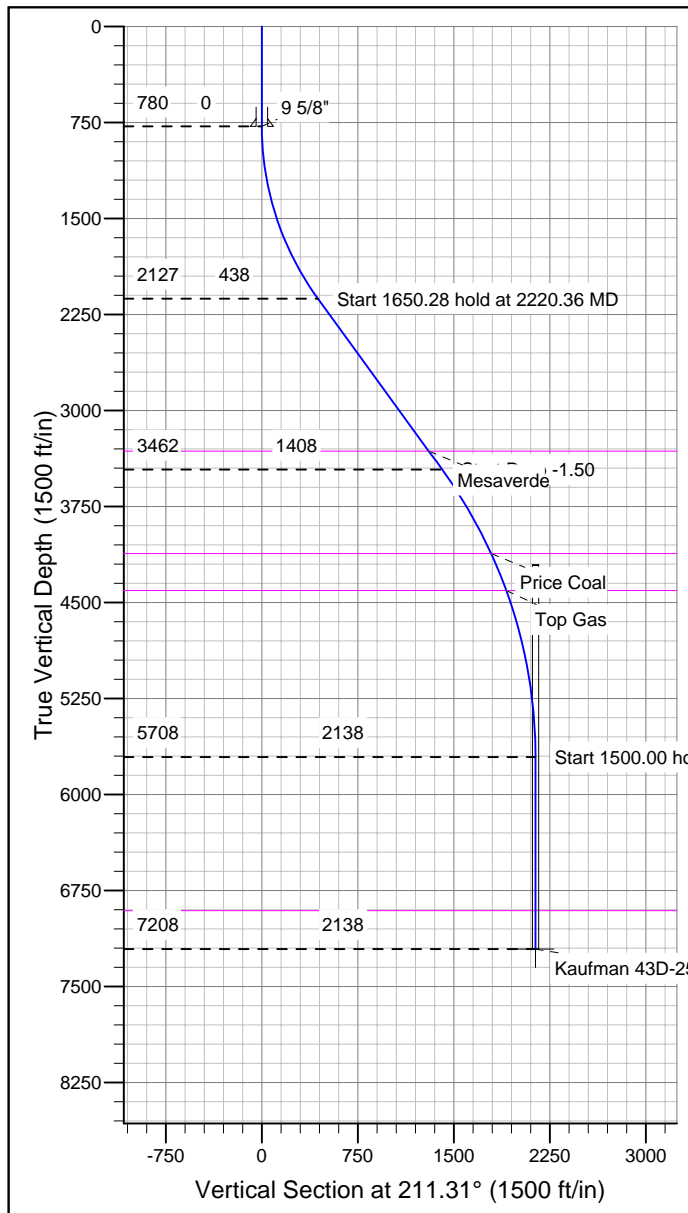
Magnetic Field  
 Strength: 52478.9snT  
 Dip Angle: 65.84°  
 Date: 12/29/2009  
 Model: BGGM2007

## 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	780.00	0.00	0.00	780.00	0.00	0.00	0.00	0.00	0.00	
3	220.36	36.01	211.31	127.39	-374.14	-227.56	2.50	211.31	437.91	
4	3670.63	36.01	211.31	3462.34	1203.07	-731.73	0.00	0.00	1408.12	
5	6271.23	0.00	0.00	5708.00	1826.64	1111.00	1.50	180.00	2137.97	
6	771.23	0.00	0.00	7208.00	1826.64	1111.00	0.00	0.00	2137.97	Kaufman 43D-25-692 TD

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Kaufman 43D-25-692 TD	7208.00	1826.64	-1111.00	Circle (Radius: 25.00)



## CASING DETAILS

TVD	MD	Name	Size
780.00	780.00	9 5/8"	9-5/8

## FORMATION TOP DETAILS

TVD	MD	Formation
3318.00	3692.19	Mesaverde
4118.00	4631.31	Price Coal
4408.00	4944.72	Top Gas
6908.00	7471.23	Rollins

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Kaufman 43D-25-692, 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