

BILL BARRETT CORP

GARFIELD COUNTY, COLORADO NAD 1983

Miller Pad #4

Miller 32B-31-691

Wellbore #1

Plan: Design #1

Standard Planning Report

16 August, 2011

Bill Barrett Corp

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Miller 32B-31-691
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:	Miller Pad #4	North Reference:	True
Well:	Miller 32B-31-691	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	GARFIELD COUNTY, COLORADO NAD 1983		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Miller Pad #4		
Site Position:		Northing:	1,608,716.958 ft
From:	Lat/Long	Easting:	2,409,880.228 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	39° 29' 9.805 N
		Longitude:	107° 35' 27.6936 W
		Grid Convergence:	-1.32 °

Well	Miller 32B-31-691					
Well Position	+N-S	287.01 ft	Northing:	1,609,004.199 ft	Latitude:	39° 29' 12.642 N
	+E/-W	-13.27 ft	Easting:	2,409,873.572 ft	Longitude:	107° 35' 27.8628 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	10.34	65.86	52,521

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	265.02	

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	
1,693.76	22.34	265.02	1,671.28	-14.95	-171.43	2.50	2.50	0.00	265.02	
3,815.66	22.34	265.02	3,633.86	-85.04	-975.05	0.00	0.00	0.00	0.00	
5,305.27	0.00	0.00	5,086.00	-109.96	-1,260.76	1.50	-1.50	0.00	180.00	
7,305.27	0.00	0.00	7,086.00	-109.96	-1,260.76	0.00	0.00	0.00	0.00	Miller 32B-31-691

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Project:	GARFIELD COUNTY, COLORADO NAD 1983	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Miller Pad #4	North Reference:	True
Well:	Miller 32B-31-691	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	2.50	265.02	899.97	-0.19	-2.17	2.18	2.50	2.50	0.00
1,000.00	5.00	265.02	999.75	-0.76	-8.69	8.72	2.50	2.50	0.00
1,100.00	7.50	265.02	1,099.14	-1.70	-19.53	19.61	2.50	2.50	0.00
1,200.00	10.00	265.02	1,197.97	-3.03	-34.69	34.82	2.50	2.50	0.00
1,300.00	12.50	265.02	1,296.04	-4.72	-54.12	54.33	2.50	2.50	0.00
1,400.00	15.00	265.02	1,393.17	-6.79	-77.80	78.09	2.50	2.50	0.00
1,500.00	17.50	265.02	1,489.17	-9.22	-105.67	106.07	2.50	2.50	0.00
1,600.00	20.00	265.02	1,583.85	-12.01	-137.69	138.21	2.50	2.50	0.00
1,693.76	22.34	265.02	1,671.28	-14.95	-171.43	172.08	2.50	2.50	0.00
1,700.00	22.34	265.02	1,677.05	-15.16	-173.79	174.45	0.00	0.00	0.00
1,800.00	22.34	265.02	1,769.54	-18.46	-211.66	212.46	0.00	0.00	0.00
1,900.00	22.34	265.02	1,862.03	-21.76	-249.53	250.48	0.00	0.00	0.00
2,000.00	22.34	265.02	1,954.52	-25.07	-287.41	288.50	0.00	0.00	0.00
2,100.00	22.34	265.02	2,047.02	-28.37	-325.28	326.51	0.00	0.00	0.00
2,200.00	22.34	265.02	2,139.51	-31.67	-363.15	364.53	0.00	0.00	0.00
2,300.00	22.34	265.02	2,232.00	-34.98	-401.03	402.55	0.00	0.00	0.00
2,400.00	22.34	265.02	2,324.49	-38.28	-438.90	440.56	0.00	0.00	0.00
2,500.00	22.34	265.02	2,416.98	-41.58	-476.77	478.58	0.00	0.00	0.00
2,600.00	22.34	265.02	2,509.48	-44.89	-514.64	516.60	0.00	0.00	0.00
2,700.00	22.34	265.02	2,601.97	-48.19	-552.52	554.61	0.00	0.00	0.00
2,800.00	22.34	265.02	2,694.46	-51.49	-590.39	592.63	0.00	0.00	0.00
2,900.00	22.34	265.02	2,786.95	-54.80	-628.26	630.65	0.00	0.00	0.00
3,000.00	22.34	265.02	2,879.44	-58.10	-666.14	668.66	0.00	0.00	0.00
3,100.00	22.34	265.02	2,971.93	-61.40	-704.01	706.68	0.00	0.00	0.00
3,200.00	22.34	265.02	3,064.43	-64.71	-741.88	744.70	0.00	0.00	0.00
3,300.00	22.34	265.02	3,156.92	-68.01	-779.75	782.71	0.00	0.00	0.00
3,400.00	22.34	265.02	3,249.41	-71.31	-817.63	820.73	0.00	0.00	0.00
3,500.00	22.34	265.02	3,341.90	-74.61	-855.50	858.75	0.00	0.00	0.00
3,600.00	22.34	265.02	3,434.39	-77.92	-893.37	896.77	0.00	0.00	0.00
3,700.00	22.34	265.02	3,526.88	-81.22	-931.25	934.78	0.00	0.00	0.00
3,800.00	22.34	265.02	3,619.38	-84.52	-969.12	972.80	0.00	0.00	0.00
3,815.66	22.34	265.02	3,633.86	-85.04	-975.05	978.75	0.00	0.00	0.00
3,900.00	21.08	265.02	3,712.22	-87.75	-1,006.13	1,009.95	1.50	-1.50	0.00
4,000.00	19.58	265.02	3,805.98	-90.77	-1,040.74	1,044.69	1.50	-1.50	0.00
4,100.00	18.08	265.02	3,900.63	-93.58	-1,072.89	1,076.97	1.50	-1.50	0.00
4,200.00	16.58	265.02	3,996.09	-96.16	-1,102.56	1,106.75	1.50	-1.50	0.00
4,300.00	15.08	265.02	4,092.29	-98.53	-1,129.74	1,134.03	1.50	-1.50	0.00
4,400.00	13.58	265.02	4,189.18	-100.68	-1,154.39	1,158.77	1.50	-1.50	0.00
4,500.00	12.08	265.02	4,286.68	-102.61	-1,176.51	1,180.98	1.50	-1.50	0.00
4,600.00	10.58	265.02	4,384.73	-104.32	-1,196.08	1,200.62	1.50	-1.50	0.00
4,700.00	9.08	265.02	4,483.26	-105.80	-1,213.09	1,217.69	1.50	-1.50	0.00
4,800.00	7.58	265.02	4,582.20	-107.06	-1,227.52	1,232.18	1.50	-1.50	0.00
4,900.00	6.08	265.02	4,681.49	-108.09	-1,239.36	1,244.07	1.50	-1.50	0.00
5,000.00	4.58	265.02	4,781.05	-108.90	-1,248.62	1,253.36	1.50	-1.50	0.00

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Well:	Miller 32B-31-691	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)
5,100.00	3.08	265.02	4,880.83	-109.48	-1,255.27	1,260.03	1.50	-1.50	0.00
5,200.00	1.58	265.02	4,980.74	-109.83	-1,259.32	1,264.10	1.50	-1.50	0.00
5,300.00	0.08	265.02	5,080.73	-109.96	-1,260.76	1,265.54	1.50	-1.50	0.00
5,305.27	0.00	0.00	5,086.00	-109.96	-1,260.76	1,265.55	1.50	-1.50	0.00
5,400.00	0.00	0.00	5,180.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
5,500.00	0.00	0.00	5,280.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
5,600.00	0.00	0.00	5,380.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
5,700.00	0.00	0.00	5,480.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
5,800.00	0.00	0.00	5,580.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
5,900.00	0.00	0.00	5,680.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,000.00	0.00	0.00	5,780.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,100.00	0.00	0.00	5,880.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,200.00	0.00	0.00	5,980.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,300.00	0.00	0.00	6,080.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,400.00	0.00	0.00	6,180.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,500.00	0.00	0.00	6,280.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,600.00	0.00	0.00	6,380.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,700.00	0.00	0.00	6,480.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,800.00	0.00	0.00	6,580.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
6,900.00	0.00	0.00	6,680.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
7,000.00	0.00	0.00	6,780.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
7,100.00	0.00	0.00	6,880.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
7,200.00	0.00	0.00	6,980.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
7,300.00	0.00	0.00	7,080.73	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00
7,305.27	0.00	0.00	7,086.00	-109.96	-1,260.76	1,265.55	0.00	0.00	0.00

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
730.00	730.00	9 5/8"	9-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,309.82	3,166.00	Mesaverde		0.00	
4,189.47	3,986.00	Price Coal		0.00	
4,345.19	4,136.00	Top Gas		0.00	
7,005.27	6,786.00	Rollins		0.00	
	7,086.00	TD		0.00	

WELL DETAILS: Miller 32B-31-691

				Ground Level: 0.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot			
0.00	0.00	1609004.199	2409873.572	39° 29' 12.642 N	107° 35' 27.8628 W				

SECTION DETAILS

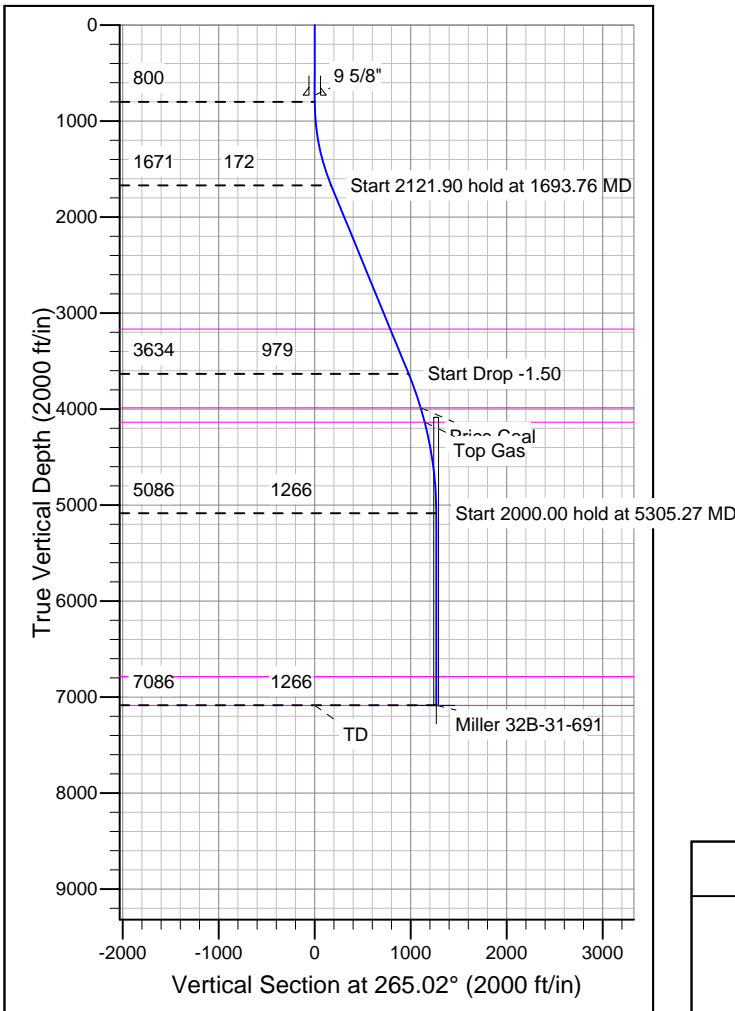
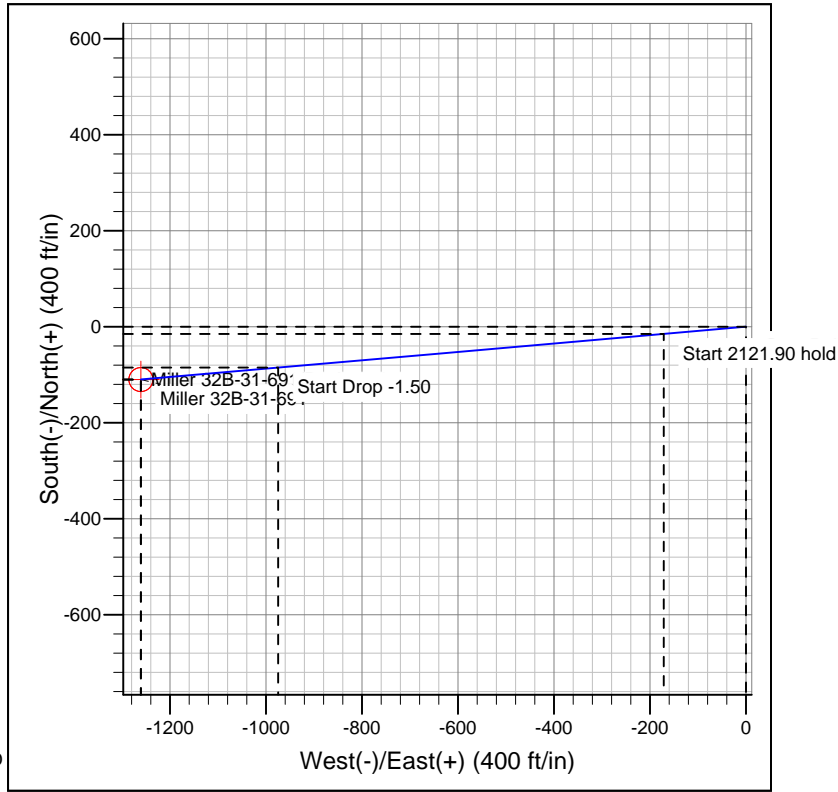
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	
3	1693.76	22.34	265.02	1671.28	-14.95	-171.43	2.50	265.02	172.08	
4	3815.66	22.34	265.02	3633.86	-85.04	-975.05	0.00	0.00	978.75	
5	5305.27	0.00	0.00	5086.00	-109.96	-1260.76	1.50	180.00	1265.55	
6	7305.27	0.00	0.00	7086.00	-109.96	-1260.76	0.00	0.00	1265.55	Miller 32B-31-691

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Miller 32B-31-691	7086.00	-109.96	-1260.76	Circle (Radius: 25.00)

Azimuths to True North
Magnetic North: 10.34°

Magnetic Field
Strength: 52521.1snT
Dip Angle: 65.86°
Date: 12/31/2009
Model: IGRF200510



FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	TD
3166.00	3309.82	Mesaverde	
3986.00	4189.47	Price Coal	
4136.00	4345.19	Top Gas	
6786.00	7005.27	Rollins	

REFERENCE INFORMATION	
Co-ordinate (N/E) Reference:	Well Miller 32B-31-691, 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