

BILL BARRETT CORP

GARFIELD COUNTY, COLORADO NAD 1983

Miller #5

Miller 14A-31-691

Wellbore #1

Plan: Design #1

Standard Planning Report

22 October, 2009

BBC

Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Miller 14A-31-691
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 6035.00ft (Original Well Elev)
Project:	GARFIELD COUNTY, COLORADO NAD 1983	MD Reference:	WELL @ 6035.00ft (Original Well Elev)
Site:	Miller #5	North Reference:	True
Well:	Miller 14A-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 #5		
Site Position:		Northing:	1,607,064.787 ft
From:	Lat/Long	Easting:	2,407,107.914 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	39° 28' 52.848 N
		Longitude:	107° 36' 2.5580 W
		Grid Convergence:	-1.32 °

Well	Miller 14A-31-691		
Well Position	+N/-S	-40.32 ft	Northing:
	+E/-W	-79.72 ft	Easting:
Position Uncertainty		0.00 ft	Wellhead Elevation:
			ft
			Latitude:
			39° 28' 52.449 N
			Longitude:
			107° 36' 3.5748 W
			Ground Level:
			0.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/4/2008	10.49	65.88	52,581

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	206.38

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	
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,317.14	39.18	206.38	2,197.84	-461.60	-228.92	2.50	2.50	0.00	206.38	
2,692.67	39.18	206.38	2,488.94	-674.13	-334.32	0.00	0.00	0.00	0.00	
5,304.56	0.00	0.00	4,902.00	-1,443.46	-715.85	1.50	-1.50	0.00	180.00	
7,204.56	0.00	0.00	6,802.00	-1,443.46	-715.85	0.00	0.00	0.00	0.00	TOG 14A-31-691

BBC
Planning Report

Database:	Compass	Local Co-ordinate Reference:	Well Miller 14A-31-691
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 6035.00ft (Original Well Elev)
Project:	GARFIELD COUNTY, COLORADO NAD 1983	MD Reference:	WELL @ 6035.00ft (Original Well Elev)
Site:	Miller #5	North Reference:	True
Well:	Miller 14A-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
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
800.00	1.25	206.38	800.00	-0.49	-0.24	0.55	2.50	2.50	0.00
900.00	3.75	206.38	899.89	-4.40	-2.18	4.91	2.50	2.50	0.00
1,000.00	6.25	206.38	999.50	-12.20	-6.05	13.62	2.50	2.50	0.00
1,100.00	8.75	206.38	1,098.64	-23.90	-11.85	26.67	2.50	2.50	0.00
1,200.00	11.25	206.38	1,197.11	-39.45	-19.57	44.04	2.50	2.50	0.00
1,300.00	13.75	206.38	1,294.74	-58.84	-29.18	65.68	2.50	2.50	0.00
1,400.00	16.25	206.38	1,391.32	-82.03	-40.68	91.56	2.50	2.50	0.00
1,500.00	18.75	206.38	1,486.69	-108.96	-54.04	121.63	2.50	2.50	0.00
1,600.00	21.25	206.38	1,580.65	-139.60	-69.23	155.83	2.50	2.50	0.00
1,700.00	23.75	206.38	1,673.03	-173.88	-86.23	194.09	2.50	2.50	0.00
1,800.00	26.25	206.38	1,763.65	-211.74	-105.01	236.35	2.50	2.50	0.00
1,900.00	28.75	206.38	1,852.35	-253.11	-125.52	282.52	2.50	2.50	0.00
2,000.00	31.25	206.38	1,938.94	-297.90	-147.73	332.52	2.50	2.50	0.00
2,100.00	33.75	206.38	2,023.27	-346.03	-171.60	386.24	2.50	2.50	0.00
2,200.00	36.25	206.38	2,105.18	-397.41	-197.09	443.60	2.50	2.50	0.00
2,300.00	38.75	206.38	2,184.51	-451.94	-224.13	504.47	2.50	2.50	0.00
2,317.14	39.18	206.38	2,197.84	-461.60	-228.92	515.24	2.50	2.50	0.00
2,400.00	39.18	206.38	2,262.07	-508.49	-252.18	567.59	0.00	0.00	0.00
2,500.00	39.18	206.38	2,339.59	-565.09	-280.24	630.76	0.00	0.00	0.00
2,600.00	39.18	206.38	2,417.11	-621.69	-308.31	693.94	0.00	0.00	0.00
2,692.67	39.18	206.38	2,488.94	-674.13	-334.32	752.48	0.00	0.00	0.00
2,700.00	39.07	206.38	2,494.63	-678.28	-336.38	757.11	1.50	-1.50	0.00
2,800.00	37.57	206.38	2,573.09	-733.82	-363.92	819.11	1.50	-1.50	0.00
2,900.00	36.07	206.38	2,653.14	-787.51	-390.55	879.03	1.50	-1.50	0.00
3,000.00	34.57	206.38	2,734.73	-839.30	-416.23	936.84	1.50	-1.50	0.00
3,100.00	33.07	206.38	2,817.81	-889.16	-440.96	992.50	1.50	-1.50	0.00
3,200.00	31.57	206.38	2,902.31	-937.06	-464.71	1,045.96	1.50	-1.50	0.00
3,300.00	30.07	206.38	2,988.19	-982.95	-487.47	1,097.19	1.50	-1.50	0.00
3,304.40	30.00	206.38	2,992.00	-984.92	-488.45	1,099.39	1.50	-1.50	0.00
Mesaverde									
3,400.00	28.57	206.38	3,075.38	-1,026.82	-509.23	1,146.15	1.50	-1.50	0.00
3,500.00	27.07	206.38	3,163.82	-1,068.63	-529.96	1,192.82	1.50	-1.50	0.00
3,600.00	25.57	206.38	3,253.45	-1,108.34	-549.66	1,237.15	1.50	-1.50	0.00
3,700.00	24.07	206.38	3,344.21	-1,145.95	-568.31	1,279.13	1.50	-1.50	0.00
3,800.00	22.57	206.38	3,436.04	-1,181.41	-585.89	1,318.71	1.50	-1.50	0.00
3,900.00	21.07	206.38	3,528.88	-1,214.70	-602.41	1,355.88	1.50	-1.50	0.00
4,000.00	19.57	206.38	3,622.65	-1,245.81	-617.83	1,390.60	1.50	-1.50	0.00
4,100.00	18.07	206.38	3,717.31	-1,274.71	-632.16	1,422.85	1.50	-1.50	0.00
4,136.44	17.52	206.38	3,752.00	-1,284.69	-637.11	1,433.99	1.50	-1.50	0.00
Price Coal									
4,200.00	16.57	206.38	3,812.77	-1,301.38	-645.39	1,452.62	1.50	-1.50	0.00
4,300.00	15.07	206.38	3,908.98	-1,325.80	-657.50	1,479.88	1.50	-1.50	0.00
4,400.00	13.57	206.38	4,005.87	-1,347.95	-668.49	1,504.61	1.50	-1.50	0.00

BBC

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Site:	Miller #5	North Reference:	True
Well:	Miller 14A-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)
4,447.38	12.86	206.38	4,052.00	-1,357.66	-673.30	1,515.44	1.50	-1.50	0.00
Top Gas									
4,500.00	12.07	206.38	4,103.38	-1,367.83	-678.34	1,526.80	1.50	-1.50	0.00
4,600.00	10.57	206.38	4,201.43	-1,385.41	-687.06	1,546.42	1.50	-1.50	0.00
4,700.00	9.07	206.38	4,299.96	-1,400.69	-694.64	1,563.47	1.50	-1.50	0.00
4,800.00	7.57	206.38	4,398.91	-1,413.65	-701.07	1,577.94	1.50	-1.50	0.00
4,900.00	6.07	206.38	4,498.20	-1,424.28	-706.34	1,589.81	1.50	-1.50	0.00
5,000.00	4.57	206.38	4,597.76	-1,432.59	-710.46	1,599.08	1.50	-1.50	0.00
5,100.00	3.07	206.38	4,697.54	-1,438.55	-713.42	1,605.74	1.50	-1.50	0.00
5,200.00	1.57	206.38	4,797.45	-1,442.18	-715.22	1,609.79	1.50	-1.50	0.00
5,300.00	0.07	206.38	4,897.44	-1,443.46	-715.85	1,611.21	1.50	-1.50	0.00
5,304.56	0.00	0.00	4,902.00	-1,443.46	-715.85	1,611.22	1.50	-1.50	0.00
5,400.00	0.00	0.00	4,997.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
5,500.00	0.00	0.00	5,097.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
5,600.00	0.00	0.00	5,197.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
5,700.00	0.00	0.00	5,297.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
5,800.00	0.00	0.00	5,397.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
5,900.00	0.00	0.00	5,497.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,000.00	0.00	0.00	5,597.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,100.00	0.00	0.00	5,697.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,200.00	0.00	0.00	5,797.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,300.00	0.00	0.00	5,897.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,400.00	0.00	0.00	5,997.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,500.00	0.00	0.00	6,097.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,600.00	0.00	0.00	6,197.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,700.00	0.00	0.00	6,297.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,800.00	0.00	0.00	6,397.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,900.00	0.00	0.00	6,497.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
6,904.56	0.00	0.00	6,502.00	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
Rollins									
7,000.00	0.00	0.00	6,597.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
7,100.00	0.00	0.00	6,697.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
7,200.00	0.00	0.00	6,797.44	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
7,204.56	0.00	0.00	6,802.00	-1,443.46	-715.85	1,611.22	0.00	0.00	0.00
TD									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
750.00	750.00	9 5/8"	9-5/8	12-1/4	

BBC

Planning Report

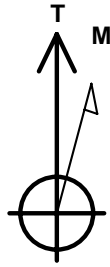
Database:	Compass	Local Co-ordinate Reference:	Well Miller 14A-31-691
Company:	BILL BARRETT CORP	TVD Reference:	WELL @ 6035.00ft (Original Well Elev)
Project:	GARFIELD COUNTY, COLORADO NAD 1983	MD Reference:	WELL @ 6035.00ft (Original Well Elev)
Site:	Miller #5	North Reference:	True
Well:	Miller 14A-31-691	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,304.40	2,992.00	Mesaverde		0.00		
4,136.44	3,752.00	Price Coal		0.00		
4,447.38	4,052.00	Top Gas		0.00		
6,904.56	6,502.00	Rollins		0.00		
7,204.56	6,802.00	TD		0.00		

WELL DETAILS: Miller 14A-31-691

Ground Level: 0.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1607026.324	2407027.280	39° 28' 52.4491N	107° 36' 3.5748 W	



Azimuths to True North
Magnetic North: 10.49°

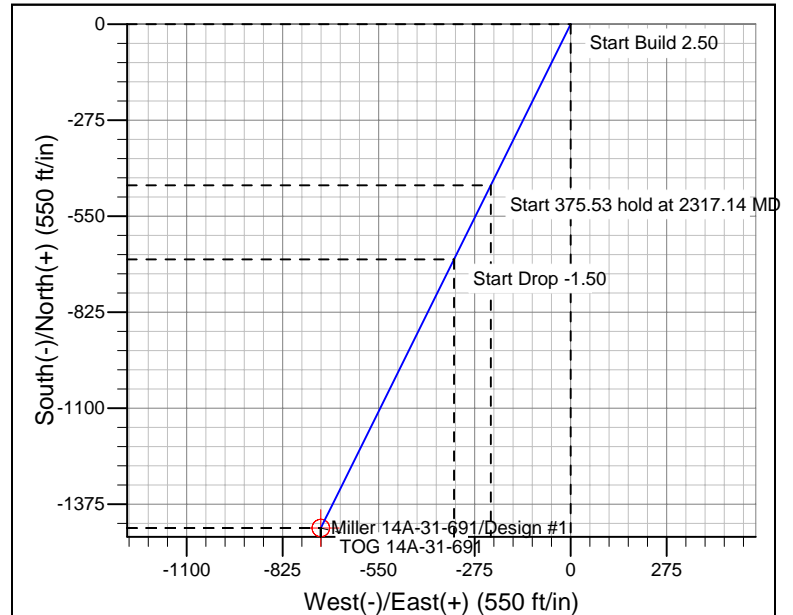
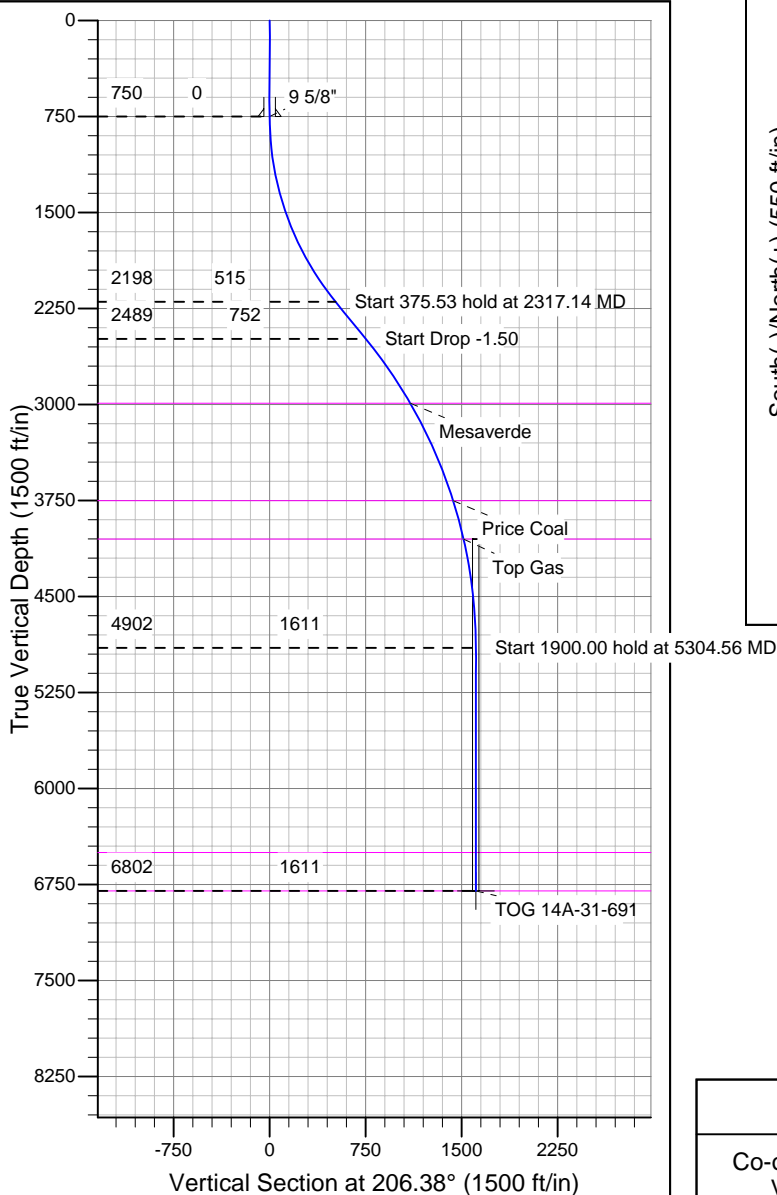
Magnetic Field
Strength: 52581.4snT
Dip Angle: 65.88°
Date: 11/4/2008
Model: IGRF200510

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	750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	
3	2317.14	39.18	206.38	2197.84	-461.60	-228.92	2.50	206.38	515.24	
4	2692.67	39.18	206.38	2488.94	-674.13	-334.32	0.00	0.00	752.48	
5	304.56	0.00	0.00	4902.00	-1443.46	-715.85	1.50	180.00	1611.22	
6	204.56	0.00	0.00	6802.00	-1443.46	-715.85	0.00	0.00	1611.22	TOG 14A-31-691

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
TOG 14A-31-691	6802.00	-1443.46	-715.85	Circle (Radius: 25.00)



CASING DETAILS

TVD	MD	Name	Size
750.00	750.00	9 5/8"	9-5/8

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2992.00	3304.40	Mesaverde
3752.00	4136.44	Price Coal
4052.00	4447.38	Top Gas
6502.00	6904.56	Rollins
6802.00	7204.56	TD

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Miller 14A-31-691, True North
 Vertical (TVD) Reference: WELL @ 6035.00ft (Original Well Elev)
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: WELL @ 6035.00ft (Original Well Elev)
 Calculation Method: Minimum Curvature