



Bill Barrett Corporation

Bill Barrett Corp.

Garfield County, Colorado

Miller 10 Pad

Miller Federal 24C-31-691

Wellbore #1

Survey: Surveys from Surface

Standard Survey Report

28 December, 2010



Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Miller Federal 24C-31-691
Project:	Garfield County, Colorado	TVD Reference:	KB @ 6283.00ft
Site:	Miller 10 Pad	MD Reference:	KB @ 6283.00ft
Well:	Miller Federal 24C-31-691	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass VM

Project	Garfield County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Miller 10 Pad			
Site Position:		Northing:	1,605,362.13 usft	Latitude:	39° 28' 36.39 N
From:	Lat/Long	Easting:	2,408,695.61 usft	Longitude:	107° 35' 41.81 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.32 °

Well		Miller Federal 24C-31-691				
Well Position	+N/-S	0.00 ft	Northing:	1,605,392.67 usft	Latitude:	39° 28' 36.69 N
	+E/-W	0.00 ft	Easting:	2,408,682.20 usft	Longitude:	107° 35' 41.99 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,261.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/28/10	10.26	65.83	52,408

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	307.59	

Survey Program	Date	12/28/10			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
50.00	690.00	Gyro Surveys (Wellbore #1)	MWD	MWD - Standard	
874.00	7,470.00	Surveys (Wellbore #1)	MWD	MWD - Standard	

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
50.00	0.320	51.31	50.00	0.09	0.11	-0.03	0.64	0.64	0.00	
100.00	0.280	61.49	100.00	0.23	0.33	-0.12	0.13	-0.08	20.36	
150.00	0.270	75.65	150.00	0.32	0.55	-0.24	0.14	-0.02	28.32	
200.00	0.350	82.54	200.00	0.37	0.81	-0.42	0.18	0.16	13.78	
250.00	0.440	91.11	250.00	0.39	1.16	-0.68	0.21	0.18	17.14	
300.00	0.260	139.37	300.00	0.30	1.42	-0.95	0.66	-0.36	96.52	
350.00	0.150	178.50	350.00	0.14	1.50	-1.10	0.34	-0.22	78.26	
400.00	0.280	163.72	400.00	-0.04	1.53	-1.24	0.28	0.26	-29.56	
450.00	0.210	209.99	449.99	-0.24	1.52	-1.35	0.41	-0.14	92.54	

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
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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)
500.00	0.310	222.89	499.99	-0.41	1.38	-1.35	0.23	0.20	25.80
550.00	0.260	267.91	549.99	-0.52	1.18	-1.25	0.45	-0.10	90.04
600.00	0.120	288.73	599.99	-0.50	1.02	-1.11	0.31	-0.28	41.64
650.00	0.220	307.51	649.99	-0.43	0.89	-0.97	0.23	0.20	37.56
690.00	0.100	334.17	689.99	-0.35	0.81	-0.86	0.35	-0.30	66.65
713.00	0.066	299.63	712.99	-0.33	0.79	-0.83	0.26	-0.15	-150.18
9 5/8"									
874.00	0.400	202.50	873.99	-0.80	0.50	-0.88	0.26	0.21	-60.33
966.00	1.700	283.70	965.98	-0.77	-0.95	0.28	1.83	1.41	88.26
1,061.00	4.200	305.60	1,060.85	1.59	-5.15	5.05	2.84	2.63	23.05
1,156.00	6.500	310.20	1,155.43	7.08	-12.09	13.90	2.46	2.42	4.84
1,251.00	9.200	315.00	1,249.53	15.93	-21.57	26.80	2.92	2.84	5.05
1,346.00	12.300	314.00	1,342.85	28.33	-34.22	44.39	3.27	3.26	-1.05
1,442.00	15.100	306.90	1,436.12	42.94	-51.58	67.06	3.40	2.92	-7.40
1,537.00	17.900	309.60	1,527.20	59.68	-72.73	94.03	3.06	2.95	2.84
1,632.00	21.000	306.50	1,616.77	79.12	-97.67	125.65	3.44	3.26	-3.26
1,727.00	23.900	309.40	1,704.56	101.46	-126.23	161.92	3.27	3.05	3.05
1,822.00	26.700	308.00	1,790.44	126.82	-157.92	202.50	3.01	2.95	-1.47
1,917.00	29.700	306.50	1,874.15	153.97	-193.67	247.38	3.24	3.16	-1.58
2,012.00	29.500	303.70	1,956.76	180.95	-232.05	294.25	1.47	-0.21	-2.95
2,107.00	30.100	307.00	2,039.20	208.26	-270.53	341.41	1.84	0.63	3.47
2,202.00	30.700	306.00	2,121.14	236.85	-309.18	389.47	0.83	0.63	-1.05
2,297.00	30.400	308.50	2,202.96	266.07	-347.61	437.75	1.37	-0.32	2.63
2,392.00	30.400	305.60	2,284.90	295.03	-385.97	485.81	1.54	0.00	-3.05
2,487.00	29.300	311.10	2,367.31	324.31	-423.04	533.04	3.10	-1.16	5.79
2,583.00	29.100	310.00	2,451.11	354.76	-458.62	579.82	0.60	-0.21	-1.15
2,678.00	29.200	307.80	2,534.08	383.81	-494.63	626.07	1.13	0.11	-2.32
2,773.00	28.900	310.20	2,617.14	412.83	-530.48	672.18	1.27	-0.32	2.53
2,868.00	28.900	311.00	2,700.31	442.71	-565.33	718.02	0.41	0.00	0.84
2,963.00	28.800	311.60	2,783.51	472.96	-599.77	763.77	0.32	-0.11	0.63
3,058.00	29.200	312.00	2,866.60	503.66	-634.11	809.70	0.47	0.42	0.42
3,153.00	27.900	306.80	2,950.06	532.49	-669.13	855.04	2.95	-1.37	-5.47
3,249.00	27.700	304.60	3,034.98	558.61	-705.48	899.78	1.09	-0.21	-2.29
3,344.00	28.500	307.40	3,118.79	584.92	-741.67	944.50	1.62	0.84	2.95
3,439.00	27.500	306.20	3,202.67	611.64	-777.37	989.09	1.21	-1.05	-1.26
3,534.00	29.300	308.00	3,286.23	638.91	-813.39	1,034.27	2.10	1.89	1.89
3,629.00	28.700	308.70	3,369.32	667.48	-849.51	1,080.32	0.73	-0.63	0.74
3,724.00	28.600	308.40	3,452.69	695.87	-885.13	1,125.86	0.18	-0.11	-0.32
3,819.00	26.100	307.60	3,537.07	722.75	-919.52	1,169.50	2.66	-2.63	-0.84
3,914.00	23.400	306.40	3,623.33	746.69	-951.26	1,209.27	2.89	-2.84	-1.26
4,010.00	19.900	304.30	3,712.55	767.22	-980.11	1,244.65	3.73	-3.65	-2.19
4,105.00	15.700	300.70	3,802.98	782.90	-1,004.53	1,273.56	4.57	-4.42	-3.79
4,200.00	13.600	304.90	3,894.89	795.86	-1,024.75	1,297.48	2.48	-2.21	4.42

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
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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)
4,295.00	12.000	312.30	3,987.53	808.89	-1,041.22	1,318.49	2.41	-1.68	7.79
4,390.00	8.600	313.70	4,080.99	820.45	-1,053.66	1,335.40	3.59	-3.58	1.47
4,485.00	6.200	310.70	4,175.19	828.71	-1,062.68	1,347.58	2.56	-2.53	-3.16
4,580.00	3.600	313.80	4,269.84	834.12	-1,068.73	1,355.67	2.75	-2.74	3.26
4,675.00	2.200	346.10	4,364.72	837.95	-1,071.32	1,360.06	2.21	-1.47	34.00
4,771.00	1.200	341.00	4,460.67	840.69	-1,072.09	1,362.35	1.05	-1.04	-5.31
4,866.00	0.300	32.30	4,555.67	841.84	-1,072.28	1,363.20	1.09	-0.95	54.00
4,961.00	0.200	247.10	4,650.67	841.99	-1,072.30	1,363.30	0.50	-0.11	-152.84
5,056.00	0.500	227.50	4,745.66	841.64	-1,072.76	1,363.46	0.34	0.32	-20.63
5,151.00	0.900	204.00	4,840.66	840.68	-1,073.37	1,363.35	0.51	0.42	-24.74
5,246.00	1.100	179.80	4,935.64	839.09	-1,073.67	1,362.62	0.49	0.21	-25.47
5,341.00	1.500	198.10	5,030.62	836.99	-1,074.05	1,361.64	0.60	0.42	19.26
5,437.00	2.100	200.60	5,126.57	834.15	-1,075.06	1,360.71	0.63	0.63	2.60
5,532.00	0.400	112.60	5,221.55	832.40	-1,075.37	1,359.88	2.24	-1.79	-92.63
5,627.00	0.900	162.90	5,316.54	831.56	-1,074.84	1,358.95	0.75	0.53	52.95
5,722.00	1.100	175.80	5,411.53	829.93	-1,074.55	1,357.74	0.32	0.21	13.58
5,817.00	2.200	194.00	5,506.49	827.25	-1,074.93	1,356.40	1.27	1.16	19.16
5,912.00	0.400	115.50	5,601.46	825.34	-1,075.07	1,355.35	2.27	-1.89	-82.63
6,007.00	1.400	7.10	5,696.45	826.35	-1,074.63	1,355.61	1.66	1.05	-114.11
6,102.00	0.800	349.50	5,791.44	828.15	-1,074.60	1,356.69	0.72	-0.63	-18.53
6,197.00	0.800	314.20	5,886.43	829.27	-1,075.20	1,357.84	0.51	0.00	-37.16
6,292.00	0.500	228.70	5,981.42	829.46	-1,075.99	1,358.58	0.96	-0.32	-90.00
6,387.00	1.300	217.90	6,076.41	828.33	-1,076.96	1,358.67	0.86	0.84	-11.37
6,482.00	0.400	326.20	6,171.40	827.76	-1,077.81	1,358.99	1.55	-0.95	114.00
6,578.00	1.700	30.70	6,267.39	829.26	-1,077.27	1,359.48	1.64	1.35	67.19
6,673.00	1.800	52.00	6,362.34	831.39	-1,075.37	1,359.28	0.69	0.11	22.42
6,768.00	1.700	61.30	6,457.30	832.99	-1,072.96	1,358.34	0.32	-0.11	9.79
6,863.00	1.100	61.30	6,552.27	834.10	-1,070.92	1,357.40	0.63	-0.63	0.00
6,958.00	0.800	115.10	6,647.26	834.26	-1,069.52	1,356.39	0.95	-0.32	56.63
7,053.00	1.500	150.40	6,742.24	832.90	-1,068.31	1,354.60	1.02	0.74	37.16
7,148.00	2.300	161.20	6,837.19	830.01	-1,067.08	1,351.86	0.92	0.84	11.37
7,243.00	2.400	162.60	6,932.11	826.31	-1,065.87	1,348.65	0.12	0.11	1.47
7,338.00	2.500	168.40	7,027.02	822.38	-1,064.86	1,345.45	0.28	0.11	6.11
7,425.00	2.500	182.40	7,113.94	818.63	-1,064.56	1,342.92	0.70	0.00	16.09
7,470.00	2.500	182.40	7,158.90	816.66	-1,064.64	1,341.79	0.00	0.00	0.00

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (ft)	Hole Diameter (ft)
713.00	712.99	9 5/8"	0.80	1.02

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Miller Federal 24C-31-691
Project:	Garfield County, Colorado	TVD Reference:	KB @ 6283.00ft
Site:	Miller 10 Pad	MD Reference:	KB @ 6283.00ft
Well:	Miller Federal 24C-31-691	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass VM

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
690.00	689.99	-0.35	0.81	End of Gyros

Checked By: _____ Approved By: _____ Date: _____