



Bill Barrett Corporation

Bill Barrett Corp.

Garfield County, Colorado [NAD83]

GGU 14-19 Pad

GGU Daley 31B-30-691

Wellbore #1

Survey: Surveys from Surface

Standard Survey Report

20 April, 2011



Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well GGU Daley 31B-30-691
Project:	Garfield County, Colorado [NAD83]	TVD Reference:	KB @ 5846.00ft
Site:	GGU 14-19 Pad	MD Reference:	KB @ 5846.00ft
Well:	GGU Daley 31B-30-691	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass VM

Project	Garfield County, Colorado [NAD83]		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	GGU 14-19 Pad				
Site Position:		Northing:	1,616,207.75 usft	Latitude:	39° 30' 23.35 N
From:	Lat/Long	Easting:	2,407,793.69 usft	Longitude:	107° 35' 56.51 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.32 °

Well	GGU Daley 31B-30-691					
Well Position	+N/-S	0.00 ft	Northing:	1,616,191.83 usft	Latitude:	39° 30' 23.19 N
	+E/-W	0.00 ft	Easting:	2,407,804.04 usft	Longitude:	107° 35' 56.37 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,823.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	03/23/11	10.20	65.83	52,332

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	130.09	

Survey Program	Date	04/20/11			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
50.00	780.00	Gyro Surveys (Wellbore #1)	MWD	MWD - Standard	
882.00	7,678.00	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	0.00
50.00	0.070	17.78	50.00	0.03	0.01	-0.01	0.14	0.14	0.00	
100.00	0.230	33.94	100.00	0.14	0.07	-0.03	0.33	0.32	32.32	
150.00	0.250	1.21	150.00	0.33	0.13	-0.11	0.27	0.04	-65.46	
200.00	0.300	64.47	200.00	0.50	0.25	-0.13	0.58	0.10	126.52	
250.00	0.290	299.46	250.00	0.62	0.26	-0.20	1.05	-0.02	-250.02	
300.00	0.290	245.62	300.00	0.63	0.04	-0.38	0.53	0.00	-107.68	
350.00	0.230	168.27	350.00	0.48	-0.06	-0.35	0.66	-0.12	-154.70	
400.00	0.110	94.31	400.00	0.38	0.01	-0.23	0.45	-0.24	-147.92	
450.00	0.140	74.29	450.00	0.39	0.12	-0.16	0.11	0.06	-40.04	

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well GGU Daley 31B-30-691
Project:	Garfield County, Colorado [NAD83]	TVD Reference:	KB @ 5846.00ft
Site:	GGU 14-19 Pad	MD Reference:	KB @ 5846.00ft
Well:	GGU Daley 31B-30-691	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass VM

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	0.150	46.01	500.00	0.45	0.22	-0.12	0.14	0.02	-56.56
550.00	0.240	49.79	550.00	0.56	0.35	-0.10	0.18	0.18	7.56
600.00	0.350	113.92	600.00	0.57	0.57	0.07	0.65	0.22	128.26
650.00	0.190	345.79	650.00	0.59	0.69	0.15	0.98	-0.32	-256.26
700.00	0.100	279.59	700.00	0.68	0.62	0.04	0.35	-0.18	-132.40
750.00	0.110	255.10	750.00	0.67	0.54	-0.02	0.09	0.02	-48.98
780.00	0.260	306.46	780.00	0.70	0.45	-0.11	0.70	0.50	171.20
832.00	0.091	325.35	832.00	0.81	0.33	-0.26	0.34	-0.33	36.34
9 5/8"									
882.00	0.100	91.30	882.00	0.84	0.36	-0.27	0.34	0.02	251.89
974.00	0.200	78.60	974.00	0.87	0.59	-0.11	0.11	0.11	-13.80
1,066.00	1.800	131.60	1,065.98	-0.06	1.83	1.44	1.83	1.74	57.61
1,158.00	5.500	139.80	1,157.78	-4.39	5.76	7.23	4.05	4.02	8.91
1,251.00	9.800	139.60	1,249.93	-13.82	13.77	19.44	4.62	4.62	-0.22
1,340.00	13.900	135.30	1,337.01	-27.20	26.20	37.56	4.71	4.61	-4.83
1,429.00	17.900	131.40	1,422.59	-43.85	43.99	61.89	4.65	4.49	-4.38
1,524.00	21.900	129.40	1,511.90	-64.76	68.64	94.21	4.27	4.21	-2.11
1,620.00	25.300	129.30	1,599.86	-89.12	98.36	132.64	3.54	3.54	-0.10
1,715.00	29.700	128.80	1,684.11	-116.74	132.43	176.49	4.64	4.63	-0.53
1,810.00	34.100	129.20	1,764.74	-148.33	171.42	226.67	4.64	4.63	0.42
1,906.00	38.200	129.40	1,842.24	-184.20	215.23	283.28	4.27	4.27	0.21
2,001.00	38.100	129.80	1,916.95	-221.60	260.45	341.96	0.28	-0.11	0.42
2,096.00	37.800	130.30	1,991.86	-259.19	305.17	400.38	0.45	-0.32	0.53
2,192.00	37.100	129.80	2,068.07	-296.75	349.85	458.76	0.79	-0.73	-0.52
2,287.00	36.600	130.50	2,144.09	-333.49	393.40	515.73	0.69	-0.53	0.74
2,382.00	35.700	130.90	2,220.80	-370.03	435.89	571.77	0.98	-0.95	0.42
2,477.00	34.800	130.50	2,298.38	-405.79	477.46	626.59	0.98	-0.95	-0.42
2,573.00	35.600	130.20	2,376.83	-441.61	519.63	681.93	0.85	0.83	-0.31
2,668.00	36.800	131.20	2,453.49	-478.20	562.16	738.03	1.41	1.26	1.05
2,764.00	36.500	130.50	2,530.51	-515.69	605.50	795.33	0.54	-0.31	-0.73
2,859.00	35.900	130.50	2,607.17	-552.12	648.17	851.43	0.63	-0.63	0.00
2,955.00	35.000	129.80	2,685.37	-588.03	690.72	907.11	1.03	-0.94	-0.73
3,050.00	36.200	131.20	2,762.62	-623.95	732.77	962.41	1.53	1.26	1.47
3,146.00	36.400	129.40	2,839.99	-660.70	776.11	1,019.24	1.13	0.21	-1.88
3,241.00	35.500	128.90	2,916.89	-695.92	819.36	1,075.00	1.00	-0.95	-0.53
3,337.00	34.400	127.10	2,995.58	-729.78	862.68	1,129.95	1.57	-1.15	-1.88
3,432.00	33.300	127.20	3,074.48	-761.74	904.86	1,182.80	1.16	-1.16	0.11
3,527.00	33.000	127.20	3,154.02	-793.14	946.24	1,234.68	0.32	-0.32	0.00
3,623.00	32.400	125.30	3,234.80	-823.81	988.05	1,286.42	1.24	-0.63	-1.98
3,718.00	29.600	126.80	3,316.23	-852.58	1,027.62	1,335.22	3.06	-2.95	1.58
3,814.00	28.500	129.00	3,400.15	-881.20	1,064.41	1,381.79	1.60	-1.15	2.29
3,907.00	27.200	127.20	3,482.38	-908.01	1,098.58	1,425.21	1.66	-1.40	-1.94
4,005.00	24.500	128.90	3,570.57	-934.32	1,132.24	1,467.90	2.86	-2.76	1.73

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well GGU Daley 31B-30-691
Project:	Garfield County, Colorado [NAD83]	TVD Reference:	KB @ 5846.00ft
Site:	GGU 14-19 Pad	MD Reference:	KB @ 5846.00ft
Well:	GGU Daley 31B-30-691	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass VM

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)	
4,100.00	22.500	131.00	3,657.68	-958.62	1,161.30	1,505.77	2.28	-2.11	2.21	
4,195.00	19.400	132.30	3,746.39	-981.17	1,186.69	1,539.72	3.30	-3.26	1.37	
4,291.00	17.200	132.10	3,837.53	-1,001.42	1,209.02	1,569.84	2.29	-2.29	-0.21	
4,385.00	14.300	131.20	3,927.99	-1,018.39	1,228.07	1,595.35	3.10	-3.09	-0.96	
4,481.00	13.500	132.30	4,021.18	-1,033.74	1,245.28	1,618.40	0.88	-0.83	1.15	
4,576.00	10.300	133.80	4,114.13	-1,047.08	1,259.61	1,637.96	3.38	-3.37	1.58	
4,671.00	7.600	136.10	4,207.96	-1,057.49	1,270.10	1,652.68	2.87	-2.84	2.42	
4,767.00	4.700	139.60	4,303.40	-1,065.06	1,277.05	1,662.88	3.04	-3.02	3.65	
4,862.00	2.900	140.10	4,398.19	-1,069.87	1,281.12	1,669.08	1.90	-1.89	0.53	
4,957.00	2.000	141.00	4,493.10	-1,073.00	1,283.70	1,673.08	0.95	-0.95	0.95	
5,053.00	1.400	117.30	4,589.06	-1,074.84	1,285.80	1,675.87	0.95	-0.63	-24.69	
5,148.00	1.700	116.00	4,684.02	-1,075.99	1,288.10	1,678.37	0.32	0.32	-1.37	
5,244.00	1.100	175.30	4,780.00	-1,077.53	1,289.45	1,680.40	1.54	-0.63	61.77	
5,339.00	1.100	173.10	4,874.98	-1,079.35	1,289.64	1,681.70	0.04	0.00	-2.32	
5,435.00	1.200	166.40	4,970.96	-1,081.24	1,289.98	1,683.19	0.17	0.10	-6.98	
5,530.00	1.400	243.20	5,065.94	-1,082.73	1,289.18	1,683.53	1.71	0.21	80.84	
5,624.00	1.500	290.00	5,159.92	-1,082.83	1,287.00	1,681.93	1.23	0.11	49.79	
5,720.00	1.700	344.60	5,255.88	-1,081.02	1,285.44	1,679.57	1.54	0.21	56.88	
5,815.00	1.200	341.60	5,350.85	-1,078.72	1,284.75	1,677.57	0.53	-0.53	-3.16	
5,910.00	0.600	311.70	5,445.84	-1,077.45	1,284.07	1,676.22	0.78	-0.63	-31.47	
6,006.00	0.600	340.70	5,541.84	-1,076.64	1,283.53	1,675.29	0.31	0.00	30.21	
6,101.00	1.800	359.70	5,636.82	-1,074.68	1,283.35	1,673.89	1.31	1.26	20.00	
6,197.00	0.600	21.20	5,732.79	-1,072.70	1,283.53	1,672.75	1.31	-1.25	22.40	
6,292.00	0.500	117.30	5,827.79	-1,072.43	1,284.08	1,672.99	0.86	-0.11	101.16	
6,387.00	1.100	165.80	5,922.78	-1,073.50	1,284.67	1,674.14	0.90	0.63	51.05	
6,483.00	1.700	151.90	6,018.75	-1,075.65	1,285.57	1,676.21	0.71	0.63	-14.48	
6,577.00	0.900	192.30	6,112.73	-1,077.60	1,286.07	1,677.85	1.24	-0.85	42.98	
6,673.00	0.700	181.60	6,208.72	-1,078.92	1,285.89	1,678.56	0.26	-0.21	-11.15	
6,768.00	0.700	248.10	6,303.71	-1,079.72	1,285.33	1,678.65	0.81	0.00	70.00	
6,864.00	1.700	324.40	6,399.70	-1,078.78	1,283.96	1,677.00	1.75	1.04	79.48	
6,959.00	1.100	332.20	6,494.67	-1,076.83	1,282.71	1,674.79	0.66	-0.63	8.21	
7,055.00	0.600	29.80	6,590.66	-1,075.58	1,282.53	1,673.84	0.97	-0.52	60.00	
7,150.00	0.700	104.40	6,685.65	-1,075.29	1,283.34	1,674.28	0.83	0.11	78.53	
7,244.00	2.000	136.30	6,779.63	-1,076.62	1,285.03	1,676.43	1.55	1.38	33.94	
7,339.00	0.600	147.80	6,874.60	-1,078.24	1,286.44	1,678.55	1.49	-1.47	12.11	
7,435.00	0.400	129.40	6,970.60	-1,078.88	1,286.97	1,679.36	0.26	-0.21	-19.17	
7,529.00	0.500	80.10	7,064.59	-1,079.01	1,287.63	1,679.95	0.41	0.11	-52.45	
7,624.00	0.800	91.70	7,159.59	-1,078.96	1,288.70	1,680.74	0.34	0.32	12.21	
7,678.00	0.800	91.70	7,213.58	-1,078.98	1,289.45	1,681.33	0.00	0.00	0.00	

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well GGU Daley 31B-30-691
Project:	Garfield County, Colorado [NAD83]	TVD Reference:	KB @ 5846.00ft
Site:	GGU 14-19 Pad	MD Reference:	KB @ 5846.00ft
Well:	GGU Daley 31B-30-691	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass VM

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)		Name	Casing Diameter (ft)	Hole Diameter (ft)
832.00	832.00	9 5/8"		0.80	1.02

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
780.00	780.00	0.70	0.45	End of Gyros	

Checked By: _____ Approved By: _____ Date: _____