

# **Bill Barrett Corp. (II)**

**Garfield County, Colorado [NAD83]**

**Circle B Tract 5 Pad**

**CBS 42D-21-692**

**Wellbore #1**

**Design: Wellbore #1**

## **Standard Survey Report**

**19 December, 2011**

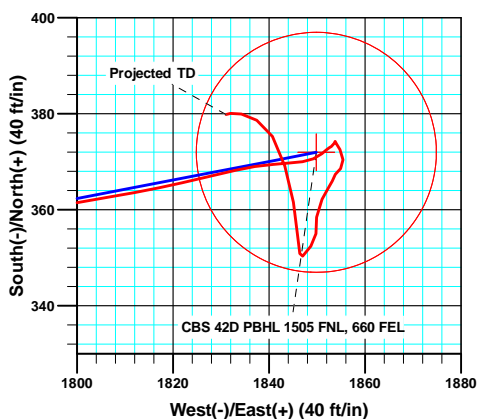
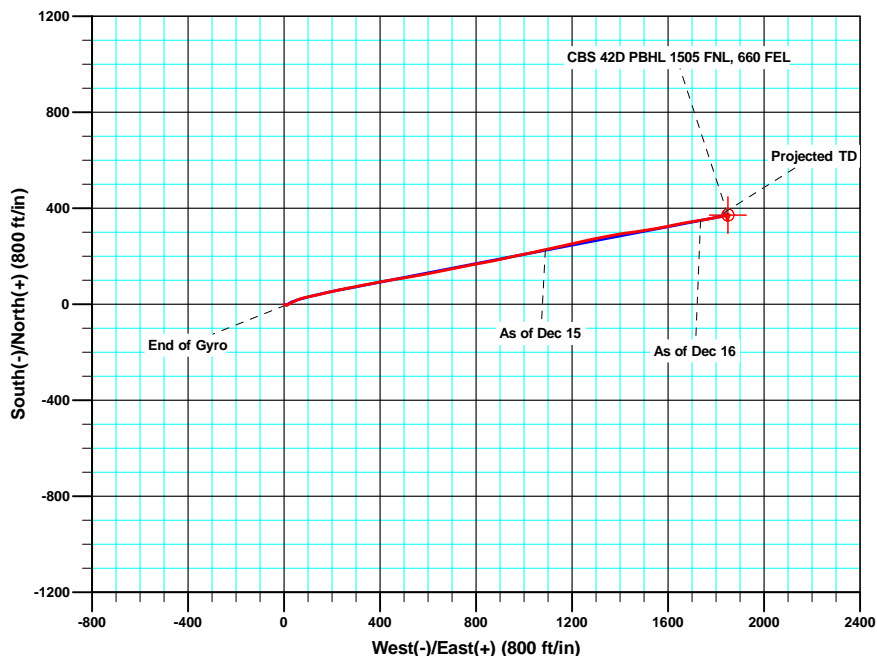
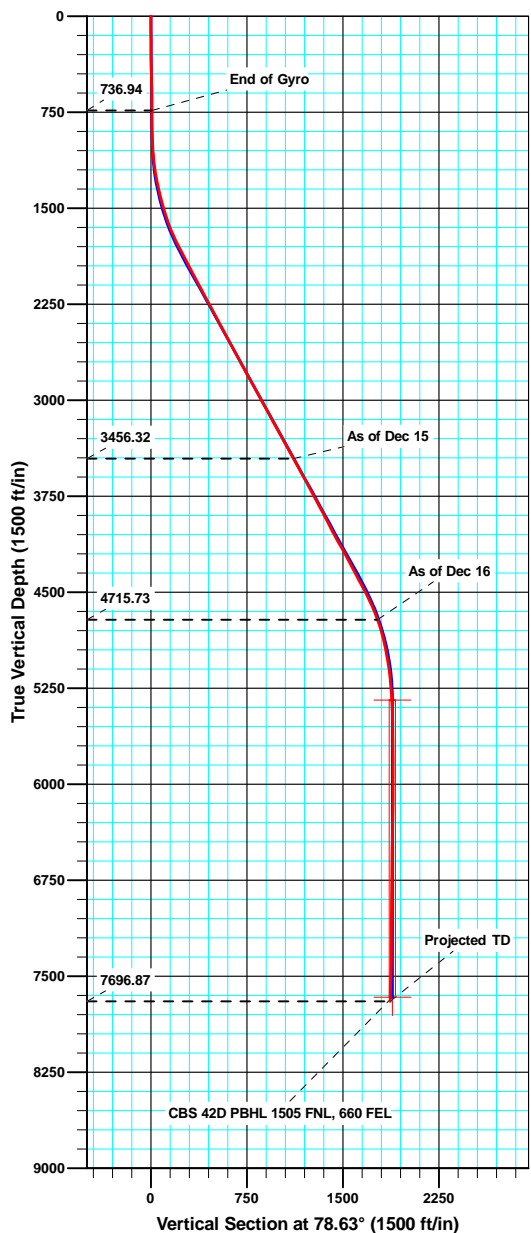


## WELL DETAILS: CBS 42D-21-692

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone

+N/-S +E/-W Northing Easting Latitude Longitude  
0.00 0.00 1619631.15 2387487.42 39° 30' 52.46 N 107° 40' 16.56 W

Ground Level: 5743.50



Azimuths to True North  
Magnetic North: 10.23°

Magnetic Field  
Strength: 52318.3snT  
Dip Angle: 65.82°  
Date: 4/26/2011  
Model: IGRF2010

### ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
736.94	737.00	0.700	111.85	-2.79	8.04	7.33	8.69	End of Gyro
3456.32	3715.00	29.100	77.25	227.39	1089.07	1112.53	1117.21	As of Dec 15
4715.73	5137.00	20.400	81.10	350.17	1735.54	1770.51	1775.48	As of Dec 16
7696.87	8132.00	1.100	255.50	379.86	1831.04	1870.00	1963.86	Projected TD

# Sharewell

## Survey Report

<b>Company:</b>	Bill Barrett Corp. (II)	<b>Local Co-ordinate Reference:</b>	Well CBS 42D-21-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5767.00ft
<b>Site:</b>	Circle B Tract 5 Pad	<b>MD Reference:</b>	KB @ 5767.00ft
<b>Well:</b>	CBS 42D-21-692	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

<b>Project</b>	Garfield County, Colorado [NAD83]		
<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	Circle B Tract 5 Pad				
Site Position:		Northing:	1,619,626.42 usft	Latitude:	39° 30' 52.41 N
From:	Lat/Long	Easting:	2,387,502.83 usft	Longitude:	107° 40' 16.36 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.37 °

Well	CBS 42D-21-692					
Well Position	+N/-S	0.00 ft	Northing:	1,619,631.15 usft	Latitude:	39° 30' 52.46 N
	+E/-W	0.00 ft	Easting:	2,387,487.42 usft	Longitude:	107° 40' 16.56 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,743.50 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>
	IGRF2010	4/26/2011	10.23	65.82	52,318

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<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	78.63	

<b>Survey Program</b>	<b>Date</b>	12/19/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	737.00	Survey #1 (Wellbore #1)	Gyro	Gyro	
876.00	8,132.00	MWD (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.430	90.42	100.00	0.00	0.38	0.37	0.43	0.43	0.00	
200.00	0.790	94.08	199.99	-0.05	1.44	1.40	0.36	0.36	3.66	
300.00	0.640	121.53	299.99	-0.40	2.60	2.47	0.37	-0.15	27.45	
400.00	0.880	112.22	399.98	-0.98	3.79	3.52	0.27	0.24	-9.31	
500.00	0.780	99.91	499.97	-1.39	5.17	4.80	0.20	-0.10	-12.31	
600.00	0.770	122.35	599.96	-1.86	6.41	5.92	0.30	-0.01	22.44	
700.00	0.820	119.38	699.95	-2.57	7.60	6.94	0.06	0.05	-2.97	
737.00	0.700	111.85	736.95	-2.79	8.04	7.33	0.42	-0.32	-20.35	
876.00	1.400	121.20	875.92	-3.98	10.28	9.29	0.52	0.50	6.73	

# Sharewell

## Survey Report

<b>Company:</b>	Bill Barrett Corp. (II)	<b>Local Co-ordinate Reference:</b>	Well CBS 42D-21-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5767.00ft
<b>Site:</b>	Circle B Tract 5 Pad	<b>MD Reference:</b>	KB @ 5767.00ft
<b>Well:</b>	CBS 42D-21-692	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
970.00	1.800	66.00	969.89	-3.98	12.61	11.58	1.62	0.43	-58.72
1,064.00	4.700	61.20	1,063.73	-1.52	17.34	16.70	3.10	3.09	-5.11
1,159.00	7.500	59.00	1,158.18	3.55	26.06	26.25	2.96	2.95	-2.32
1,253.00	10.600	63.10	1,251.00	10.62	39.03	40.36	3.37	3.30	4.36
1,348.00	12.900	67.30	1,344.00	18.67	56.61	59.18	2.58	2.42	4.42
1,443.00	14.500	75.60	1,436.31	25.72	77.92	81.46	2.66	1.68	8.74
1,538.00	17.100	77.60	1,527.71	31.68	103.08	107.31	2.80	2.74	2.11
1,634.00	20.200	78.30	1,618.66	38.07	133.11	138.00	3.24	3.23	0.73
1,729.00	23.700	76.60	1,706.76	45.82	167.75	173.49	3.74	3.68	-1.79
1,824.00	26.100	77.20	1,792.92	54.88	206.71	213.47	2.54	2.53	0.63
1,918.00	27.400	78.40	1,876.86	63.81	248.06	255.77	1.50	1.38	1.28
2,013.00	28.900	78.90	1,960.62	72.63	292.00	300.59	1.60	1.58	0.53
2,108.00	28.400	78.40	2,043.99	81.59	336.66	346.14	0.58	-0.53	-0.53
2,203.00	28.100	79.70	2,127.68	90.13	380.80	391.10	0.72	-0.32	1.37
2,297.00	28.100	80.20	2,210.60	97.86	424.40	435.36	0.25	0.00	0.53
2,392.00	27.400	81.70	2,294.67	104.82	468.08	479.56	1.04	-0.74	1.58
2,487.00	28.100	80.70	2,378.74	111.59	511.79	523.74	0.88	0.74	-1.05
2,581.00	28.600	79.00	2,461.47	119.46	555.72	568.36	1.01	0.53	-1.81
2,676.00	28.200	79.40	2,545.04	127.93	600.10	613.55	0.47	-0.42	0.42
2,771.00	29.000	78.60	2,628.45	136.61	644.74	659.02	0.93	0.84	-0.84
2,866.00	29.000	78.20	2,711.54	145.87	689.86	705.08	0.20	0.00	-0.42
2,961.00	28.700	78.40	2,794.74	155.17	734.74	750.91	0.33	-0.32	0.21
3,055.00	28.700	79.30	2,877.20	163.90	779.03	796.05	0.46	0.00	0.96
3,150.00	27.900	80.30	2,960.84	171.88	823.36	841.08	0.98	-0.84	1.05
3,245.00	29.300	78.00	3,044.25	180.46	868.01	886.55	1.87	1.47	-2.42
3,338.00	28.600	77.70	3,125.63	189.93	912.01	931.56	0.77	-0.75	-0.32
3,433.00	29.700	77.60	3,208.60	199.83	957.22	977.83	1.16	1.16	-0.11
3,528.00	28.800	78.60	3,291.48	209.41	1,002.63	1,024.24	1.08	-0.95	1.05
3,620.00	27.400	78.60	3,372.64	217.97	1,045.11	1,067.57	1.52	-1.52	0.00
3,715.00	29.100	77.25	3,456.32	227.39	1,089.07	1,112.53	1.91	1.79	-1.42
3,810.00	29.900	76.90	3,539.00	237.85	1,134.67	1,159.29	0.86	0.84	-0.37
3,905.00	28.600	78.30	3,621.89	247.83	1,180.00	1,205.70	1.55	-1.37	1.47
3,999.00	27.900	76.90	3,704.69	257.38	1,223.45	1,250.18	1.03	-0.74	-1.49
4,094.00	28.700	77.70	3,788.34	267.28	1,267.39	1,295.21	0.93	0.84	0.84
4,189.00	27.000	79.40	3,872.33	276.10	1,310.87	1,339.58	1.97	-1.79	1.79
4,284.00	27.300	79.20	3,956.86	284.15	1,353.47	1,382.93	0.33	0.32	-0.21
4,379.00	27.900	80.00	4,041.05	292.10	1,396.76	1,426.93	0.74	0.63	0.84
4,474.00	29.800	81.90	4,124.26	299.28	1,442.03	1,472.73	2.22	2.00	2.00
4,566.00	29.200	82.30	4,204.33	305.51	1,486.90	1,517.95	0.69	-0.65	0.43
4,661.00	27.600	79.10	4,287.90	312.78	1,531.48	1,563.08	2.32	-1.68	-3.37
4,756.00	27.200	79.80	4,372.24	320.78	1,574.46	1,606.80	0.54	-0.42	0.74
4,851.00	29.300	78.70	4,455.93	329.18	1,618.63	1,651.76	2.28	2.21	-1.16
4,946.00	26.300	79.00	4,539.95	337.76	1,662.09	1,696.06	3.16	-3.16	0.32

# Sharewell

## Survey Report

<b>Company:</b>	Bill Barrett Corp. (II)	<b>Local Co-ordinate Reference:</b>	Well CBS 42D-21-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5767.00ft
<b>Site:</b>	Circle B Tract 5 Pad	<b>MD Reference:</b>	KB @ 5767.00ft
<b>Well:</b>	CBS 42D-21-692	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)	
5,041.00	22.600	80.90	4,626.42	344.66	1,700.79	1,735.36	3.98	-3.89	2.00	
5,137.00	20.400	81.10	4,715.73	350.17	1,735.54	1,770.51	2.29	-2.29	0.21	
5,232.00	16.400	79.60	4,805.86	355.15	1,765.10	1,800.47	4.24	-4.21	-1.58	
5,328.00	12.100	79.50	4,898.88	359.44	1,788.33	1,824.09	4.48	-4.48	-0.10	
5,422.00	10.500	80.70	4,991.06	362.62	1,806.47	1,842.51	1.72	-1.70	1.28	
5,517.00	8.500	76.80	5,084.75	365.62	1,821.85	1,858.18	2.21	-2.11	-4.11	
5,612.00	5.300	76.80	5,179.05	368.22	1,832.96	1,869.58	3.37	-3.37	0.00	
5,707.00	4.400	86.20	5,273.71	369.47	1,840.87	1,877.58	1.26	-0.95	9.89	
5,802.00	3.000	82.60	5,368.51	370.03	1,846.97	1,883.67	1.49	-1.47	-3.79	
5,897.00	2.500	49.60	5,463.41	371.69	1,851.01	1,887.96	1.72	-0.53	-34.74	
5,992.00	0.500	68.40	5,558.37	373.19	1,852.98	1,890.18	2.14	-2.11	19.79	
6,087.00	0.700	23.00	5,653.36	373.87	1,853.59	1,890.92	0.52	0.21	-47.79	
6,182.00	0.200	194.80	5,748.36	374.25	1,853.77	1,891.17	0.95	-0.53	180.84	
6,276.00	0.600	135.70	5,842.36	373.74	1,854.08	1,891.37	0.56	0.43	-62.87	
6,371.00	1.100	157.00	5,937.35	372.54	1,854.78	1,891.82	0.61	0.53	22.42	
6,466.00	1.600	167.90	6,032.32	370.41	1,855.41	1,892.02	0.59	0.53	11.47	
6,562.00	1.100	234.90	6,128.30	368.57	1,854.94	1,891.20	1.61	-0.52	69.79	
6,657.00	0.900	210.20	6,223.29	367.40	1,853.82	1,889.87	0.50	-0.21	-26.00	
6,751.00	1.000	200.20	6,317.27	365.99	1,853.16	1,888.95	0.21	0.11	-10.64	
6,846.00	1.300	215.20	6,412.26	364.33	1,852.26	1,887.73	0.44	0.32	15.79	
6,941.00	1.700	204.40	6,507.22	362.17	1,851.05	1,886.13	0.51	0.42	-11.37	
7,036.00	3.000	192.30	6,602.14	358.45	1,849.94	1,884.30	1.46	1.37	-12.74	
7,131.00	1.300	161.20	6,697.07	355.00	1,849.76	1,883.44	2.11	-1.79	-32.74	
7,226.00	2.500	221.50	6,792.03	352.43	1,848.73	1,881.93	2.29	1.26	63.47	
7,321.00	0.800	212.70	6,886.99	350.32	1,847.00	1,879.82	1.80	-1.79	-9.26	
7,416.00	1.400	348.20	6,981.98	350.90	1,846.41	1,879.35	2.16	0.63	142.63	
7,511.00	3.500	355.70	7,076.88	354.93	1,845.95	1,879.70	2.23	2.21	7.89	
7,605.00	4.700	350.50	7,170.64	361.59	1,845.10	1,880.18	1.34	1.28	-5.53	
7,700.00	4.700	342.80	7,265.32	369.14	1,843.31	1,879.91	0.66	0.00	-8.11	
7,795.00	3.400	329.90	7,360.09	375.30	1,840.74	1,878.61	1.66	-1.37	-13.58	
7,890.00	2.500	296.40	7,454.97	378.66	1,837.48	1,876.06	2.01	-0.95	-35.26	
7,985.00	1.700	285.40	7,549.90	379.95	1,834.26	1,873.17	0.94	-0.84	-11.58	
8,082.00	1.100	255.50	7,646.87	380.10	1,831.97	1,870.95	0.95	-0.62	-30.82	
8,132.00	1.100	255.50	7,696.87	379.86	1,831.04	1,870.00	0.00	0.00	0.00	

**Sharewell**  
Survey Report

<b>Company:</b>	Bill Barrett Corp. (II)	<b>Local Co-ordinate Reference:</b>	Well CBS 42D-21-692
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>TVD Reference:</b>	KB @ 5767.00ft
<b>Site:</b>	Circle B Tract 5 Pad	<b>MD Reference:</b>	KB @ 5767.00ft
<b>Well:</b>	CBS 42D-21-692	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Compass VM

**Design Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
737.00	736.94	-2.79	8.04	End of Gyro
3,715.00	3,456.32	227.39	1,089.07	As of Dec 15
5,137.00	4,715.73	350.17	1,735.54	As of Dec 16
8,132.00	7,696.87	379.86	1,831.04	Projected TD

Checked By: _____	Approved By: _____	Date: _____
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