

Bill Barrett Corp.

Garfield County, Colorado [NAD83]

Kaufman 7 Pad

Kaufman 24C-24-692

Wellbore #1

Design: Wellbore #1

Standard Survey Report

24 August, 2011

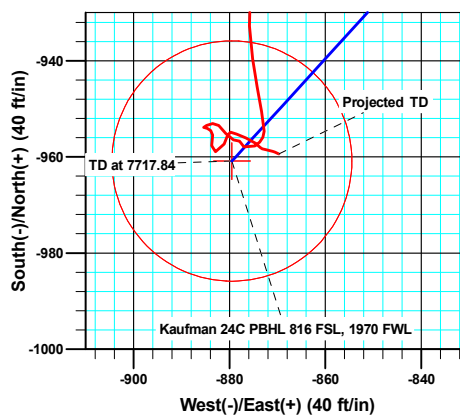
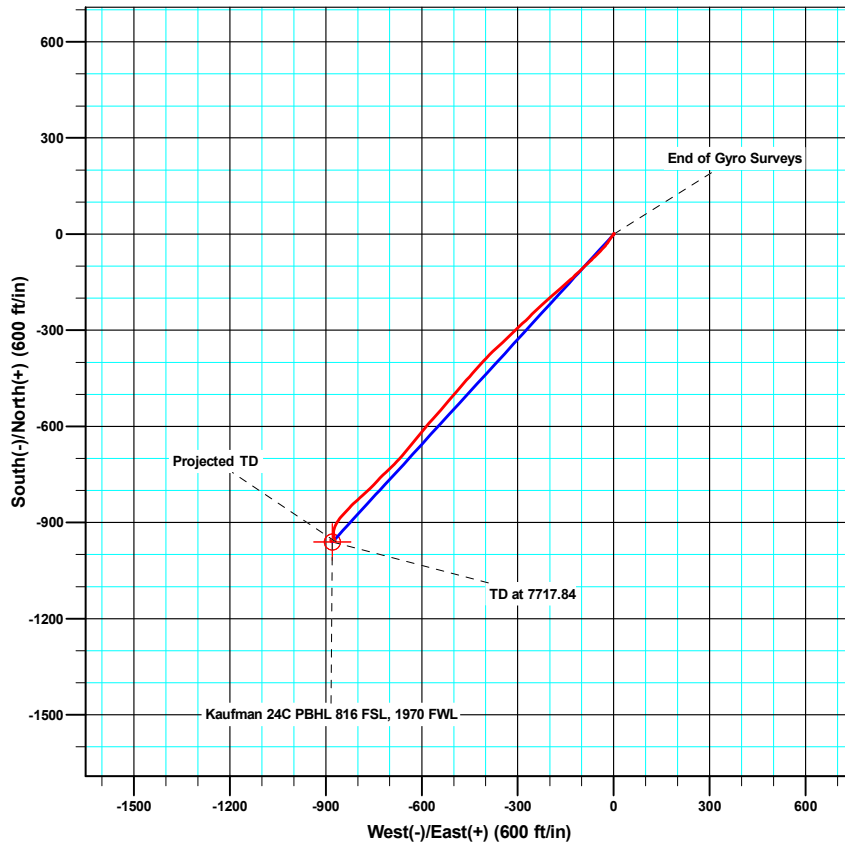
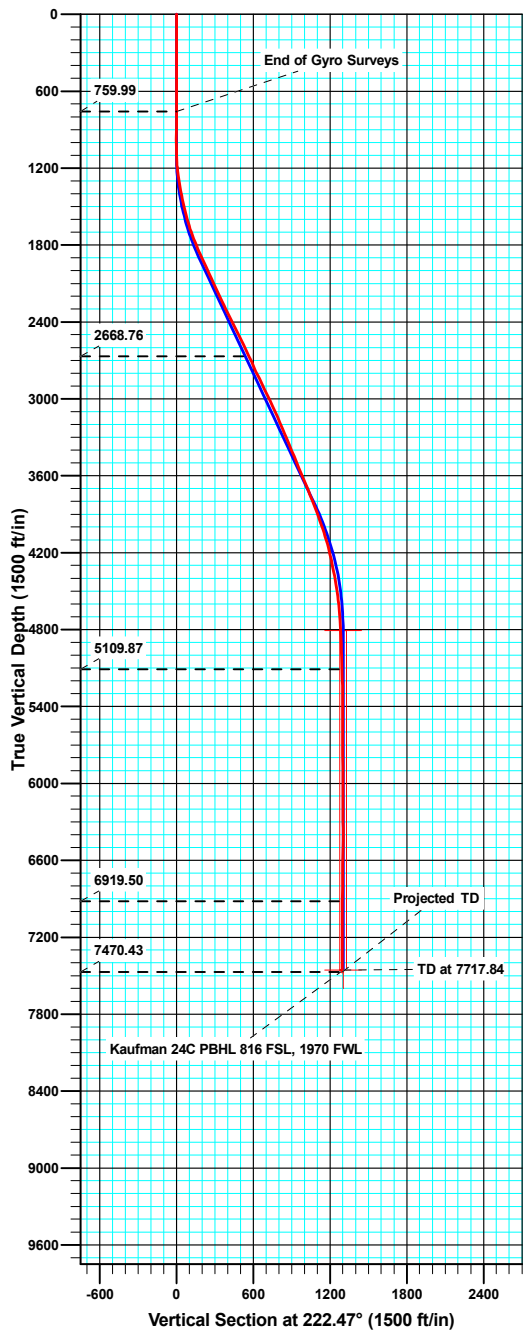
Well Details: Kaufman 24C-24-692



Bill Barrett Corporation

Ground Level: 5843.00

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.00 0.00 1617730.87 2403403.42 39.510386 -107.614711



Azimuths to True North
 Magnetic North: 10.20°

Magnetic Field
 Strength: 52320.6snT
 Dip Angle: 65.83°
 Date: 2011/05/03
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
759.99	760.00	0.07	221.16	0.24	1.20	-0.99	2.85	End of Gyro Surveys
2668.76	2783.00	25.00	222.00	-395.79	-407.04	566.78	576.55	As of Aug 21
5109.87	5359.00	2.50	182.60	-954.65	-872.76	1293.47	1315.75	As of Aug 22
6919.50	7169.00	1.70	109.70	-956.00	-876.59	1297.05	1351.84	As of Aug 23
7470.43	7720.00	1.10	111.50	-959.32	-869.72	1294.86	1359.94	Projected TD



Sharewell

Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Kaufman 24C-24-692
Project:	Garfield County, Colorado [NAD83]	TVD Reference:	KB @ 5866.00ft
Site:	Kaufman 7 Pad	MD Reference:	KB @ 5866.00ft
Well:	Kaufman 24C-24-692	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		Kaufman 7 Pad			
Site Position:		Northing:	1,617,736.60 usft	Latitude:	39.510401
From:	Lat/Long	Easting:	2,403,391.98 usft	Longitude:	-107.614752
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.33 °

Well		Kaufman 24C-24-692				
Well Position	+N/-S	0.00 ft	Northing:	1,617,730.87 usft	Latitude:	39.510386
	+E/-W	0.00 ft	Easting:	2,403,403.42 usft	Longitude:	-107.614711
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,843.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/03/11	10.20	65.83	52,321

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	222.47	

Survey Program	Date	08/24/11			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	760.00	Gyro Surveys (Wellbore #1)	MWD	MWD - Standard	
884.00	7,720.00	MWD 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.28	348.14	100.00	0.24	-0.05	-0.14	0.28	0.28	0.00	
200.00	0.23	17.62	200.00	0.67	-0.04	-0.47	0.14	-0.05	29.48	
300.00	0.27	41.85	300.00	1.04	0.18	-0.88	0.11	0.04	24.23	
400.00	0.36	114.51	400.00	1.08	0.62	-1.22	0.38	0.09	72.66	
500.00	0.19	128.10	500.00	0.85	1.04	-1.33	0.18	-0.17	13.59	
600.00	0.25	168.72	599.99	0.53	1.21	-1.21	0.16	0.06	40.62	
700.00	0.04	210.50	699.99	0.29	1.24	-1.05	0.22	-0.21	41.78	
760.00	0.07	221.16	759.99	0.24	1.20	-0.99	0.05	0.05	17.77	
884.00	0.40	81.00	883.99	0.25	1.58	-1.25	0.37	0.27	-113.03	

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Survey Report

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Site:	Kaufman 7 Pad	MD Reference:	KB @ 5866.00ft
Well:	Kaufman 24C-24-692	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)
976.00	0.90	358.60	975.99	1.03	1.88	-2.03	1.02	0.54	-89.57
1,069.00	1.50	209.60	1,068.98	0.70	1.26	-1.36	2.49	0.65	-160.22
1,161.00	4.00	224.60	1,160.87	-2.63	-1.59	3.02	2.80	2.72	16.30
1,256.00	8.30	213.50	1,255.30	-10.72	-7.70	13.11	4.68	4.53	-11.68
1,352.00	9.70	213.70	1,350.12	-23.22	-16.02	27.94	1.46	1.46	0.21
1,447.00	11.50	220.70	1,443.50	-37.06	-26.63	45.32	2.33	1.89	7.37
1,543.00	14.20	224.10	1,537.08	-52.78	-41.07	66.66	2.92	2.81	3.54
1,638.00	16.80	226.90	1,628.62	-70.53	-59.21	92.00	2.85	2.74	2.95
1,734.00	20.10	225.30	1,719.68	-91.62	-81.07	122.32	3.48	3.44	-1.67
1,829.00	22.70	226.90	1,808.12	-115.63	-106.06	156.90	2.80	2.74	1.68
1,924.00	25.70	228.20	1,894.76	-141.89	-134.81	195.68	3.21	3.16	1.37
2,020.00	25.10	229.10	1,981.48	-169.09	-165.72	236.62	0.74	-0.63	0.94
2,115.00	23.90	228.40	2,067.93	-195.06	-195.34	275.78	1.30	-1.26	-0.74
2,211.00	25.80	227.90	2,155.03	-221.98	-225.38	315.92	1.99	1.98	-0.52
2,306.00	25.00	225.50	2,240.85	-249.92	-255.04	356.55	1.37	-0.84	-2.53
2,401.00	27.00	227.60	2,326.24	-278.53	-285.29	398.08	2.32	2.11	2.21
2,497.00	27.00	225.60	2,411.77	-308.47	-316.95	441.54	0.95	0.00	-2.08
2,592.00	26.30	226.90	2,496.68	-337.94	-347.72	484.06	0.96	-0.74	1.37
2,688.00	25.80	226.90	2,582.93	-366.75	-378.51	526.09	0.52	-0.52	0.00
2,783.00	25.00	222.00	2,668.76	-395.79	-407.04	566.78	2.37	-0.84	-5.16
2,878.00	23.80	221.10	2,755.27	-425.16	-433.07	606.02	1.32	-1.26	-0.95
2,974.00	26.30	222.30	2,842.23	-455.49	-460.12	646.66	2.66	2.60	1.25
3,069.00	25.90	220.90	2,927.55	-486.74	-487.87	688.45	0.77	-0.42	-1.47
3,165.00	25.50	220.40	3,014.05	-518.32	-514.99	730.06	0.47	-0.42	-0.52
3,260.00	24.20	220.70	3,100.25	-548.66	-540.95	769.96	1.37	-1.37	0.32
3,355.00	22.90	221.50	3,187.34	-577.27	-565.89	807.90	1.41	-1.37	0.84
3,451.00	24.10	219.20	3,275.38	-606.45	-590.66	846.15	1.57	1.25	-2.40
3,546.00	22.10	220.00	3,362.75	-635.17	-614.41	883.37	2.13	-2.11	0.84
3,641.00	23.10	219.80	3,450.46	-663.18	-637.82	919.84	1.06	1.05	-0.21
3,737.00	22.10	220.30	3,539.09	-691.42	-661.56	956.70	1.06	-1.04	0.52
3,832.00	22.50	225.90	3,626.99	-717.70	-686.17	992.71	2.28	0.42	5.89
3,928.00	23.30	226.50	3,715.42	-743.55	-713.14	1,029.98	0.87	0.83	0.63
4,023.00	20.90	222.50	3,803.44	-768.99	-738.22	1,065.67	2.98	-2.53	-4.21
4,119.00	21.00	226.80	3,893.10	-793.39	-762.33	1,099.95	1.60	0.10	4.48
4,214.00	19.20	227.70	3,982.31	-815.56	-786.29	1,132.49	1.92	-1.89	0.95
4,310.00	16.90	225.60	4,073.58	-835.95	-807.94	1,162.14	2.49	-2.40	-2.19
4,405.00	14.10	223.30	4,165.12	-854.03	-825.75	1,187.51	3.02	-2.95	-2.42
4,500.00	12.30	222.50	4,257.61	-869.92	-840.52	1,209.20	1.90	-1.89	-0.84
4,596.00	11.20	222.00	4,351.59	-884.38	-853.67	1,228.75	1.15	-1.15	-0.52
4,691.00	9.60	209.40	4,445.04	-898.14	-863.73	1,245.69	2.92	-1.68	-13.26
4,787.00	8.40	204.90	4,539.86	-911.48	-870.61	1,260.18	1.45	-1.25	-4.69
4,882.00	6.70	192.20	4,634.04	-923.19	-874.71	1,271.58	2.50	-1.79	-13.37
4,977.00	5.00	179.20	4,728.54	-932.75	-875.82	1,279.38	2.26	-1.79	-13.68

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Survey										
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5,073.00	3.30	167.80	4,824.29	-939.63	-875.18	1,284.02	1.96	-1.77	-11.88	
5,168.00	3.80	173.10	4,919.11	-945.43	-874.22	1,287.66	0.63	0.53	5.58	
5,264.00	2.50	163.60	5,014.96	-950.60	-873.25	1,290.81	1.45	-1.35	-9.90	
5,359.00	2.50	182.60	5,109.87	-954.65	-872.76	1,293.47	0.87	0.00	20.00	
5,454.00	2.50	241.70	5,204.80	-957.71	-874.68	1,297.02	2.60	0.00	62.21	
5,550.00	1.10	329.90	5,300.76	-957.90	-876.98	1,298.72	2.81	-1.46	91.88	
5,644.00	0.70	314.30	5,394.75	-956.72	-877.85	1,298.43	0.50	-0.43	-16.60	
5,739.00	1.10	264.50	5,489.74	-956.40	-879.17	1,299.09	0.88	0.42	-52.42	
5,835.00	1.80	334.00	5,585.71	-955.14	-880.75	1,299.22	1.82	0.73	72.40	
5,930.00	1.10	294.40	5,680.68	-953.42	-882.23	1,298.96	1.24	-0.74	-41.68	
6,025.00	0.50	273.60	5,775.67	-953.02	-883.48	1,299.50	0.69	-0.63	-21.89	
6,121.00	1.20	243.30	5,871.66	-953.44	-884.79	1,300.70	0.84	0.73	-31.56	
6,216.00	0.40	86.00	5,966.66	-953.86	-885.35	1,301.39	1.66	-0.84	-165.58	
6,311.00	0.50	113.40	6,061.65	-954.01	-884.64	1,301.02	0.25	0.11	28.84	
6,407.00	0.60	130.80	6,157.65	-954.50	-883.87	1,300.86	0.20	0.10	18.13	
6,502.00	0.70	178.60	6,252.64	-955.41	-883.48	1,301.27	0.56	0.11	50.32	
6,598.00	2.00	186.80	6,348.62	-957.66	-883.67	1,303.05	1.37	1.35	8.54	
6,693.00	1.30	68.10	6,443.59	-958.90	-882.86	1,303.43	3.01	-0.74	-124.95	
6,788.00	1.70	32.20	6,538.56	-957.31	-881.11	1,301.07	1.05	0.42	-37.79	
6,884.00	0.80	357.40	6,634.54	-955.43	-880.38	1,299.19	1.19	-0.94	-36.25	
6,979.00	0.80	96.70	6,729.54	-954.85	-879.75	1,298.34	1.28	0.00	104.53	
7,074.00	0.80	117.10	6,824.53	-955.23	-878.51	1,297.77	0.30	0.00	21.47	
7,169.00	1.70	109.70	6,919.50	-956.00	-876.59	1,297.05	0.96	0.95	-7.79	
7,264.00	1.10	135.70	7,014.48	-957.13	-874.62	1,296.56	0.90	-0.63	27.37	
7,359.00	0.60	120.10	7,109.46	-958.03	-873.56	1,296.50	0.58	-0.53	-16.42	
7,455.00	0.10	246.10	7,205.46	-958.32	-873.20	1,296.47	0.69	-0.52	131.25	
7,549.00	1.20	100.90	7,299.46	-958.54	-872.31	1,296.03	1.37	1.17	-154.47	
7,644.00	0.50	107.60	7,394.45	-958.85	-870.94	1,295.34	0.74	-0.74	7.05	
7,673.00	1.10	111.50	7,423.44	-958.99	-870.56	1,295.19	2.08	2.07	13.45	
7,720.00	1.10	111.50	7,470.43	-959.32	-869.72	1,294.86	0.00	0.00	0.00	

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
760.00	759.99	0.24	1.20	End of Gyro Surveys	
2,783.00	2,668.76	-395.79	-407.04	As of Aug 21	
5,359.00	5,109.87	-954.65	-872.76	As of Aug 22	
7,169.00	6,919.50	-956.00	-876.59	As of Aug 23	
7,720.00	7,470.43	-959.32	-869.72	Projected TD	

Checked By: _____ Approved By: _____ Date: _____