

Bill Barrett Corp.

Garfield County, Colorado [NAD83]

Kaufman 6 Pad

Kaufman 32A-24-692

Wellbore #1

Design: Wellbore #1

Standard Survey Report

07 October, 2011

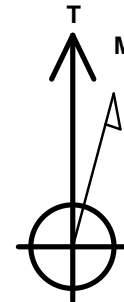
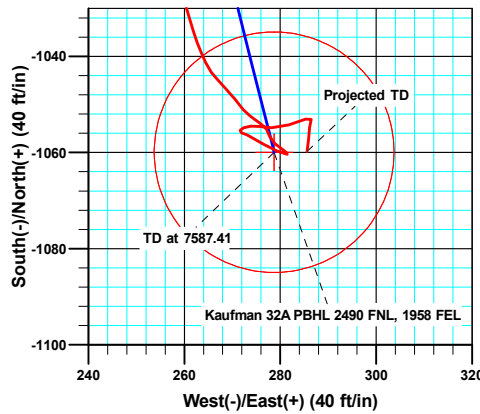
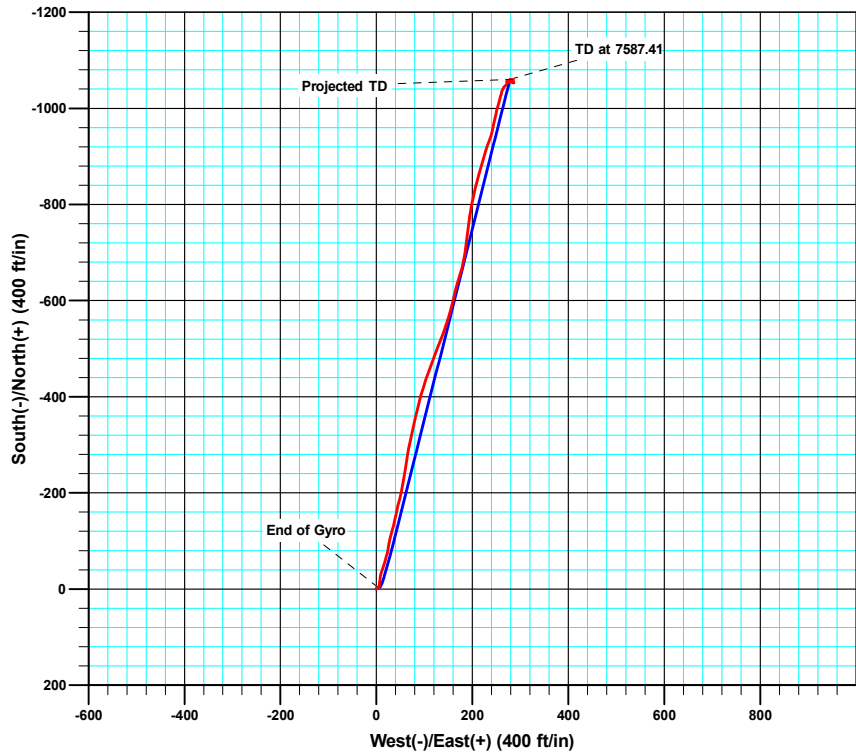
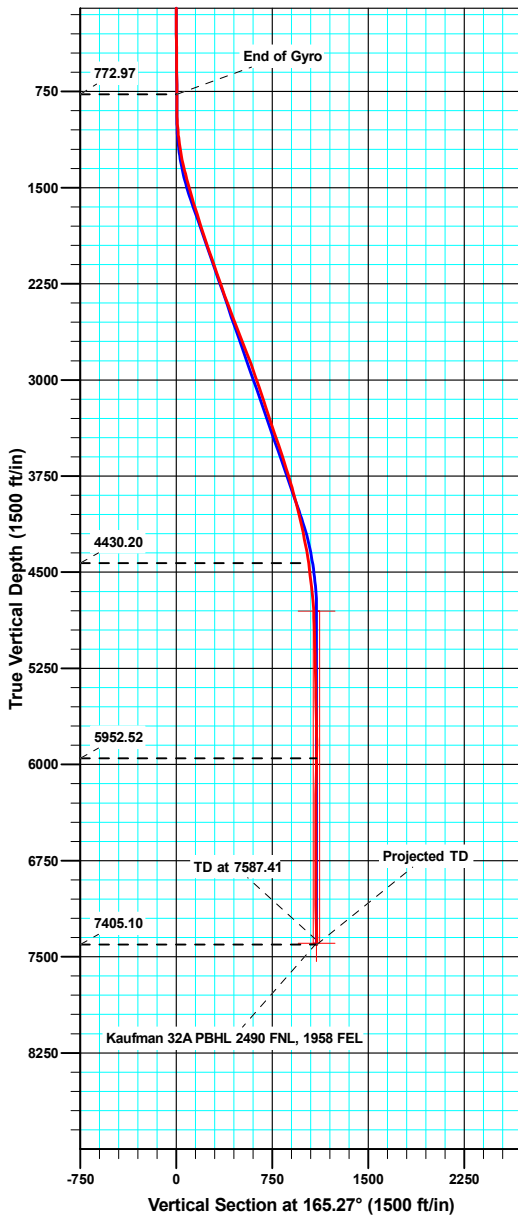


Well Details: Kaufman 32A-24-692



North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.00 0.00 1619786.96 2403616.65 39.516043 -107.614125

Ground Level: 5771.00



Azimuths to True North
 Magnetic North: 10.29°

Magnetic Field
 Strength: 52446.3snT
 Dip Angle: 65.87°
 Date: 06/02/2010
 Model: IGRF200510

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
772.97	773.00	0.93	101.75	-2.88	4.23	3.86	6.28	End of Gyro
4430.20	4590.00	8.30	166.00	-1002.26	252.80	1033.60	1039.70	As of Oct 5
5952.52	6115.00	2.50	298.10	-1059.64	279.40	1095.86	1109.24	As of Oct 6
7405.10	7568.00	1.20	186.70	-1059.78	285.64	1097.57	1141.84	Projected TD



Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Kaufman 32A-24-692
Project:	Garfield County, Colorado [NAD83]	TVD Reference:	WELL @ 5771.00ft (Original Well Elev)
Site:	Kaufman 6 Pad	MD Reference:	WELL @ 5771.00ft (Original Well Elev)
Well:	Kaufman 32A-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 6 Pad				
Site Position:		Northing:	1,619,793.95 usft	Latitude:	39.516058
From:	Lat/Long	Easting:	2,403,552.20 usft	Longitude:	-107.614354
Position Uncertainty:	0.00 ft	Slot Radius:	0.00 ft	Grid Convergence:	-1.33 °

Well	Kaufman 32A-24-692					
Well Position	+N/-S	0.00 ft	Northing:	1,619,786.96 usft	Latitude:	39.516043
	+E/-W	0.00 ft	Easting:	2,403,616.66 usft	Longitude:	-107.614125
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,771.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	06/02/10	10.29	65.87	52,446

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	165.27	

Survey Program	Date	10/07/11			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	758.00	Survey #1 (Wellbore #1)	MWD	MWD - Standard	
758.00	7,568.00	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	0.66	157.43	100.00	-0.53	0.22	0.57	0.66	0.66	0.00	
200.00	0.22	250.60	200.00	-1.13	0.26	1.16	0.71	-0.44	93.17	
300.00	0.50	114.07	299.99	-1.37	0.48	1.45	0.68	0.28	-136.53	
400.00	0.10	152.98	399.99	-1.62	0.92	1.80	0.43	-0.40	38.91	
500.00	0.50	78.51	499.99	-1.62	1.38	1.91	0.48	0.40	-74.47	
600.00	0.72	126.74	599.99	-1.90	2.31	2.43	0.54	0.22	48.23	
700.00	0.59	124.96	699.98	-2.58	3.24	3.31	0.13	-0.13	-1.78	
758.00	0.99	99.60	757.97	-2.83	3.98	3.75	0.90	0.69	-43.72	
773.00	0.93	101.75	772.97	-2.88	4.23	3.86	0.47	-0.40	14.33	

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Site:	Kaufman 6 Pad	MD Reference:	WELL @ 5771.00ft (Original Well Elev)
Well:	Kaufman 32A-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)
882.00	0.40	104.20	881.96	-3.15	5.46	4.44	0.49	-0.49	2.25
975.00	3.00	171.80	974.92	-5.64	6.12	7.01	3.09	2.80	72.69
1,067.00	5.30	175.40	1,066.67	-12.26	6.81	13.59	2.51	2.50	3.91
1,159.00	8.30	172.50	1,158.01	-23.08	8.01	24.36	3.28	3.26	-3.15
1,255.00	10.60	161.40	1,252.71	-38.32	11.74	40.05	3.05	2.40	-11.56
1,350.00	13.20	161.60	1,345.66	-56.90	17.95	59.59	2.74	2.74	0.21
1,445.00	15.60	169.80	1,437.68	-79.77	23.64	83.16	3.31	2.53	8.63
1,541.00	16.30	167.00	1,529.99	-105.60	28.95	109.49	1.08	0.73	-2.92
1,636.00	16.70	164.20	1,621.08	-131.72	35.67	136.46	0.94	0.42	-2.95
1,731.00	17.20	168.60	1,711.95	-158.63	42.16	164.13	1.45	0.53	4.63
1,826.00	17.80	165.60	1,802.56	-186.46	48.55	192.68	1.14	0.63	-3.16
1,922.00	18.50	170.30	1,893.79	-215.69	54.76	222.52	1.69	0.73	4.90
2,017.00	19.20	169.90	1,983.69	-245.93	60.04	253.11	0.75	0.74	-0.42
2,112.00	19.10	171.80	2,073.43	-276.69	65.00	284.12	0.66	-0.11	2.00
2,207.00	19.20	166.70	2,163.18	-307.28	70.81	315.18	1.76	0.11	-5.37
2,302.00	19.40	169.00	2,252.85	-337.97	77.41	346.54	0.83	0.21	2.42
2,398.00	20.40	166.20	2,343.11	-369.87	84.45	379.18	1.44	1.04	-2.92
2,493.00	21.10	164.70	2,431.95	-402.44	92.91	412.84	0.93	0.74	-1.58
2,588.00	20.70	160.40	2,520.71	-434.75	103.05	446.67	1.67	-0.42	-4.53
2,684.00	21.20	160.60	2,610.36	-467.11	114.51	480.88	0.53	0.52	0.21
2,779.00	21.60	158.40	2,698.81	-499.57	126.65	515.36	0.94	0.42	-2.32
2,875.00	20.90	159.00	2,788.28	-531.99	139.30	549.92	0.76	-0.73	0.63
2,970.00	20.70	163.00	2,877.10	-563.86	150.28	583.54	1.51	-0.21	4.21
3,065.00	19.20	167.40	2,966.40	-595.17	158.60	615.93	2.23	-1.58	4.63
3,161.00	19.00	164.80	3,057.11	-625.66	166.14	647.34	0.91	-0.21	-2.71
3,256.00	18.90	162.50	3,146.97	-655.25	174.82	678.17	0.79	-0.11	-2.42
3,351.00	17.80	169.60	3,237.15	-684.21	182.07	708.02	2.62	-1.16	7.47
3,446.00	19.00	173.00	3,327.29	-713.85	186.57	737.83	1.69	1.26	3.58
3,541.00	19.50	171.60	3,416.98	-744.88	190.77	768.91	0.72	0.53	-1.47
3,637.00	19.20	172.50	3,507.56	-776.38	195.18	800.49	0.44	-0.31	0.94
3,732.00	17.40	168.70	3,597.75	-805.80	200.00	830.17	2.27	-1.89	-4.00
3,827.00	17.30	166.30	3,688.43	-833.46	206.13	858.48	0.76	-0.11	-2.53
3,923.00	17.20	164.50	3,780.11	-861.00	213.30	886.94	0.57	-0.10	-1.88
4,018.00	15.10	164.30	3,871.36	-886.45	220.40	913.36	2.21	-2.21	-0.21
4,113.00	14.40	162.30	3,963.23	-909.62	227.34	937.53	0.91	-0.74	-2.11
4,208.00	13.40	159.10	4,055.45	-931.16	234.86	960.27	1.33	-1.05	-3.37
4,304.00	12.40	165.70	4,149.03	-951.54	241.38	981.64	1.85	-1.04	6.88
4,399.00	11.30	167.10	4,242.00	-970.50	245.97	1,001.14	1.20	-1.16	1.47
4,494.00	9.80	169.10	4,335.39	-987.51	249.58	1,018.51	1.63	-1.58	2.11
4,590.00	8.30	166.00	4,430.20	-1,002.26	252.80	1,033.60	1.64	-1.56	-3.23
4,685.00	6.90	163.40	4,524.36	-1,014.38	256.09	1,046.16	1.52	-1.47	-2.74
4,780.00	6.60	165.00	4,618.70	-1,025.12	259.14	1,057.32	0.37	-0.32	1.68
4,875.00	5.30	162.50	4,713.19	-1,034.58	261.87	1,067.16	1.40	-1.37	-2.63

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4,971.00	3.30	152.90	4,808.91	-1,041.27	264.46	1,074.29	2.21	-2.08	-10.00	
5,066.00	1.80	132.60	4,903.82	-1,044.71	266.80	1,078.22	1.82	-1.58	-21.37	
5,161.00	1.40	140.80	4,998.78	-1,046.62	268.64	1,080.53	0.48	-0.42	8.63	
5,257.00	2.20	138.90	5,094.73	-1,048.92	270.59	1,083.25	0.84	0.83	-1.98	
5,352.00	1.20	146.00	5,189.69	-1,051.12	272.34	1,085.82	1.07	-1.05	7.47	
5,448.00	1.20	121.40	5,285.67	-1,052.48	273.76	1,087.49	0.53	0.00	-25.63	
5,543.00	1.80	127.00	5,380.64	-1,053.89	275.80	1,089.38	0.65	0.63	5.89	
5,638.00	0.60	157.50	5,475.62	-1,055.25	277.19	1,091.05	1.39	-1.26	32.11	
5,734.00	1.20	154.60	5,571.60	-1,056.62	277.81	1,092.53	0.63	0.63	-3.02	
5,829.00	1.10	132.00	5,666.58	-1,058.13	278.91	1,094.27	0.49	-0.11	-23.79	
5,924.00	1.50	123.60	5,761.56	-1,059.43	280.63	1,095.96	0.47	0.42	-8.84	
6,020.00	0.40	222.20	5,857.55	-1,060.37	281.45	1,097.09	1.68	-1.15	102.71	
6,115.00	2.50	298.10	5,952.52	-1,059.64	279.40	1,095.86	2.56	2.21	79.89	
6,210.00	1.30	291.60	6,047.46	-1,058.27	276.57	1,093.81	1.28	-1.26	-6.84	
6,305.00	1.40	305.70	6,142.44	-1,057.20	274.62	1,092.28	0.36	0.11	14.84	
6,400.00	0.80	289.60	6,237.42	-1,056.30	273.06	1,091.01	0.70	-0.63	-16.95	
6,496.00	0.60	287.90	6,333.41	-1,055.92	271.95	1,090.36	0.21	-0.21	-1.77	
6,591.00	0.50	28.50	6,428.41	-1,055.40	271.67	1,089.79	0.89	-0.11	105.89	
6,686.00	0.70	72.10	6,523.40	-1,054.86	272.42	1,089.46	0.51	0.21	45.89	
6,782.00	1.10	78.50	6,619.39	-1,054.49	273.88	1,089.48	0.43	0.42	6.67	
6,877.00	1.20	105.00	6,714.37	-1,054.57	275.74	1,090.02	0.56	0.11	27.89	
6,972.00	1.80	91.80	6,809.34	-1,054.87	278.19	1,090.94	0.72	0.63	-13.89	
7,067.00	2.70	72.10	6,904.27	-1,054.23	281.81	1,091.24	1.24	0.95	-20.74	
7,162.00	1.80	69.60	6,999.19	-1,053.02	285.34	1,090.97	0.95	-0.95	-2.63	
7,258.00	0.80	206.10	7,095.18	-1,053.10	286.46	1,091.33	2.54	-1.04	142.19	
7,353.00	1.30	183.60	7,190.16	-1,054.77	286.10	1,092.85	0.67	0.53	-23.68	
7,449.00	1.50	184.90	7,286.14	-1,057.11	285.92	1,095.07	0.21	0.21	1.35	
7,521.00	1.20	186.70	7,358.12	-1,058.80	285.75	1,096.66	0.42	-0.42	2.50	
7,568.00	1.20	186.70	7,405.11	-1,059.78	285.64	1,097.57	0.00	0.00	0.00	

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
773.00	772.97	-2.88	4.23	End of Gyro	
4,590.00	4,430.20	-1,002.26	252.80	As of Oct 5	
6,115.00	5,952.52	-1,059.64	279.40	As of Oct 6	
7,568.00	7,405.11	-1,059.78	285.64	Projected TD	

Checked By: _____ Approved By: _____ Date: _____