

Bill Barrett Corp. (II)

Garfield County, Colorado [NAD83]

Werner Pad

Werner 34A-23-692

Wellbore #1

Design: Wellbore #1

Standard Survey Report

28 December, 2011

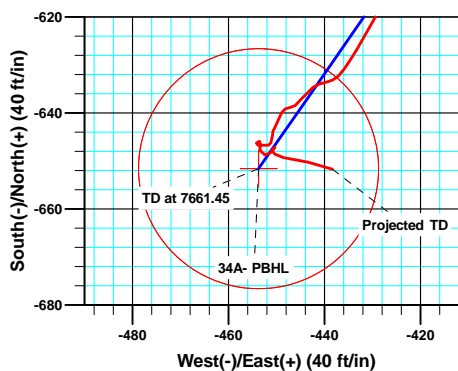
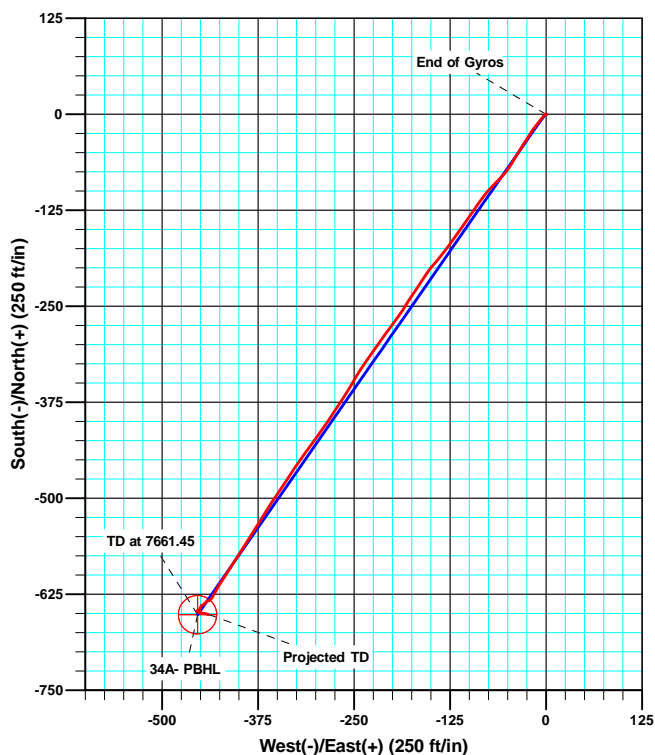
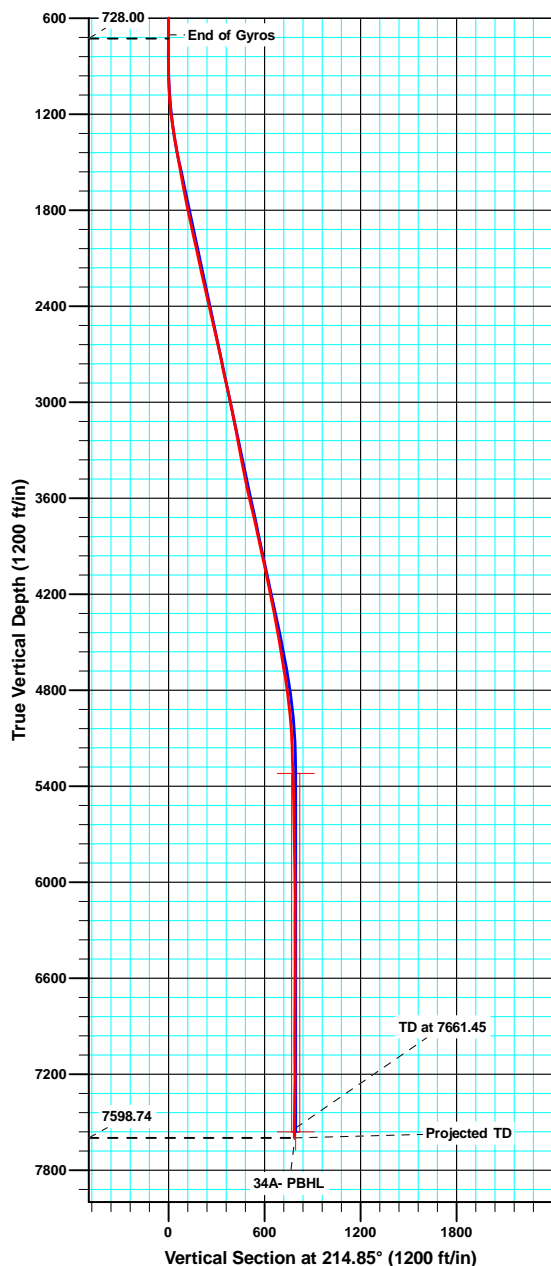


WELL DETAILS: Werner 34A-23-692

US State Plane 1983 North American Datum 1983 Colorado Central Zone

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1616816.96	2398995.71	39° 30' 27.34 N	107° 37' 48.91 W

Ground Level: 5943.00 KB: 23'



Azimuths to True North
Magnetic North: 10.28°

Magnetic Field
Strength: 52372.7snT
Dip Angle: 65.84°
Date: 10/12/2010
Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
728.00	728.00	0.140	315.93	0.00	0.04	-0.03	2.40	End of Gyros
7598.74	7675.00	1.700	105.70	-651.71	-438.28	785.27	824.17	Projected TD



Sharewell

Survey Report

Company:	Bill Barrett Corp. (II)	Local Co-ordinate Reference:	Well Werner 34A-23-692
Project:	Garfield County, Colorado [NAD83]	TVD Reference:	GL @ 5943.00ft (Original Well Elev)
Site:	Werner Pad	MD Reference:	GL @ 5943.00ft (Original Well Elev)
Well:	Werner 34A-23-692	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	Werner Pad				
Site Position:		Northing:	1,616,752.90 usft	Latitude:	39° 30' 26.71 N
From:	Lat/Long	Easting:	2,398,994.50 usft	Longitude:	107° 37' 48.91 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.34 °

Well		Werner 34A-23-692				
Well Position	+N/-S	0.00 ft	Northing:	1,616,816.96 usft	Latitude:	39° 30' 27.34 N
	+E/-W	0.00 ft	Easting:	2,398,995.72 usft	Longitude:	107° 37' 48.91 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,943.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/12/2010	10.28	65.84	52,373

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 (°)	
	7,560.00	0.00	0.00	214.85	

Survey Program	Date	12/28/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
50.00	728.00	Gyro Surveys (Wellbore #1)	MWD	MWD - Standard	
854.00	7,675.00	MWD (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	0.260	171.54	50.00	-0.11	0.02	0.08	0.52	0.52	0.00	
100.00	0.270	291.45	100.00	-0.18	-0.08	0.19	0.92	0.02	239.82	
150.00	0.190	42.84	150.00	-0.08	-0.13	0.14	0.77	-0.16	222.78	
200.00	0.270	217.53	200.00	-0.11	-0.14	0.17	0.92	0.16	349.38	
250.00	0.200	2.82	250.00	-0.12	-0.21	0.22	0.90	-0.14	290.58	
300.00	0.240	168.53	300.00	-0.13	-0.19	0.22	0.87	0.08	331.42	
350.00	0.200	348.54	350.00	-0.15	-0.18	0.23	0.88	-0.08	-359.98	
400.00	0.340	35.72	400.00	0.06	-0.11	0.02	0.50	0.28	94.36	
450.00	0.240	130.73	450.00	0.11	0.05	-0.12	0.87	-0.20	190.02	

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Site:	Werner Pad	MD Reference:	GL @ 5943.00ft (Original Well Elev)
Well:	Werner 34A-23-692	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)
500.00	0.070	178.86	500.00	0.01	0.13	-0.08	0.40	-0.34	96.26
550.00	0.130	262.16	550.00	-0.03	0.08	-0.02	0.28	0.12	166.60
600.00	0.170	57.42	600.00	0.00	0.08	-0.05	0.59	0.08	310.52
650.00	0.070	203.65	650.00	0.02	0.13	-0.09	0.46	-0.20	292.46
700.00	0.080	259.88	700.00	-0.02	0.09	-0.03	0.14	0.02	112.46
728.00	0.140	315.93	728.00	0.00	0.04	-0.03	0.41	0.21	200.18
854.00	0.300	2.60	854.00	0.44	-0.05	-0.34	0.18	0.13	37.04
946.00	0.600	192.80	946.00	0.21	-0.15	-0.09	0.97	0.33	-184.57
1,038.00	2.600	235.10	1,037.96	-1.45	-1.96	2.31	2.38	2.17	45.98
1,131.00	4.900	216.70	1,130.75	-5.84	-6.07	8.26	2.76	2.47	-19.78
1,226.00	7.500	219.50	1,225.19	-13.88	-12.44	18.50	2.75	2.74	2.95
1,321.00	9.800	211.70	1,319.11	-25.55	-20.63	32.75	2.71	2.42	-8.21
1,416.00	9.800	213.10	1,412.72	-39.20	-29.29	48.91	0.25	0.00	1.47
1,511.00	9.100	210.80	1,506.43	-52.42	-37.56	64.48	0.84	-0.74	-2.42
1,607.00	11.100	212.40	1,600.94	-66.75	-46.40	81.29	2.10	2.08	1.67
1,702.00	11.100	223.50	1,694.17	-81.10	-57.59	99.47	2.25	0.00	11.68
1,797.00	11.500	224.50	1,787.33	-94.49	-70.53	117.85	0.47	0.42	1.05
1,892.00	12.300	216.40	1,880.30	-109.39	-83.17	137.30	1.95	0.84	-8.53
1,987.00	13.700	214.00	1,972.86	-126.86	-95.46	158.66	1.58	1.47	-2.53
2,082.00	11.800	216.60	2,065.51	-143.99	-107.55	179.62	2.09	-2.00	2.74
2,177.00	12.000	212.30	2,158.47	-160.14	-118.62	199.20	0.96	0.21	-4.53
2,272.00	12.300	219.90	2,251.35	-176.25	-130.39	219.15	1.71	0.32	8.00
2,367.00	12.600	220.90	2,344.12	-191.84	-143.66	239.53	0.39	0.32	1.05
2,462.00	13.000	212.90	2,436.76	-208.65	-156.25	260.51	1.91	0.42	-8.42
2,557.00	13.800	214.40	2,529.18	-226.97	-168.46	282.52	0.92	0.84	1.58
2,652.00	13.100	211.70	2,621.57	-245.48	-180.51	304.60	0.99	-0.74	-2.84
2,747.00	11.400	214.60	2,714.41	-262.37	-191.50	324.74	1.90	-1.79	3.05
2,842.00	11.300	217.80	2,807.55	-277.45	-202.54	343.43	0.67	-0.11	3.37
2,937.00	12.300	215.60	2,900.54	-293.03	-214.14	362.84	1.15	1.05	-2.32
3,033.00	13.300	214.40	2,994.15	-310.46	-226.33	384.11	1.08	1.04	-1.25
3,128.00	11.300	214.80	3,086.97	-327.12	-237.81	404.34	2.11	-2.11	0.42
3,223.00	10.500	210.50	3,180.26	-342.22	-247.52	422.28	1.20	-0.84	-4.53
3,318.00	10.400	211.00	3,273.68	-357.03	-256.33	439.47	0.14	-0.11	0.53
3,413.00	10.800	213.20	3,367.06	-371.83	-265.62	456.92	0.60	0.42	2.32
3,508.00	11.600	213.90	3,460.25	-387.20	-275.82	475.37	0.85	0.84	0.74
3,603.00	12.000	213.50	3,553.24	-403.37	-286.60	494.79	0.43	0.42	-0.42
3,699.00	13.700	217.10	3,646.83	-420.76	-298.96	516.13	1.96	1.77	3.75
3,794.00	12.900	215.10	3,739.29	-438.41	-311.85	537.98	0.97	-0.84	-2.11
3,889.00	11.200	214.60	3,832.19	-454.68	-323.19	557.81	1.79	-1.79	-0.53
3,985.00	12.500	213.00	3,926.14	-471.07	-334.14	577.52	1.40	1.35	-1.67
4,080.00	12.600	213.90	4,018.87	-488.29	-345.52	598.15	0.23	0.11	0.95
4,175.00	11.800	214.30	4,111.73	-504.91	-356.77	618.23	0.85	-0.84	0.42
4,271.00	11.800	210.30	4,205.70	-521.50	-367.25	637.83	0.85	0.00	-4.17

Sharewell

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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)	
4,366.00	10.700	213.50	4,298.87	-537.24	-377.02	656.33	1.33	-1.16	3.37	
4,461.00	10.100	213.20	4,392.31	-551.56	-386.45	673.47	0.63	-0.63	-0.32	
4,557.00	9.600	211.30	4,486.90	-565.45	-395.22	689.87	0.62	-0.52	-1.98	
4,652.00	9.600	212.10	4,580.57	-578.93	-403.54	705.69	0.14	0.00	0.84	
4,747.00	9.600	213.10	4,674.24	-592.27	-412.08	721.52	0.18	0.00	1.05	
4,842.00	8.300	213.90	4,768.08	-604.60	-420.23	736.30	1.37	-1.37	0.84	
4,938.00	6.300	208.70	4,863.30	-614.97	-426.63	748.46	2.19	-2.08	-5.42	
5,033.00	6.300	209.60	4,957.72	-624.08	-431.70	758.84	0.10	0.00	0.95	
5,128.00	3.400	215.80	5,052.37	-630.90	-435.93	766.85	3.10	-3.05	6.53	
5,224.00	2.200	261.20	5,148.27	-633.49	-439.41	770.97	2.53	-1.25	47.29	
5,319.00	1.800	232.90	5,243.21	-634.67	-442.41	773.64	1.11	-0.42	-29.79	
5,414.00	2.500	218.60	5,338.14	-637.18	-444.89	777.13	0.92	0.74	-15.05	
5,510.00	1.200	270.60	5,434.10	-638.81	-447.20	779.78	2.08	-1.35	54.17	
5,605.00	1.700	211.70	5,529.07	-640.00	-448.94	781.75	1.57	0.53	-62.00	
5,700.00	1.100	194.70	5,624.04	-642.08	-449.91	784.01	0.76	-0.63	-17.89	
5,796.00	0.500	228.40	5,720.03	-643.25	-450.45	785.29	0.77	-0.63	35.10	
5,891.00	1.300	183.40	5,815.02	-644.60	-450.83	786.61	1.06	0.84	-47.37	
5,984.00	0.800	205.50	5,908.01	-646.24	-451.17	788.15	0.68	-0.54	23.76	
6,082.00	1.100	278.50	6,006.00	-646.72	-452.40	789.24	1.18	0.31	74.49	
6,177.00	0.700	262.40	6,100.98	-646.66	-453.87	790.04	0.49	-0.42	-16.95	
6,272.00	0.700	28.50	6,195.98	-646.23	-454.17	789.85	1.31	0.00	132.74	
6,367.00	0.500	109.40	6,290.98	-645.85	-453.50	789.17	0.84	-0.21	85.16	
6,462.00	0.700	207.30	6,385.97	-646.51	-453.38	789.63	0.96	0.21	103.05	
6,557.00	0.900	165.90	6,480.97	-647.75	-453.46	790.70	0.63	0.21	-43.58	
6,653.00	1.100	106.60	6,576.95	-648.74	-452.40	790.90	1.05	0.21	-61.77	
6,748.00	1.000	22.20	6,671.94	-648.23	-451.21	789.81	1.49	-0.11	-88.84	
6,843.00	0.500	76.70	6,766.93	-647.37	-450.49	788.69	0.86	-0.53	57.37	
6,938.00	0.300	306.50	6,861.93	-647.13	-450.29	788.37	0.77	-0.21	-137.05	
7,034.00	0.400	187.00	6,957.93	-647.31	-450.53	788.66	0.63	0.10	-124.48	
7,129.00	0.500	226.50	7,052.93	-647.93	-450.87	789.36	0.34	0.11	41.58	
7,224.00	1.100	111.40	7,147.92	-648.54	-450.32	789.56	1.46	0.63	-121.16	
7,319.00	1.200	112.20	7,242.90	-649.25	-448.55	789.13	0.11	0.11	0.84	
7,415.00	1.500	91.60	7,338.88	-649.67	-446.37	788.22	0.59	0.31	-21.46	
7,510.00	2.200	107.00	7,433.83	-650.24	-443.38	786.98	0.90	0.74	16.21	
7,605.00	1.700	105.70	7,528.77	-651.15	-440.28	785.96	0.53	-0.53	-1.37	
7,675.00	1.700	105.70	7,598.74	-651.71	-438.28	785.27	0.00	0.00	0.00	

Sharewell
Survey Report

Company:	Bill Barrett Corp. (II)	Local Co-ordinate Reference:	Well Werner 34A-23-692
Project:	Garfield County, Colorado [NAD83]	TVD Reference:	GL @ 5943.00ft (Original Well Elev)
Site:	Werner Pad	MD Reference:	GL @ 5943.00ft (Original Well Elev)
Well:	Werner 34A-23-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass VM

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
728.00	728.00	0.00	0.04	End of Gyros
7,675.00	7,598.74	-651.71	-438.28	Projected TD

Checked By: _____	Approved By: _____	Date: _____
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