

Bill Barrett Corp.

Garfield Co., CO (NAD83)

Epperly 23-692 Pad (Sec.23-T6S-R92W)

Epperly 23B-23-692

Wellbore #1

Design: Wellbore #1

Standard Survey Report

18 April, 2012



Project: Garfield Co., CO (NAD83)
Site: Epperly 23-692 Pad (Sec.23-T6S-R92W)
Well: Epperly 23B-23-692
Wellbore: Wellbore #1
Design: Wellbore #1
Latitude: 39° 30' 42.53 N
Longitude: 107° 38' 26.17 W
Ground Level: 5854.01
WELL @ 5876.01ft



PROJECT DETAILS: Garfield Co., CO (NAD83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Epperly 23B-23-692, True North
Vertical (TVD) Reference: WELL @ 5876.01ft
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: WELL @ 5876.01ft
Calculation Method: Minimum Curvature

WELL DETAILS: Epperly 23B-23-692

+N/-S	+E/-W	Northing	Ground Level: Easting	5854.01	Latitude	Longitude	Slot
0.00	0.00	1618421.93	2396112.43		39° 30' 42.53 N	107° 38' 26.17 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

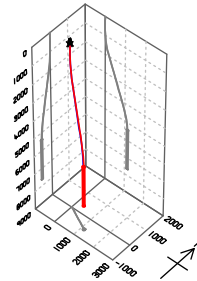
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Epperly 23B-23-692 Tgt	5400.01	-561.63	1134.22	1617833.74	2397233.10	39° 30' 36.98 N	107° 38' 11.70 W	Circle (Radius: 50.00)

ANNOTATIONS

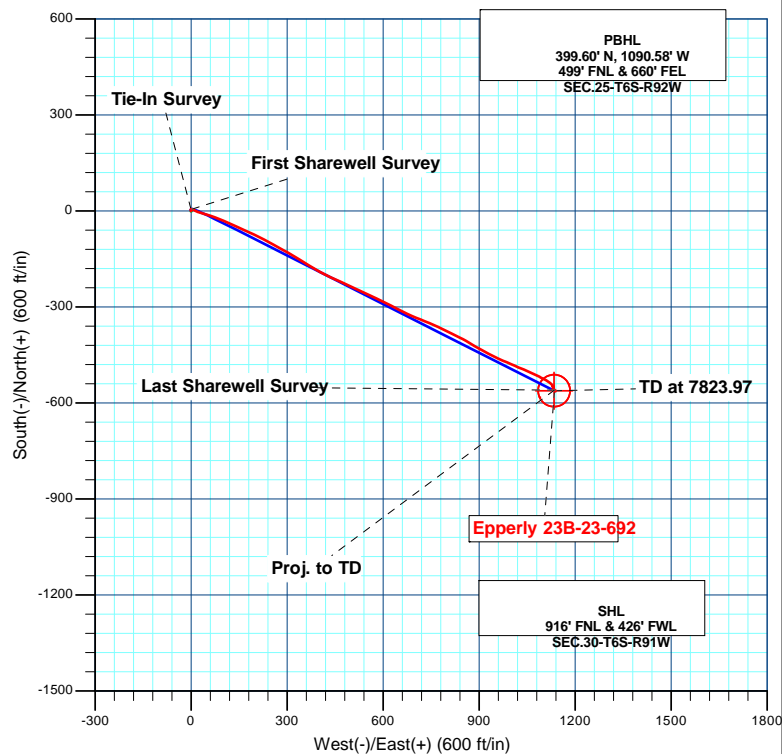
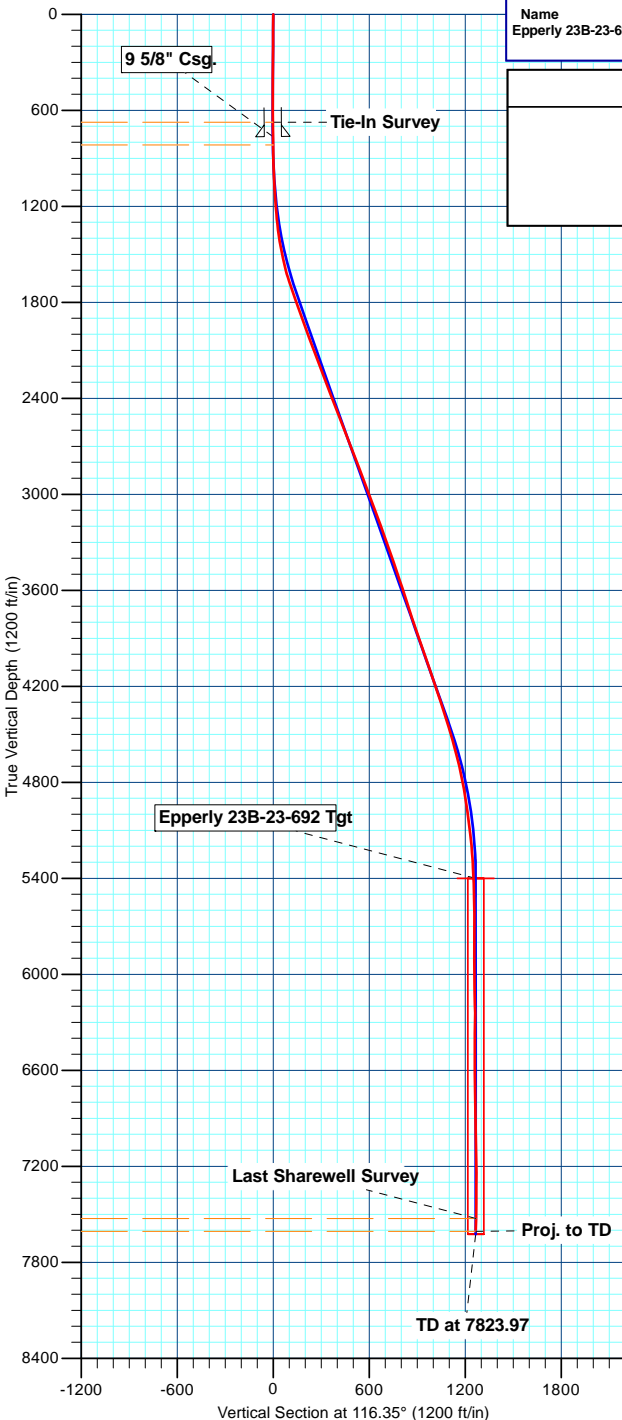
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSDeparture	Annotation
674.97	675.00	0.770	63.00	5.14	-0.42	-2.66	6.23 Tie-In Survey
816.95	817.00	1.200	75.30	5.95	1.87	-0.97	8.67 First Sharewell Survey
7526.83	7726.02	1.200	273.40	-559.85	1137.02	1267.37	1303.94 Last Sharewell Survey
7607.81	7807.02	1.200	273.40	-559.75	1135.33	1265.81	1305.63 Proj. to TD

FORMATION TOP DETAILS

No formation data is available



Azimuths to True North
Magnetic North: 10.13°
Magnetic Field
Strength: 52254.6snT
Dip Angle: 65.80°
Date: 12/17/2011
Model: IGRF2010



Design: Wellbore #1 (Epperly 23B-23-692/Wellbore #1)

Created By: Bret Wolford Date: 10:34, April 18 2012

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Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Epperly 23B-23-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5876.01ft
Site:	Epperly 23-692 Pad (Sec.23-T6S-R92W)	MD Reference:	WELL @ 5876.01ft
Well:	Epperly 23B-23-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

Project	Garfield Co., CO (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Epperly 23-692 Pad (Sec.23-T6S-R92W)				
Site Position:		Northing:	1,618,438.20 usft	Latitude:	39° 30' 42.69 N
From:	Lat/Long	Easting:	2,396,102.66 usft	Longitude:	107° 38' 26.30 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.35 °

Well		Epperly 23B-23-692				
Well Position	+N/-S	0.00 ft	Northing:	1,618,421.93 usft	Latitude:	39° 30' 42.53 N
	+E/-W	0.00 ft	Easting:	2,396,112.44 usft	Longitude:	107° 38' 26.17 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,854.01 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/17/2011	10.13	65.80	52,255

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	116.35	

Survey Program	Date	4/18/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	675.00	Survey #1 (Wellbore #1)	NS-GYRO-MS	North sensing gyrocompassing m/s	
817.00	7,807.02	Survey #2 (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	
100.00	0.440	296.75	100.00	0.17	-0.34	-0.38	0.44	0.44	0.00	
200.00	0.530	323.12	200.00	0.72	-0.96	-1.18	0.24	0.09	26.37	
300.00	0.520	337.81	299.99	1.51	-1.41	-1.93	0.13	-0.01	14.69	
400.00	0.610	2.10	399.99	2.46	-1.56	-2.49	0.25	0.09	24.29	
500.00	0.610	11.11	499.98	3.51	-1.44	-2.85	0.10	0.00	9.01	
600.00	0.650	28.30	599.98	4.53	-1.07	-2.97	0.19	0.04	17.19	
675.00	0.770	63.00	674.97	5.14	-0.42	-2.66	0.58	0.16	46.27	
817.00	1.200	75.30	816.95	5.95	1.87	-0.97	0.34	0.30	8.66	
879.00	1.100	87.10	878.94	6.14	3.09	0.04	0.41	-0.16	19.03	

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Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Epperly 23B-23-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5876.01ft
Site:	Epperly 23-692 Pad (Sec.23-T6S-R92W)	MD Reference:	WELL @ 5876.01ft
Well:	Epperly 23B-23-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

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	2.600	133.10	969.89	4.78	5.47	2.78	2.20	1.65	50.55
1,062.00	2.700	108.60	1,061.80	2.66	9.05	6.93	1.23	0.11	-26.63
1,154.00	4.200	115.40	1,153.63	0.52	14.15	12.44	1.69	1.63	7.39
1,249.00	4.700	112.60	1,248.34	-2.46	20.88	19.81	0.57	0.53	-2.95
1,344.00	6.900	108.30	1,342.85	-5.75	29.89	29.34	2.36	2.32	-4.53
1,440.00	10.200	105.80	1,437.77	-9.88	43.55	43.41	3.46	3.44	-2.60
1,535.00	12.700	106.70	1,530.87	-15.17	61.65	61.98	2.64	2.63	0.95
1,630.00	15.700	114.00	1,622.97	-23.40	83.40	85.12	3.67	3.16	7.68
1,725.00	19.200	113.20	1,713.58	-34.79	109.51	113.57	3.69	3.68	-0.84
1,820.00	19.200	114.40	1,803.30	-47.39	138.09	144.78	0.42	0.00	1.26
1,915.00	19.600	114.30	1,892.90	-60.41	166.84	176.32	0.42	0.42	-0.11
2,011.00	20.700	115.00	1,983.03	-74.20	196.90	209.37	1.17	1.15	0.73
2,106.00	20.700	117.60	2,071.90	-89.08	226.99	242.94	0.97	0.00	2.74
2,201.00	20.700	118.60	2,160.76	-104.89	256.61	276.51	0.37	0.00	1.05
2,296.00	21.000	119.40	2,249.54	-121.29	286.19	310.28	0.44	0.32	0.84
2,391.00	21.100	119.50	2,338.20	-138.06	315.90	344.36	0.11	0.11	0.11
2,487.01	20.800	122.70	2,427.86	-155.78	345.28	378.55	1.23	-0.31	3.33
2,582.01	21.700	121.10	2,516.40	-173.97	374.52	412.82	1.13	0.95	-1.68
2,677.01	21.900	118.70	2,604.61	-191.55	405.10	448.02	0.96	0.21	-2.53
2,772.01	20.700	115.00	2,693.12	-207.15	435.86	482.52	1.90	-1.26	-3.89
2,867.01	20.600	114.80	2,782.02	-221.26	466.24	516.01	0.13	-0.11	-0.21
2,963.01	21.400	114.90	2,871.64	-235.72	497.46	550.40	0.83	0.83	0.10
3,058.01	19.900	113.60	2,960.54	-249.49	528.00	583.88	1.65	-1.58	-1.37
3,154.01	20.100	115.80	3,050.75	-263.21	557.82	616.69	0.81	0.21	2.29
3,249.01	20.000	115.70	3,139.99	-277.36	587.16	649.26	0.11	-0.11	-0.11
3,344.01	20.300	116.10	3,229.18	-291.65	616.60	681.98	0.35	0.32	0.42
3,440.01	20.000	118.10	3,319.30	-306.71	646.03	715.05	0.78	-0.31	2.08
3,535.01	18.800	115.30	3,408.91	-320.91	674.21	746.59	1.60	-1.26	-2.95
3,630.01	19.100	111.70	3,498.76	-333.20	702.49	777.39	1.27	0.32	-3.79
3,726.01	18.000	112.80	3,589.78	-344.75	730.76	807.85	1.20	-1.15	1.15
3,821.01	17.800	112.70	3,680.18	-356.04	757.68	836.99	0.21	-0.21	-0.11
3,916.01	18.300	117.20	3,770.51	-368.47	784.35	866.40	1.56	0.53	4.74
4,011.01	18.800	115.00	3,860.57	-381.75	811.49	896.61	0.91	0.53	-2.32
4,106.01	20.100	117.00	3,950.15	-395.63	839.91	928.24	1.54	1.37	2.11
4,202.01	18.500	121.50	4,040.76	-411.08	867.59	959.91	2.27	-1.67	4.69
4,297.01	18.900	119.50	4,130.74	-426.53	893.84	990.28	0.80	0.42	-2.11
4,392.01	18.800	117.90	4,220.65	-441.27	920.76	1,020.95	0.55	-0.11	-1.68
4,487.01	17.900	118.40	4,310.82	-455.38	947.13	1,050.84	0.96	-0.95	0.53
4,583.01	17.900	111.30	4,402.18	-467.76	973.85	1,080.28	2.27	0.00	-7.40
4,678.01	16.200	113.80	4,493.00	-478.41	999.58	1,108.07	1.95	-1.79	2.63
4,773.01	14.900	112.50	4,584.52	-488.43	1,022.99	1,133.49	1.42	-1.37	-1.37
4,868.01	13.200	113.50	4,676.68	-497.43	1,044.23	1,156.52	1.81	-1.79	1.05
4,964.01	12.200	115.30	4,770.33	-506.14	1,063.45	1,177.61	1.12	-1.04	1.87

Sharewell

Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Epperly 23B-23-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5876.01ft
Site:	Epperly 23-692 Pad (Sec.23-T6S-R92W)	MD Reference:	WELL @ 5876.01ft
Well:	Epperly 23B-23-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

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)	
5,059.01	9.800	115.70	4,863.58	-513.94	1,079.81	1,195.73	2.53	-2.53	0.42	
5,154.01	7.400	118.90	4,957.50	-520.40	1,092.45	1,209.93	2.58	-2.53	3.37	
5,250.01	7.800	115.00	5,052.66	-526.14	1,103.77	1,222.62	0.68	0.42	-4.06	
5,345.01	6.400	126.00	5,146.94	-531.98	1,113.90	1,234.28	2.05	-1.47	11.58	
5,440.01	4.500	124.00	5,241.50	-537.17	1,121.27	1,243.20	2.01	-2.00	-2.11	
5,536.01	2.800	147.60	5,337.31	-541.26	1,125.65	1,248.93	2.33	-1.77	24.58	
5,631.01	2.700	133.60	5,432.20	-544.76	1,128.51	1,253.06	0.71	-0.11	-14.74	
5,726.01	1.100	94.60	5,527.15	-546.38	1,131.04	1,256.04	2.07	-1.68	-41.05	
5,821.01	0.400	183.40	5,622.14	-546.78	1,131.93	1,257.02	1.22	-0.74	93.47	
5,916.01	1.400	208.10	5,717.13	-548.14	1,131.37	1,257.11	1.11	1.05	26.00	
6,012.01	0.200	60.20	5,813.12	-549.09	1,130.96	1,257.17	1.64	-1.25	-154.06	
6,107.01	0.200	311.40	5,908.12	-548.90	1,130.98	1,257.10	0.34	0.00	-114.53	
6,202.01	1.000	180.70	6,003.12	-549.62	1,130.85	1,257.30	1.20	0.84	-137.58	
6,298.01	1.100	146.60	6,099.10	-551.22	1,131.34	1,258.46	0.65	0.10	-35.52	
6,393.01	1.800	157.60	6,194.07	-553.36	1,132.41	1,260.37	0.79	0.74	11.58	
6,488.01	0.400	63.10	6,289.06	-554.59	1,133.28	1,261.69	1.97	-1.47	-99.47	
6,583.01	0.900	301.60	6,384.05	-554.05	1,132.94	1,261.14	1.22	0.53	-127.89	
6,679.01	1.000	199.90	6,480.04	-554.44	1,132.01	1,260.49	1.54	0.10	-105.94	
6,774.01	1.800	216.20	6,575.02	-556.43	1,130.85	1,260.32	0.93	0.84	17.16	
6,869.01	0.600	207.20	6,669.99	-558.07	1,129.74	1,260.06	1.27	-1.26	-9.47	
6,965.01	0.700	122.60	6,765.99	-558.84	1,130.00	1,260.64	0.91	0.10	-88.12	
7,060.01	1.100	128.80	6,860.98	-559.72	1,131.20	1,262.10	0.43	0.42	6.53	
7,155.01	2.200	114.90	6,955.94	-561.06	1,133.57	1,264.82	1.22	1.16	-14.63	
7,250.01	1.800	135.60	7,050.88	-562.89	1,136.26	1,268.05	0.86	-0.42	21.79	
7,345.01	1.100	55.70	7,145.86	-563.45	1,138.06	1,269.90	2.04	-0.74	-84.11	
7,440.02	0.300	1.00	7,240.85	-562.68	1,138.82	1,270.24	1.01	-0.84	-57.58	
7,536.02	0.900	337.70	7,336.84	-561.74	1,138.54	1,269.57	0.66	0.62	-24.27	
7,631.02	0.700	347.90	7,431.84	-560.48	1,138.13	1,268.65	0.26	-0.21	10.74	
7,726.02	1.200	273.40	7,526.83	-559.85	1,137.02	1,267.37	1.28	0.53	-78.42	
7,807.02	1.200	273.40	7,607.81	-559.75	1,135.33	1,265.81	0.00	0.00	0.00	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (ft)	Hole Diameter (ft)	
765.10	765.06	9 5/8" Csg.	0.80	1.02	

Sharewell

Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Epperly 23B-23-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5876.01ft
Site:	Epperly 23-692 Pad (Sec.23-T6S-R92W)	MD Reference:	WELL @ 5876.01ft
Well:	Epperly 23B-23-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
675.00	674.97	5.14	-0.42	Tie-In Survey
817.00	816.95	5.95	1.87	First Sharewell Survey
7,726.02	7,526.83	-559.85	1,137.02	Last Sharewell Survey
7,807.02	7,607.81	-559.75	1,135.33	Proj. to TD

Checked By: _____	Approved By: _____	Date: _____
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