

Bill Barrett Corp. (IV)

Garfield County, Colorado [NAD83]

MDP 13 Pad

Federal 32C-20-691

Wellbore #1

Design: Wellbore #1

Standard Survey Report

21 December, 2011

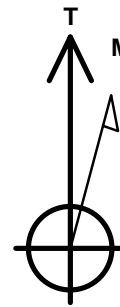
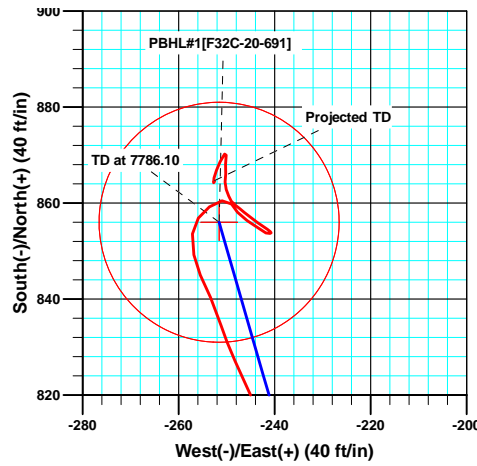
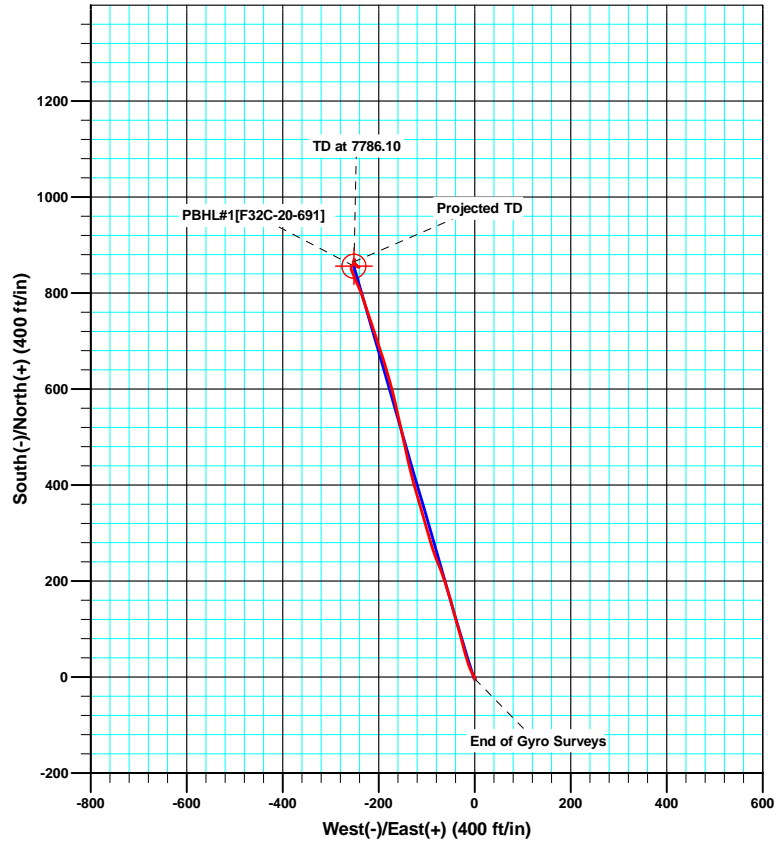
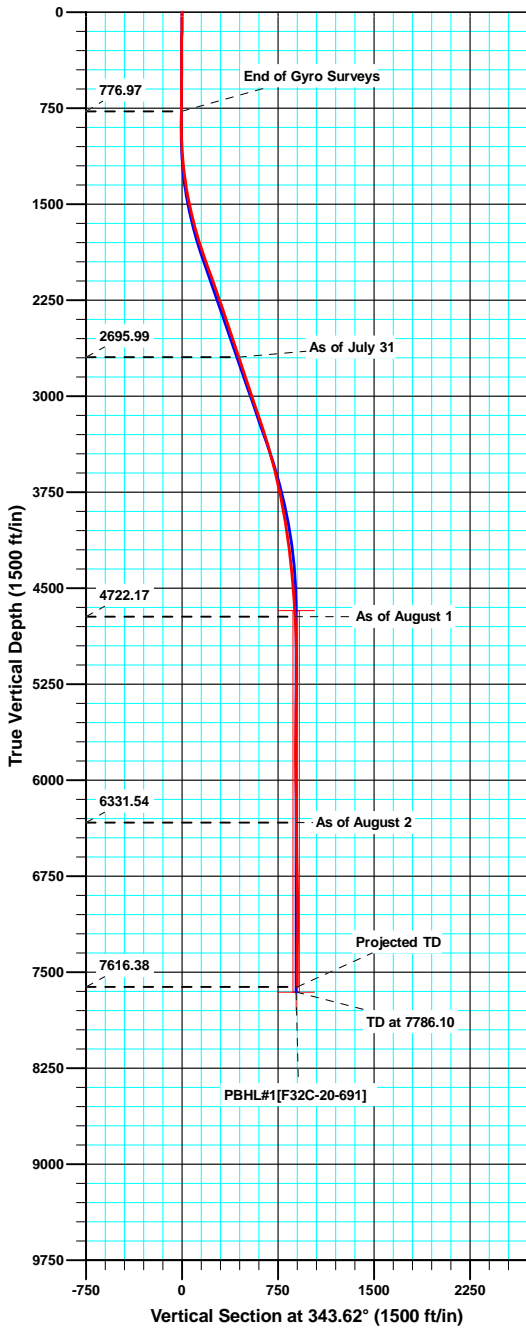
WELL DETAILS: Federal 32C-20-691



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

+N/-S +E/-W Northing Easting Latitude Longitude
 0.00 0.00 1618555.58 2414641.90 39° 30' 48.10 N 107° 34' 29.84 W

MDP 13 Pad



Azimuths to True North
 Magnetic North: 10.16°

Magnetic Field
 Strength: 52310.4snT
 Dip Angle: 65.83°
 Date: 6/16/2011
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
776.97	777.00	0.500	200.83	-3.97	0.79	-4.03	6.02	End of Gyro Surveys
2695.99	2762.00	18.200	344.60	423.69	-132.07	443.74	456.43	As of July 31
4722.17	4845.00	2.800	334.60	845.01	-255.47	882.76	896.25	As of August 1
6331.54	6455.00	0.800	308.50	859.52	-248.13	894.61	938.60	As of August 2
7616.38	7740.00	0.400	8.80	864.70	-252.51	900.81	958.99	Projected TD



Sharewell Survey Report

Company: Bill Barrett Corp. (IV)	Local Co-ordinate Reference: Well Federal 32C-20-691
Project: Garfield County, Colorado [NAD83]	TVD Reference: WELL @ 6452.00ft (Original Well Elev)
Site: MDP 13 Pad	MD Reference: WELL @ 6452.00ft (Original Well Elev)
Well: Federal 32C-20-691	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 MDP 13 Pad, Sec 20, T-6-S, R-91-W		
Site Position:	Northing: 1,618,553.18 usft	Latitude: 39° 30' 48.08 N
From: Lat/Long	Easting: 2,414,651.31 usft	Longitude: 107° 34' 29.72 W
Position Uncertainty: 0.00 ft	Slot Radius: 1.10 ft	Grid Convergence: -1.31 °

Well Federal 32C-20-691			
Well Position	+N/-S 0.00 ft	Northing: 1,618,555.58 usft	Latitude: 39° 30' 48.10 N
	+E/-W 0.00 ft	Easting: 2,414,641.90 usft	Longitude: 107° 34' 29.84 W
Position Uncertainty	0.00 ft	Wellhead Elevation: ft	Ground Level: 0.00 ft

Wellbore Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/16/2011	10.16	65.83	52,310

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	343.62	

Survey Program		Date 12/21/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
50.00	777.00	Gyro (Wellbore #1)	Gyro	Gyro
800.00	7,740.00	MWD Surveys (Wellbore #1)		

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	0.00
50.00	0.260	138.38	50.00	-0.08	0.08	-0.10	0.52	0.52	0.00	
100.00	0.510	170.46	100.00	-0.39	0.19	-0.43	0.64	0.50	64.16	
150.00	0.950	184.56	149.99	-1.02	0.19	-1.03	0.94	0.88	28.20	
200.00	0.540	216.01	199.99	-1.63	0.02	-1.57	1.13	-0.82	62.90	
250.00	0.320	242.30	249.99	-1.88	-0.24	-1.74	0.58	-0.44	52.58	
300.00	0.210	265.90	299.99	-1.95	-0.46	-1.74	0.31	-0.22	47.20	
350.00	0.310	288.67	349.99	-1.92	-0.68	-1.65	0.28	0.20	45.54	
400.00	0.360	58.13	399.99	-1.79	-0.67	-1.53	1.21	0.10	258.92	
450.00	0.430	100.30	449.99	-1.74	-0.35	-1.57	0.58	0.14	84.34	

Sharewell

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Site:	MDP 13 Pad	MD Reference:	WELL @ 6452.00ft (Original Well Elev)
Well:	Federal 32C-20-691	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	0.480	131.51	499.99	-1.91	-0.01	-1.83	0.50	0.10	62.42
550.00	0.530	126.95	549.98	-2.19	0.33	-2.19	0.13	0.10	-9.12
600.00	0.550	150.73	599.98	-2.54	0.63	-2.61	0.45	0.04	47.56
650.00	0.530	163.09	649.98	-2.97	0.82	-3.08	0.24	-0.04	24.72
700.00	0.460	175.77	699.98	-3.39	0.90	-3.51	0.26	-0.14	25.36
750.00	0.420	197.63	749.98	-3.77	0.86	-3.85	0.34	-0.08	43.72
777.00	0.500	200.83	776.97	-3.97	0.79	-4.03	0.31	0.30	11.85
800.00	0.500	200.83	799.97	-4.16	0.71	-4.19	0.00	0.00	0.00
839.00	0.500	200.83	838.97	-4.48	0.59	-4.46	0.00	0.00	0.00
901.00	0.300	205.00	900.97	-4.88	0.43	-4.80	0.33	-0.32	6.73
963.00	1.100	338.50	962.97	-4.47	0.14	-4.33	2.14	1.29	215.32
1,057.00	3.700	341.90	1,056.88	-0.75	-1.13	-0.40	2.77	2.77	3.62
1,152.00	5.300	331.80	1,151.58	6.04	-4.16	6.96	1.87	1.68	-10.63
1,246.00	6.400	336.30	1,245.09	14.66	-8.31	16.41	1.27	1.17	4.79
1,340.00	8.500	341.70	1,338.29	26.05	-12.60	28.55	2.35	2.23	5.74
1,435.00	10.800	341.90	1,431.94	41.18	-17.57	44.47	2.42	2.42	0.21
1,530.00	12.200	347.00	1,525.04	59.42	-22.60	63.38	1.82	1.47	5.37
1,625.00	13.900	344.30	1,617.58	80.19	-27.94	84.82	1.90	1.79	-2.84
1,720.00	15.600	343.90	1,709.45	103.45	-34.57	109.00	1.79	1.79	-0.42
1,814.00	17.500	345.30	1,799.55	129.27	-41.67	135.77	2.07	2.02	1.49
1,909.00	19.200	344.10	1,889.72	158.11	-49.57	165.67	1.83	1.79	-1.26
2,004.00	19.800	342.80	1,979.27	188.50	-58.61	197.38	0.78	0.63	-1.37
2,099.00	20.000	339.00	2,068.60	219.04	-69.19	229.66	1.38	0.21	-4.00
2,194.00	19.800	338.30	2,157.92	249.16	-80.96	261.88	0.33	-0.21	-0.74
2,289.00	18.900	344.20	2,247.57	278.92	-91.10	293.29	2.26	-0.95	6.21
2,383.00	18.400	343.40	2,336.63	307.78	-99.48	323.35	0.60	-0.53	-0.85
2,478.00	18.500	344.20	2,426.75	336.65	-107.87	353.41	0.29	0.11	0.84
2,573.00	18.700	343.40	2,516.79	365.75	-116.32	383.71	0.34	0.21	-0.84
2,668.00	18.600	345.60	2,606.80	395.02	-124.44	414.08	0.75	-0.11	2.32
2,762.00	18.200	344.60	2,695.99	423.69	-132.07	443.74	0.54	-0.43	-1.06
2,857.00	18.500	347.80	2,786.16	452.73	-139.19	473.61	1.11	0.32	3.37
2,951.00	18.500	347.40	2,875.31	481.86	-145.60	503.36	0.14	0.00	-0.43
3,046.00	18.500	347.60	2,965.40	511.29	-152.12	533.44	0.07	0.00	0.21
3,140.00	19.200	347.80	3,054.35	540.96	-158.59	563.73	0.75	0.74	0.21
3,235.00	18.900	346.50	3,144.15	571.19	-165.49	594.68	0.55	-0.32	-1.37
3,330.00	18.500	345.30	3,234.14	600.73	-172.90	625.11	0.58	-0.42	-1.26
3,425.00	16.900	344.80	3,324.64	628.64	-180.35	653.98	1.69	-1.68	-0.53
3,520.00	16.100	342.70	3,415.73	654.54	-187.89	680.96	1.05	-0.84	-2.21
3,614.00	14.500	341.20	3,506.39	678.13	-195.55	705.75	1.75	-1.70	-1.60
3,708.00	14.000	341.90	3,597.50	700.07	-202.88	728.87	0.56	-0.53	0.74
3,803.00	12.700	342.60	3,689.93	720.96	-209.57	750.80	1.38	-1.37	0.74
3,898.00	11.300	340.60	3,782.85	739.71	-215.79	770.54	1.54	-1.47	-2.11
3,993.00	11.100	340.20	3,876.04	757.09	-221.98	788.96	0.23	-0.21	-0.42

Sharewell

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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)	
4,088.00	9.700	341.50	3,969.48	773.28	-227.61	806.09	1.49	-1.47	1.37	
4,182.00	8.100	341.30	4,062.34	787.07	-232.25	820.62	1.70	-1.70	-0.21	
4,277.00	7.100	340.20	4,156.51	798.93	-236.38	833.17	1.06	-1.05	-1.16	
4,372.00	6.200	337.10	4,250.87	809.18	-240.37	844.13	1.02	-0.95	-3.26	
4,467.00	5.900	336.10	4,345.34	818.37	-244.34	854.06	0.33	-0.32	-1.05	
4,561.00	5.700	336.00	4,438.86	827.05	-248.20	863.48	0.21	-0.21	-0.11	
4,656.00	4.100	341.90	4,533.51	834.59	-251.17	871.55	1.76	-1.68	6.21	
4,750.00	3.400	336.30	4,627.31	840.34	-253.34	877.67	0.84	-0.74	-5.96	
4,845.00	2.800	334.60	4,722.17	845.01	-255.47	882.76	0.64	-0.63	-1.79	
4,940.00	2.600	350.10	4,817.06	849.23	-256.83	887.19	0.79	-0.21	16.32	
5,035.00	2.700	2.80	4,911.96	853.59	-257.09	891.45	0.63	0.11	13.37	
5,130.00	1.900	46.30	5,006.89	856.91	-255.85	894.28	1.96	-0.84	45.79	
5,225.00	2.000	43.20	5,101.84	859.21	-253.57	895.85	0.15	0.11	-3.26	
5,320.00	1.800	86.70	5,196.79	860.50	-250.95	896.35	1.49	-0.21	45.79	
5,415.00	1.100	149.80	5,291.76	859.80	-249.00	895.12	1.72	-0.74	66.42	
5,510.00	1.500	136.40	5,386.74	858.11	-247.68	893.13	0.53	0.42	-14.11	
5,605.00	1.700	128.30	5,481.70	856.34	-245.72	890.88	0.32	0.21	-8.53	
5,699.00	1.800	118.80	5,575.66	854.76	-243.33	888.69	0.33	0.11	-10.11	
5,794.00	0.400	138.00	5,670.64	853.80	-241.80	887.34	1.50	-1.47	20.21	
5,889.00	0.800	78.50	5,765.64	853.68	-240.93	886.98	0.73	0.42	-62.63	
5,983.00	1.700	300.50	5,859.62	854.52	-241.49	887.94	2.51	0.96	-146.81	
6,078.00	1.400	309.30	5,954.59	855.97	-243.60	889.93	0.40	-0.32	9.26	
6,173.00	1.000	304.80	6,049.57	857.18	-245.18	891.53	0.43	-0.42	-4.74	
6,266.00	0.800	312.80	6,142.56	858.09	-246.32	892.72	0.25	-0.22	8.60	
6,360.00	0.600	305.60	6,236.55	858.82	-247.20	893.67	0.23	-0.21	-7.66	
6,455.00	0.800	308.50	6,331.54	859.52	-248.13	894.61	0.21	0.21	3.05	
6,550.00	0.700	320.90	6,426.53	860.38	-249.01	895.69	0.20	-0.11	13.05	
6,644.00	0.800	343.70	6,520.53	861.46	-249.56	896.87	0.33	0.11	24.26	
6,739.00	1.000	337.30	6,615.51	862.86	-250.07	898.36	0.24	0.21	-6.74	
6,834.00	0.900	6.10	6,710.50	864.37	-250.31	899.87	0.51	-0.11	30.32	
6,929.00	1.200	3.10	6,805.49	866.10	-250.17	901.50	0.32	0.32	-3.16	
7,024.00	1.200	355.20	6,900.46	868.09	-250.20	903.41	0.17	0.00	-8.32	
7,119.00	1.100	13.40	6,995.45	869.97	-250.07	905.18	0.40	-0.11	19.16	
7,214.00	1.000	222.10	7,090.44	870.24	-250.42	905.54	2.14	-0.11	-159.26	
7,308.00	1.300	200.70	7,184.42	868.63	-251.35	904.26	0.55	0.32	-22.77	
7,403.00	1.100	205.50	7,279.40	866.80	-252.12	902.72	0.24	-0.21	5.05	
7,498.00	0.900	189.20	7,374.39	865.24	-252.63	901.37	0.36	-0.21	-17.16	
7,593.00	0.300	165.00	7,469.38	864.26	-252.69	900.44	0.67	-0.63	-25.47	
7,690.00	0.400	8.80	7,566.38	864.35	-252.57	900.50	0.71	0.10	-161.03	
7,740.00	0.400	8.80	7,616.38	864.70	-252.51	900.81	0.00	0.00	0.00	

Sharewell

Survey Report

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Well: Federal 32C-20-691	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)	
777.00	776.97	-3.97	0.79	End of Gyro Surveys
2,762.00	2,695.99	423.69	-132.07	As of July 31
4,845.00	4,722.17	845.01	-255.47	As of August 1
6,455.00	6,331.54	859.52	-248.13	As of August 2
7,740.00	7,616.38	864.70	-252.51	Projected TD

Checked By: _____ Approved By: _____ Date: _____