



PROJECT DETAILS: Weld County, CO NAD 83

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

Project: Weld County, CO NAD 83  
Site: Anschutz State 5-62-22. 23 SWSW Pad  
Well: Anschutz State Fed 5-62-27-0164B2  
Wellbore: OH  
Design: Plan 1



Azimuths to True North  
Magnetic North: 8.26°



Magnetic Field  
Strength: 52634.1nT  
Dip Angle: 67.02°  
Date: 11/11/2015  
Model: BGGM2015

Plan: Plan 1 (Anschutz State Fed 5-62-27-0164B2/OH)

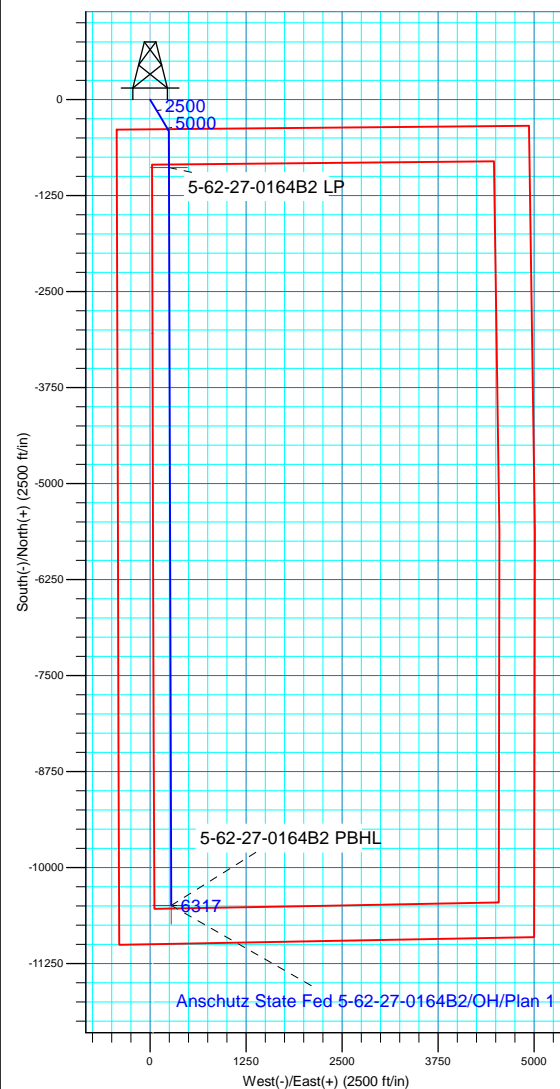
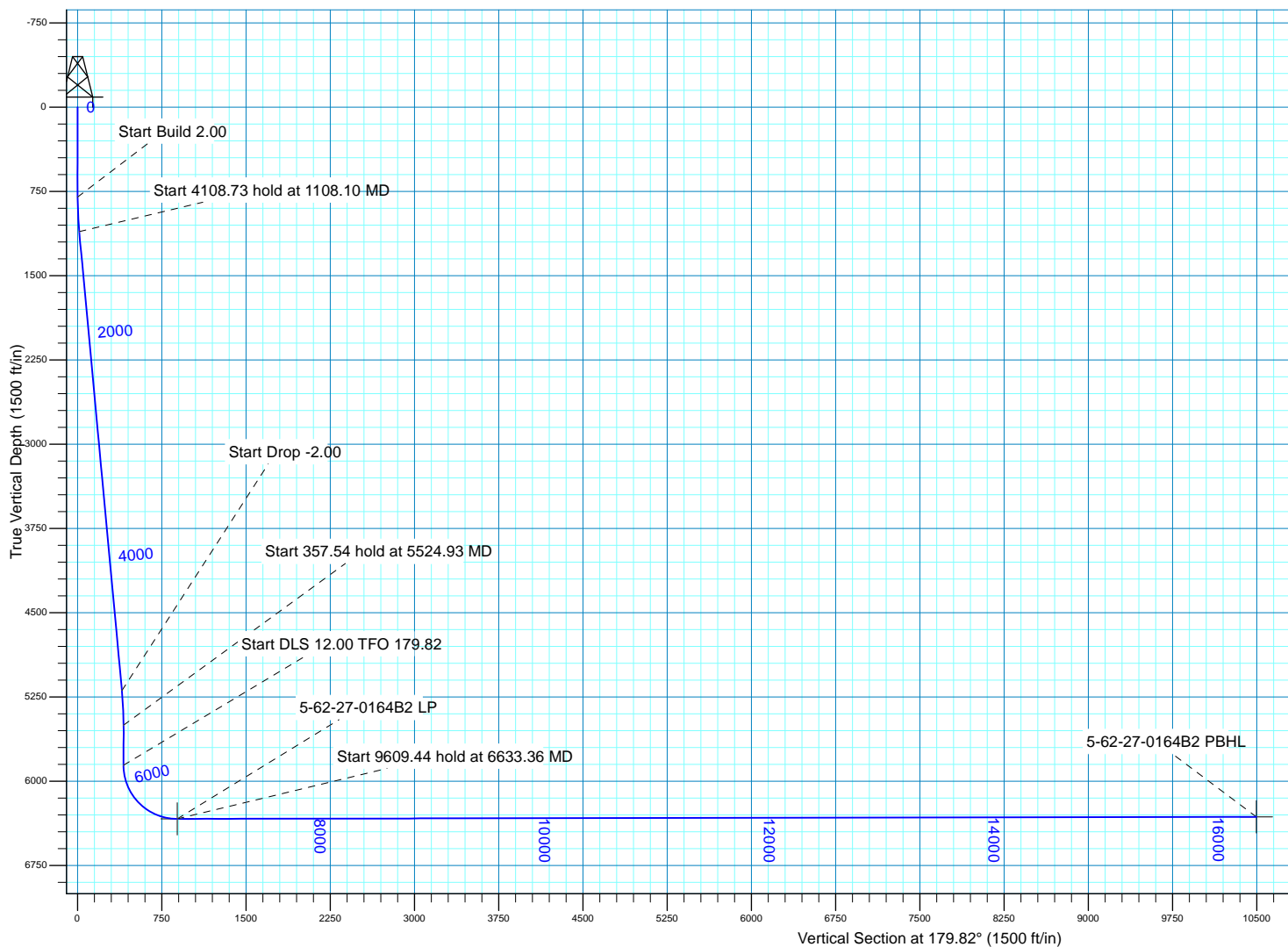
Created By: Seth Burstad Date: 11-11-2015

### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00
1108.10	6.16	149.19	1107.50	-14.22	8.48	2.00	149.19	14.24
5216.83	6.16	149.19	5192.50	-393.01	234.34	0.00	0.00	393.75
5524.93	0.00	0.00	5500.00	-407.23	242.82	2.00	180.00	407.99
5882.47	0.00	0.00	5857.54	-407.23	242.82	0.00	0.00	407.99
6633.36	90.11	179.82	6335.00	-885.59	244.34	12.00	179.82	886.35
16242.79	90.11	179.82	6317.00	-10494.95	274.81	0.00	0.00	10495.76

### WELL DETAILS: Anschutz State Fed 5-62-27-0164B2

		GL 4680' & KB 16' @ 4696.00ft		4680.00	Longitude
+N/-S	+E/-W	North	Easting	Latitude	
0.00	0.00	1383138.20	3329278.76	40° 22' 44.731 N	104° 19' 4.958 W





## **Bill Barrett Corp.**

Weld County, CO NAD 83  
Anchut State 5-62-22\_23 SWSW Pad  
Anschutz State Fed 5-62-27-0164B2

OH

Plan: Plan 1

## **Standard Planning Report**

11 November, 2015



<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Site:</b>	Anchutz State 5-62-22_23 SWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz State Fed 5-62-27-0164B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

<b>Project</b>	Weld County, CO NAD 83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	Anchutz State 5-62-22_23 SWSW Pad, Site Center: 5-62-27-0164B2B			
<b>Site Position:</b>		<b>Northing:</b>	1,383,138.54 usft	<b>Latitude:</b> 40° 22' 44.738 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,329,248.39 usft	<b>Longitude:</b> 104° 19' 5.351 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> 0.76 °

<b>Well</b>	Anschutz State Fed 5-62-27-0164B2, 388' FSL 430' FWL Sec 22 T5N R62W			
<b>Well Position</b>	<b>+N/-S</b>	-0.75 ft	<b>Northing:</b>	1,383,138.20 usft
	<b>+E/-W</b>	30.37 ft	<b>Easting:</b>	3,329,278.76 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft
			<b>Ground Level:</b>	4,680.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2015	11/11/2015	8.26	67.02	52,634

<b>Design</b>	Plan 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	179.82

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,108.10	6.16	149.19	1,107.50	-14.22	8.48	2.00	2.00	0.00	149.19	
5,216.83	6.16	149.19	5,192.50	-393.01	234.34	0.00	0.00	0.00	0.00	
5,524.93	0.00	0.00	5,500.00	-407.23	242.82	2.00	-2.00	0.00	180.00	
5,882.47	0.00	0.00	5,857.54	-407.23	242.82	0.00	0.00	0.00	0.00	
6,633.36	90.11	179.82	6,335.00	-885.59	244.34	12.00	12.00	23.95	179.82	
16,242.79	90.11	179.82	6,317.00	-10,494.95	274.81	0.00	0.00	0.00	0.00	5-62-27-0164B2 PBH

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Site:</b>	Anchutz State 5-62-22_23 SWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz State Fed 5-62-27-0164B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Planned 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	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
900.00	2.00	149.19	899.98	-1.50	0.89	1.50	2.00	2.00	0.00
1,000.00	4.00	149.19	999.84	-5.99	3.57	6.01	2.00	2.00	0.00
1,100.00	6.00	149.19	1,099.45	-13.48	8.04	13.50	2.00	2.00	0.00
1,108.10	6.16	149.19	1,107.50	-14.22	8.48	14.24	2.00	2.00	0.00
<b>Start 4108.73 hold at 1108.10 MD</b>									
1,200.00	6.16	149.19	1,198.88	-22.69	13.53	22.73	0.00	0.00	0.00
1,300.00	6.16	149.19	1,298.30	-31.91	19.03	31.97	0.00	0.00	0.00
1,400.00	6.16	149.19	1,397.72	-41.13	24.52	41.20	0.00	0.00	0.00
1,500.00	6.16	149.19	1,497.14	-50.35	30.02	50.44	0.00	0.00	0.00
1,600.00	6.16	149.19	1,596.56	-59.57	35.52	59.68	0.00	0.00	0.00
1,700.00	6.16	149.19	1,695.99	-68.79	41.01	68.91	0.00	0.00	0.00
1,800.00	6.16	149.19	1,795.41	-78.00	46.51	78.15	0.00	0.00	0.00
1,900.00	6.16	149.19	1,894.83	-87.22	52.01	87.39	0.00	0.00	0.00
2,000.00	6.16	149.19	1,994.25	-96.44	57.51	96.62	0.00	0.00	0.00
2,100.00	6.16	149.19	2,093.68	-105.66	63.00	105.86	0.00	0.00	0.00
2,200.00	6.16	149.19	2,193.10	-114.88	68.50	115.10	0.00	0.00	0.00
2,300.00	6.16	149.19	2,292.52	-124.10	74.00	124.33	0.00	0.00	0.00
2,400.00	6.16	149.19	2,391.94	-133.32	79.50	133.57	0.00	0.00	0.00
2,500.00	6.16	149.19	2,491.36	-142.54	84.99	142.81	0.00	0.00	0.00
2,600.00	6.16	149.19	2,590.79	-151.76	90.49	152.04	0.00	0.00	0.00
2,700.00	6.16	149.19	2,690.21	-160.98	95.99	161.28	0.00	0.00	0.00
2,800.00	6.16	149.19	2,789.63	-170.20	101.48	170.52	0.00	0.00	0.00
2,900.00	6.16	149.19	2,889.05	-179.42	106.98	179.75	0.00	0.00	0.00
3,000.00	6.16	149.19	2,988.48	-188.64	112.48	188.99	0.00	0.00	0.00
3,100.00	6.16	149.19	3,087.90	-197.86	117.98	198.23	0.00	0.00	0.00
3,200.00	6.16	149.19	3,187.32	-207.08	123.47	207.46	0.00	0.00	0.00
3,300.00	6.16	149.19	3,286.74	-216.30	128.97	216.70	0.00	0.00	0.00
3,400.00	6.16	149.19	3,386.17	-225.51	134.47	225.94	0.00	0.00	0.00
3,500.00	6.16	149.19	3,485.59	-234.73	139.97	235.17	0.00	0.00	0.00
3,600.00	6.16	149.19	3,585.01	-243.95	145.46	244.41	0.00	0.00	0.00
3,700.00	6.16	149.19	3,684.43	-253.17	150.96	253.65	0.00	0.00	0.00
3,800.00	6.16	149.19	3,783.85	-262.39	156.46	262.88	0.00	0.00	0.00
3,900.00	6.16	149.19	3,883.28	-271.61	161.95	272.12	0.00	0.00	0.00
4,000.00	6.16	149.19	3,982.70	-280.83	167.45	281.36	0.00	0.00	0.00
4,100.00	6.16	149.19	4,082.12	-290.05	172.95	290.59	0.00	0.00	0.00
4,200.00	6.16	149.19	4,181.54	-299.27	178.45	299.83	0.00	0.00	0.00
4,300.00	6.16	149.19	4,280.97	-308.49	183.94	309.06	0.00	0.00	0.00
4,400.00	6.16	149.19	4,380.39	-317.71	189.44	318.30	0.00	0.00	0.00
4,500.00	6.16	149.19	4,479.81	-326.93	194.94	327.54	0.00	0.00	0.00
4,600.00	6.16	149.19	4,579.23	-336.15	200.43	336.77	0.00	0.00	0.00
4,700.00	6.16	149.19	4,678.65	-345.37	205.93	346.01	0.00	0.00	0.00
4,717.45	6.16	149.19	4,696.00	-346.97	206.89	347.62	0.00	0.00	0.00
<b>BASE OF FOX HILLS</b>									

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Site:</b>	Anschutz State 5-62-22_23 SWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz State Fed 5-62-27-0164B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Planned 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)
4,800.00	6.16	149.19	4,778.08	-354.59	211.43	355.25	0.00	0.00	0.00
4,900.00	6.16	149.19	4,877.50	-363.80	216.93	364.48	0.00	0.00	0.00
5,000.00	6.16	149.19	4,976.92	-373.02	222.42	373.72	0.00	0.00	0.00
5,100.00	6.16	149.19	5,076.34	-382.24	227.92	382.96	0.00	0.00	0.00
5,200.00	6.16	149.19	5,175.77	-391.46	233.42	392.19	0.00	0.00	0.00
5,216.83	6.16	149.19	5,192.50	-393.01	234.34	393.75	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,248.50	5.53	149.19	5,224.00	-395.78	236.00	396.52	2.00	-2.00	0.00
<b>SHANNON</b>									
5,300.00	4.50	149.19	5,275.31	-399.65	238.30	400.40	2.00	-2.00	0.00
5,400.00	2.50	149.19	5,375.11	-404.89	241.43	405.65	2.00	-2.00	0.00
5,500.00	0.50	149.19	5,475.08	-407.14	242.76	407.90	2.00	-2.00	0.00
5,524.93	0.00	0.00	5,500.00	-407.23	242.82	407.99	2.00	-2.00	0.00
<b>Start 357.54 hold at 5524.93 MD</b>									
5,600.00	0.00	0.00	5,575.07	-407.23	242.82	407.99	0.00	0.00	0.00
5,700.00	0.00	0.00	5,675.07	-407.23	242.82	407.99	0.00	0.00	0.00
5,800.00	0.00	0.00	5,775.07	-407.23	242.82	407.99	0.00	0.00	0.00
5,882.47	0.00	0.00	5,857.54	-407.23	242.82	407.99	0.00	0.00	0.00
<b>Start DLS 12.00 TFO 179.82</b>									
5,900.00	2.10	179.82	5,875.07	-407.55	242.82	408.31	12.00	12.00	0.00
6,000.00	14.10	179.82	5,973.89	-421.62	242.87	422.38	12.00	12.00	0.00
6,100.00	26.10	179.82	6,067.63	-455.93	242.97	456.69	12.00	12.00	0.00
6,124.11	29.00	179.82	6,089.00	-467.08	243.01	467.84	12.00	12.00	0.00
<b>SHARON SPRINGS</b>									
6,200.00	38.10	179.82	6,152.18	-508.98	243.14	509.74	12.00	12.00	0.00
6,248.83	43.96	179.82	6,189.00	-541.03	243.24	541.79	12.00	12.00	0.00
<b>NIOBRARA</b>									
6,300.00	50.10	179.82	6,223.86	-578.45	243.36	579.21	12.00	12.00	0.00
6,400.00	62.10	179.82	6,279.52	-661.30	243.63	662.07	12.00	12.00	0.00
6,451.18	68.25	179.82	6,301.00	-707.73	243.77	708.49	12.00	12.00	0.00
<b>TOP B CHALK TARGET</b>									
6,500.00	74.10	179.82	6,316.75	-753.92	243.92	754.68	12.00	12.00	0.00
6,500.93	74.22	179.82	6,317.00	-754.81	243.92	755.57	12.00	12.00	0.00
<b>TD (HORIZONTAL)</b>									
6,600.00	86.10	179.82	6,333.90	-852.25	244.23	853.02	12.00	12.00	0.00
6,630.32	89.74	179.82	6,335.00	-882.55	244.33	883.31	12.00	12.00	0.00
<b>LANDING POINT</b>									
6,633.36	90.11	179.82	6,335.00	-885.59	244.34	886.35	12.00	12.00	0.00
<b>Start 9609.44 hold at 6633.36 MD</b>									
6,700.00	90.11	179.82	6,334.88	-952.23	244.55	952.99	0.00	0.00	0.00
6,800.00	90.11	179.82	6,334.69	-1,052.23	244.87	1,052.99	0.00	0.00	0.00
6,900.00	90.11	179.82	6,334.50	-1,152.23	245.18	1,152.99	0.00	0.00	0.00
7,000.00	90.11	179.82	6,334.32	-1,252.22	245.50	1,252.99	0.00	0.00	0.00
7,100.00	90.11	179.82	6,334.13	-1,352.22	245.82	1,352.99	0.00	0.00	0.00
7,200.00	90.11	179.82	6,333.94	-1,452.22	246.13	1,452.99	0.00	0.00	0.00
7,300.00	90.11	179.82	6,333.76	-1,552.22	246.45	1,552.99	0.00	0.00	0.00
7,400.00	90.11	179.82	6,333.57	-1,652.22	246.77	1,652.99	0.00	0.00	0.00
7,500.00	90.11	179.82	6,333.38	-1,752.22	247.09	1,752.99	0.00	0.00	0.00
7,600.00	90.11	179.82	6,333.19	-1,852.22	247.40	1,852.99	0.00	0.00	0.00
7,700.00	90.11	179.82	6,333.01	-1,952.22	247.72	1,952.99	0.00	0.00	0.00
7,800.00	90.11	179.82	6,332.82	-2,052.22	248.04	2,052.99	0.00	0.00	0.00
7,900.00	90.11	179.82	6,332.63	-2,152.22	248.35	2,152.99	0.00	0.00	0.00
8,000.00	90.11	179.82	6,332.44	-2,252.22	248.67	2,252.99	0.00	0.00	0.00

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Site:</b>	Anschutz State 5-62-22_23 SWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz State Fed 5-62-27-0164B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Planned 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)	
8,100.00	90.11	179.82	6,332.26	-2,352.22	248.99	2,352.99	0.00	0.00	0.00	
8,200.00	90.11	179.82	6,332.07	-2,452.22	249.31	2,452.99	0.00	0.00	0.00	
8,300.00	90.11	179.82	6,331.88	-2,552.22	249.62	2,552.99	0.00	0.00	0.00	
8,400.00	90.11	179.82	6,331.69	-2,652.22	249.94	2,652.99	0.00	0.00	0.00	
8,500.00	90.11	179.82	6,331.51	-2,752.21	250.26	2,752.99	0.00	0.00	0.00	
8,600.00	90.11	179.82	6,331.32	-2,852.21	250.57	2,852.99	0.00	0.00	0.00	
8,700.00	90.11	179.82	6,331.13	-2,952.21	250.89	2,952.99	0.00	0.00	0.00	
8,800.00	90.11	179.82	6,330.94	-3,052.21	251.21	3,052.99	0.00	0.00	0.00	
8,900.00	90.11	179.82	6,330.76	-3,152.21	251.53	3,152.99	0.00	0.00	0.00	
9,000.00	90.11	179.82	6,330.57	-3,252.21	251.84	3,252.99	0.00	0.00	0.00	
9,100.00	90.11	179.82	6,330.38	-3,352.21	252.16	3,352.99	0.00	0.00	0.00	
9,200.00	90.11	179.82	6,330.20	-3,452.21	252.48	3,452.99	0.00	0.00	0.00	
9,300.00	90.11	179.82	6,330.01	-3,552.21	252.79	3,552.99	0.00	0.00	0.00	
9,400.00	90.11	179.82	6,329.82	-3,652.21	253.11	3,652.99	0.00	0.00	0.00	
9,500.00	90.11	179.82	6,329.63	-3,752.21	253.43	3,752.99	0.00	0.00	0.00	
9,600.00	90.11	179.82	6,329.45	-3,852.21	253.75	3,852.99	0.00	0.00	0.00	
9,700.00	90.11	179.82	6,329.26	-3,952.21	254.06	3,952.99	0.00	0.00	0.00	
9,800.00	90.11	179.82	6,329.07	-4,052.21	254.38	4,052.98	0.00	0.00	0.00	
9,900.00	90.11	179.82	6,328.88	-4,152.21	254.70	4,152.98	0.00	0.00	0.00	
10,000.00	90.11	179.82	6,328.70	-4,252.20	255.01	4,252.98	0.00	0.00	0.00	
10,100.00	90.11	179.82	6,328.51	-4,352.20	255.33	4,352.98	0.00	0.00	0.00	
10,200.00	90.11	179.82	6,328.32	-4,452.20	255.65	4,452.98	0.00	0.00	0.00	
10,300.00	90.11	179.82	6,328.13	-4,552.20	255.97	4,552.98	0.00	0.00	0.00	
10,400.00	90.11	179.82	6,327.95	-4,652.20	256.28	4,652.98	0.00	0.00	0.00	
10,500.00	90.11	179.82	6,327.76	-4,752.20	256.60	4,752.98	0.00	0.00	0.00	
10,600.00	90.11	179.82	6,327.57	-4,852.20	256.92	4,852.98	0.00	0.00	0.00	
10,700.00	90.11	179.82	6,327.38	-4,952.20	257.23	4,952.98	0.00	0.00	0.00	
10,800.00	90.11	179.82	6,327.20	-5,052.20	257.55	5,052.98	0.00	0.00	0.00	
10,900.00	90.11	179.82	6,327.01	-5,152.20	257.87	5,152.98	0.00	0.00	0.00	
11,000.00	90.11	179.82	6,326.82	-5,252.20	258.19	5,252.98	0.00	0.00	0.00	
11,100.00	90.11	179.82	6,326.64	-5,352.20	258.50	5,352.98	0.00	0.00	0.00	
11,200.00	90.11	179.82	6,326.45	-5,452.20	258.82	5,452.98	0.00	0.00	0.00	
11,300.00	90.11	179.82	6,326.26	-5,552.20	259.14	5,552.98	0.00	0.00	0.00	
11,400.00	90.11	179.82	6,326.07	-5,652.19	259.45	5,652.98	0.00	0.00	0.00	
11,500.00	90.11	179.82	6,325.89	-5,752.19	259.77	5,752.98	0.00	0.00	0.00	
11,600.00	90.11	179.82	6,325.70	-5,852.19	260.09	5,852.98	0.00	0.00	0.00	
11,700.00	90.11	179.82	6,325.51	-5,952.19	260.41	5,952.98	0.00	0.00	0.00	
11,800.00	90.11	179.82	6,325.32	-6,052.19	260.72	6,052.98	0.00	0.00	0.00	
11,900.00	90.11	179.82	6,325.14	-6,152.19	261.04	6,152.98	0.00	0.00	0.00	
12,000.00	90.11	179.82	6,324.95	-6,252.19	261.36	6,252.98	0.00	0.00	0.00	
12,100.00	90.11	179.82	6,324.76	-6,352.19	261.67	6,352.98	0.00	0.00	0.00	
12,200.00	90.11	179.82	6,324.57	-6,452.19	261.99	6,452.98	0.00	0.00	0.00	
12,300.00	90.11	179.82	6,324.39	-6,552.19	262.31	6,552.98	0.00	0.00	0.00	
12,400.00	90.11	179.82	6,324.20	-6,652.19	262.63	6,652.98	0.00	0.00	0.00	
12,500.00	90.11	179.82	6,324.01	-6,752.19	262.94	6,752.98	0.00	0.00	0.00	
12,600.00	90.11	179.82	6,323.83	-6,852.19	263.26	6,852.98	0.00	0.00	0.00	
12,700.00	90.11	179.82	6,323.64	-6,952.19	263.58	6,952.98	0.00	0.00	0.00	
12,800.00	90.11	179.82	6,323.45	-7,052.19	263.89	7,052.98	0.00	0.00	0.00	
12,900.00	90.11	179.82	6,323.26	-7,152.18	264.21	7,152.98	0.00	0.00	0.00	
13,000.00	90.11	179.82	6,323.08	-7,252.18	264.53	7,252.98	0.00	0.00	0.00	
13,100.00	90.11	179.82	6,322.89	-7,352.18	264.85	7,352.98	0.00	0.00	0.00	
13,200.00	90.11	179.82	6,322.70	-7,452.18	265.16	7,452.98	0.00	0.00	0.00	
13,300.00	90.11	179.82	6,322.51	-7,552.18	265.48	7,552.98	0.00	0.00	0.00	
13,400.00	90.11	179.82	6,322.33	-7,652.18	265.80	7,652.98	0.00	0.00	0.00	

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Site:</b>	Anchutz State 5-62-22_23 SWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz State Fed 5-62-27-0164B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Planned 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)
13,500.00	90.11	179.82	6,322.14	-7,752.18	266.11	7,752.98	0.00	0.00	0.00
13,600.00	90.11	179.82	6,321.95	-7,852.18	266.43	7,852.98	0.00	0.00	0.00
13,700.00	90.11	179.82	6,321.76	-7,952.18	266.75	7,952.98	0.00	0.00	0.00
13,800.00	90.11	179.82	6,321.58	-8,052.18	267.07	8,052.98	0.00	0.00	0.00
13,900.00	90.11	179.82	6,321.39	-8,152.18	267.38	8,152.98	0.00	0.00	0.00
14,000.00	90.11	179.82	6,321.20	-8,252.18	267.70	8,252.98	0.00	0.00	0.00
14,100.00	90.11	179.82	6,321.01	-8,352.18	268.02	8,352.98	0.00	0.00	0.00
14,200.00	90.11	179.82	6,320.83	-8,452.18	268.33	8,452.98	0.00	0.00	0.00
14,300.00	90.11	179.82	6,320.64	-8,552.18	268.65	8,552.98	0.00	0.00	0.00
14,400.00	90.11	179.82	6,320.45	-8,652.17	268.97	8,652.98	0.00	0.00	0.00
14,500.00	90.11	179.82	6,320.27	-8,752.17	269.29	8,752.98	0.00	0.00	0.00
14,600.00	90.11	179.82	6,320.08	-8,852.17	269.60	8,852.98	0.00	0.00	0.00
14,700.00	90.11	179.82	6,319.89	-8,952.17	269.92	8,952.98	0.00	0.00	0.00
14,800.00	90.11	179.82	6,319.70	-9,052.17	270.24	9,052.98	0.00	0.00	0.00
14,900.00	90.11	179.82	6,319.52	-9,152.17	270.55	9,152.98	0.00	0.00	0.00
15,000.00	90.11	179.82	6,319.33	-9,252.17	270.87	9,252.98	0.00	0.00	0.00
15,100.00	90.11	179.82	6,319.14	-9,352.17	271.19	9,352.98	0.00	0.00	0.00
15,200.00	90.11	179.82	6,318.95	-9,452.17	271.51	9,452.98	0.00	0.00	0.00
15,300.00	90.11	179.82	6,318.77	-9,552.17	271.82	9,552.98	0.00	0.00	0.00
15,400.00	90.11	179.82	6,318.58	-9,652.17	272.14	9,652.98	0.00	0.00	0.00
15,500.00	90.11	179.82	6,318.39	-9,752.17	272.46	9,752.97	0.00	0.00	0.00
15,600.00	90.11	179.82	6,318.20	-9,852.17	272.77	9,852.97	0.00	0.00	0.00
15,700.00	90.11	179.82	6,318.02	-9,952.17	273.09	9,952.97	0.00	0.00	0.00
15,800.00	90.11	179.82	6,317.83	-10,052.17	273.41	10,052.97	0.00	0.00	0.00
15,900.00	90.11	179.82	6,317.64	-10,152.16	273.73	10,152.97	0.00	0.00	0.00
16,000.00	90.11	179.82	6,317.46	-10,252.16	274.04	10,252.97	0.00	0.00	0.00
16,100.00	90.11	179.82	6,317.27	-10,352.16	274.36	10,352.97	0.00	0.00	0.00
16,200.00	90.11	179.82	6,317.08	-10,452.16	274.68	10,452.97	0.00	0.00	0.00
16,242.79	90.11	179.82	6,317.00	-10,494.95	274.81	10,495.76	0.00	0.00	0.00
TD at 16242.80									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
5-62-27-0164B2 PBHL - hit/miss target - Shape - Point	0.00	0.00	6,317.00	-10,494.95	274.81	1,372,647.86	3,329,693.44	40° 21' 1.019 N	104° 19' 1.409 W
5-62-27-0164B2 LP - plan hits target center - Point	0.00	0.00	6,335.00	-885.58	244.34	1,382,255.95	3,329,534.88	40° 22' 35.980 N	104° 19' 1.801 W

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164B2
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4680' & KB 16' @ 4696.00ft
<b>Site:</b>	Anchutz State 5-62-22_23 SWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz State Fed 5-62-27-0164B2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,717.45	4,696.00	BASE OF FOX HILLS		0.00	
5,248.50	5,224.00	SHANNON		0.00	
6,124.11	6,089.00	SHARON SPRINGS		0.00	
6,248.83	6,189.00	NIOBRARA		0.00	
6,451.18	6,301.00	TOP B CHALK TARGET		0.00	
6,500.93	6,317.00	TD (HORIZONTAL)		0.00	
6,630.32	6,335.00	LANDING POINT		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
800.00	800.00	0.00	0.00	Start Build 2.00	
1,108.10	1,107.50	-14.22	8.48	Start 4108.73 hold at 1108.10 MD	
5,216.83	5,192.50	-393.01	234.34	Start Drop -2.00	
5,524.93	5,500.00	-407.23	242.82	Start 357.54 hold at 5524.93 MD	
5,882.47	5,857.54	-407.23	242.82	Start DLS 12.00 TFO 179.82	
6,633.36	6,335.00	-885.59	244.34	Start 9609.44 hold at 6633.36 MD	
16,242.79	6,317.00	-10,494.95	274.81	TD at 16242.80	