



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 5-62-27-0164C2B  
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 5-62-27-0164C2B/OH)

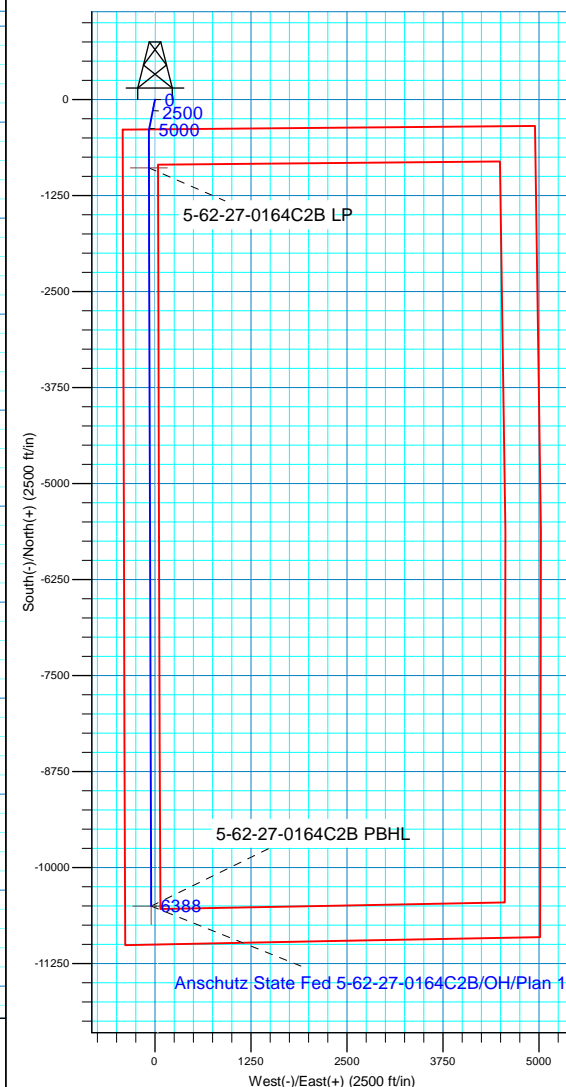
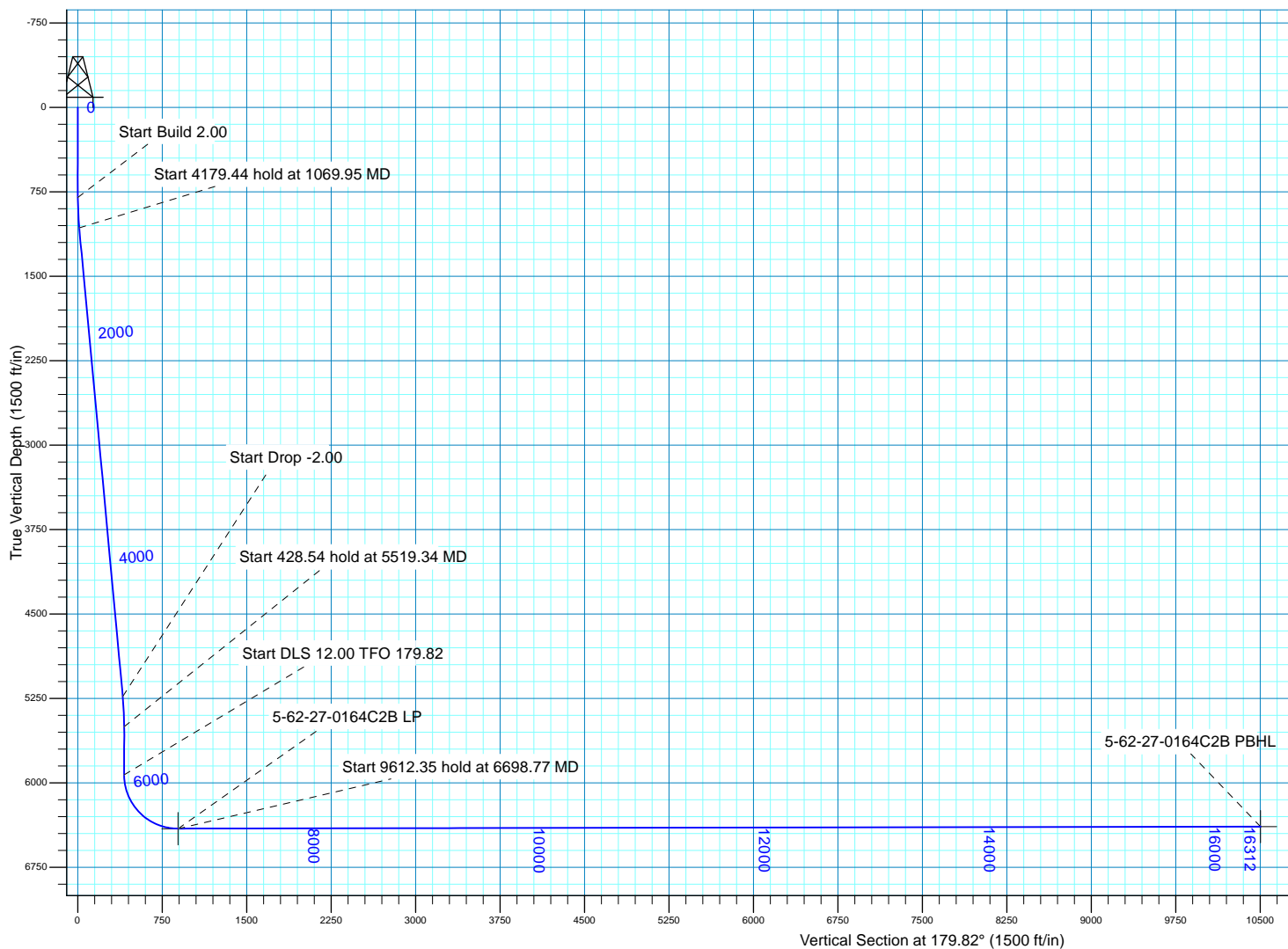
Created By: Seth Burstad Date: 11-11-2015

### 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
1069.95	5.40	191.06	1069.55	-12.47	-2.44	2.00	191.06	12.47
5249.39	5.40	191.06	5230.45	-398.41	-77.91	0.00	0.00	398.16
5519.34	0.00	0.00	5500.00	-410.88	-80.35	2.00	180.00	410.63
5947.88	0.00	0.00	5928.54	-410.88	-80.35	0.00	0.00	410.63
6698.77	90.11	179.82	6406.00	-889.24	-78.85	12.00	179.82	888.98
16311.11	90.11	179.82	6388.00	-10501.51	-48.78	0.00	0.00	10501.31

### WELL DETAILS: Anschutz State Fed 5-62-27-0164C2B

		GL 4680' & KB 16' @ 4696.00ft		4680.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1383138.72	3329263.15	40° 22' 44.738 N	104° 19' 5.160 W





## **Bill Barrett Corp.**

Weld County, CO NAD 83  
Anchut State 5-62-22\_23 SWSW Pad  
Anschutz State Fed 5-62-27-0164C2B

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 5-62-27-0164C2B
<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 5-62-27-0164C2B	<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		

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

Well	Anschutz State Fed 5-62-27-0164C2B, 389' FSL 415' FWL Sec 22 T5N R62W					
Well Position	+N/-S	-0.02 ft	Northing:	1,383,138.72 usft	Latitude:	40° 22' 44.738 N
	+E/-W	14.77 ft	Easting:	3,329,263.16 usft	Longitude:	104° 19' 5.160 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	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	
1,069.95	5.40	191.06	1,069.55	-12.47	-2.44	2.00	2.00	0.00	191.06	
5,249.39	5.40	191.06	5,230.45	-398.41	-77.91	0.00	0.00	0.00	0.00	
5,519.34	0.00	0.00	5,500.00	-410.88	-80.35	2.00	-2.00	0.00	180.00	
5,947.88	0.00	0.00	5,928.54	-410.88	-80.35	0.00	0.00	0.00	0.00	
6,698.77	90.11	179.82	6,406.00	-889.24	-78.85	12.00	12.00	23.95	179.82	
16,311.11	90.11	179.82	6,388.00	-10,501.51	-48.78	0.00	0.00	0.00	0.00	5-62-27-0164C2B PB

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164C2B
<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 5-62-27-0164C2B	<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	191.06	899.98	-1.71	-0.33	1.71	2.00	2.00	0.00
1,000.00	4.00	191.06	999.84	-6.85	-1.34	6.84	2.00	2.00	0.00
1,069.95	5.40	191.06	1,069.55	-12.47	-2.44	12.47	2.00	2.00	0.00
<b>Start 4179.44 hold at 1069.95 MD</b>									
1,100.00	5.40	191.06	1,099.47	-15.25	-2.98	15.24	0.00	0.00	0.00
1,200.00	5.40	191.06	1,199.02	-24.48	-4.79	24.47	0.00	0.00	0.00
1,300.00	5.40	191.06	1,298.58	-33.72	-6.59	33.70	0.00	0.00	0.00
1,400.00	5.40	191.06	1,398.14	-42.95	-8.40	42.92	0.00	0.00	0.00
1,500.00	5.40	191.06	1,497.69	-52.18	-10.20	52.15	0.00	0.00	0.00
1,600.00	5.40	191.06	1,597.25	-61.42	-12.01	61.38	0.00	0.00	0.00
1,700.00	5.40	191.06	1,696.81	-70.65	-13.82	70.61	0.00	0.00	0.00
1,800.00	5.40	191.06	1,796.36	-79.89	-15.62	79.84	0.00	0.00	0.00
1,900.00	5.40	191.06	1,895.92	-89.12	-17.43	89.07	0.00	0.00	0.00
2,000.00	5.40	191.06	1,995.47	-98.35	-19.23	98.29	0.00	0.00	0.00
2,100.00	5.40	191.06	2,095.03	-107.59	-21.04	107.52	0.00	0.00	0.00
2,200.00	5.40	191.06	2,194.59	-116.82	-22.85	116.75	0.00	0.00	0.00
2,300.00	5.40	191.06	2,294.14	-126.06	-24.65	125.98	0.00	0.00	0.00
2,400.00	5.40	191.06	2,393.70	-135.29	-26.46	135.21	0.00	0.00	0.00
2,500.00	5.40	191.06	2,493.26	-144.53	-28.26	144.44	0.00	0.00	0.00
2,600.00	5.40	191.06	2,592.81	-153.76	-30.07	153.66	0.00	0.00	0.00
2,700.00	5.40	191.06	2,692.37	-162.99	-31.87	162.89	0.00	0.00	0.00
2,800.00	5.40	191.06	2,791.93	-172.23	-33.68	172.12	0.00	0.00	0.00
2,900.00	5.40	191.06	2,891.48	-181.46	-35.49	181.35	0.00	0.00	0.00
3,000.00	5.40	191.06	2,991.04	-190.70	-37.29	190.58	0.00	0.00	0.00
3,100.00	5.40	191.06	3,090.59	-199.93	-39.10	199.81	0.00	0.00	0.00
3,200.00	5.40	191.06	3,190.15	-209.16	-40.90	209.03	0.00	0.00	0.00
3,300.00	5.40	191.06	3,289.71	-218.40	-42.71	218.26	0.00	0.00	0.00
3,400.00	5.40	191.06	3,389.26	-227.63	-44.51	227.49	0.00	0.00	0.00
3,500.00	5.40	191.06	3,488.82	-236.87	-46.32	236.72	0.00	0.00	0.00
3,600.00	5.40	191.06	3,588.38	-246.10	-48.13	245.95	0.00	0.00	0.00
3,700.00	5.40	191.06	3,687.93	-255.33	-49.93	255.18	0.00	0.00	0.00
3,800.00	5.40	191.06	3,787.49	-264.57	-51.74	264.40	0.00	0.00	0.00
3,900.00	5.40	191.06	3,887.05	-273.80	-53.54	273.63	0.00	0.00	0.00
4,000.00	5.40	191.06	3,986.60	-283.04	-55.35	282.86	0.00	0.00	0.00
4,100.00	5.40	191.06	4,086.16	-292.27	-57.16	292.09	0.00	0.00	0.00
4,200.00	5.40	191.06	4,185.71	-301.51	-58.96	301.32	0.00	0.00	0.00
4,300.00	5.40	191.06	4,285.27	-310.74	-60.77	310.55	0.00	0.00	0.00
4,400.00	5.40	191.06	4,384.83	-319.97	-62.57	319.78	0.00	0.00	0.00
4,500.00	5.40	191.06	4,484.38	-329.21	-64.38	329.00	0.00	0.00	0.00
4,600.00	5.40	191.06	4,583.94	-338.44	-66.18	338.23	0.00	0.00	0.00
4,700.00	5.40	191.06	4,683.50	-347.68	-67.99	347.46	0.00	0.00	0.00
4,712.56	5.40	191.06	4,696.00	-348.84	-68.22	348.62	0.00	0.00	0.00
<b>BASE OF FOX HILLS</b>									

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<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 5-62-27-0164C2B	<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	5.40	191.06	4,783.05	-356.91	-69.80	356.69	0.00	0.00	0.00
4,900.00	5.40	191.06	4,882.61	-366.14	-71.60	365.92	0.00	0.00	0.00
5,000.00	5.40	191.06	4,982.17	-375.38	-73.41	375.15	0.00	0.00	0.00
5,100.00	5.40	191.06	5,081.72	-384.61	-75.21	384.37	0.00	0.00	0.00
5,200.00	5.40	191.06	5,181.28	-393.85	-77.02	393.60	0.00	0.00	0.00
5,249.39	5.40	191.06	5,230.45	-398.41	-77.91	398.16	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,249.94	5.39	191.06	5,231.00	-398.46	-77.92	398.21	2.00	-2.00	0.00
<b>SHANNON</b>									
5,300.00	4.39	191.06	5,280.87	-402.64	-78.74	402.39	2.00	-2.00	0.00
5,400.00	2.39	191.06	5,380.69	-408.44	-79.87	408.19	2.00	-2.00	0.00
5,500.00	0.39	191.06	5,480.66	-410.82	-80.34	410.56	2.00	-2.00	0.00
5,519.34	0.00	0.00	5,500.00	-410.88	-80.35	410.63	2.00	-2.00	0.00
<b>Start 428.54 hold at 5519.34 MD</b>									
5,600.00	0.00	0.00	5,580.66	-410.88	-80.35	410.63	0.00	0.00	0.00
5,700.00	0.00	0.00	5,680.66	-410.88	-80.35	410.63	0.00	0.00	0.00
5,800.00	0.00	0.00	5,780.66	-410.88	-80.35	410.63	0.00	0.00	0.00
5,900.00	0.00	0.00	5,880.66	-410.88	-80.35	410.63	0.00	0.00	0.00
5,947.88	0.00	0.00	5,928.54	-410.88	-80.35	410.63	0.00	0.00	0.00
<b>Start DLS 12.00 TFO 179.82</b>									
6,000.00	6.25	179.82	5,980.56	-413.72	-80.34	413.47	12.00	12.00	0.00
6,100.00	18.25	179.82	6,078.10	-434.91	-80.27	434.65	12.00	12.00	0.00
6,118.98	20.53	179.82	6,096.00	-441.21	-80.26	440.96	12.00	12.00	0.00
<b>SHARON SPRINGS</b>									
6,200.00	30.25	179.82	6,169.11	-475.91	-80.15	475.66	12.00	12.00	0.00
6,231.77	34.07	179.82	6,196.00	-492.82	-80.09	492.57	12.00	12.00	0.00
<b>NIOBRARA</b>									
6,300.00	42.25	179.82	6,249.60	-534.94	-79.96	534.69	12.00	12.00	0.00
6,400.00	54.25	179.82	6,316.06	-609.41	-79.73	609.16	12.00	12.00	0.00
6,500.00	66.25	179.82	6,365.58	-696.08	-79.46	695.83	12.00	12.00	0.00
6,542.67	71.38	179.82	6,381.00	-735.86	-79.33	735.60	12.00	12.00	0.00
<b>TOP C CHALK TARGET</b>									
6,566.34	74.22	179.82	6,388.00	-758.46	-79.26	758.21	12.00	12.00	0.00
<b>TD (HORIZONTAL)</b>									
6,600.00	78.25	179.82	6,396.01	-791.15	-79.16	790.89	12.00	12.00	0.00
6,695.73	89.74	179.82	6,406.00	-886.20	-78.86	885.94	12.00	12.00	0.00
<b>LANDING POINT</b>									
6,698.77	90.11	179.82	6,406.00	-889.24	-78.85	888.98	12.00	12.00	0.00
<b>Start 9612.35 hold at 6698.77 MD</b>									
6,700.00	90.11	179.82	6,406.00	-890.46	-78.85	890.21	0.00	0.00	0.00
6,800.00	90.11	179.82	6,405.81	-990.46	-78.54	990.21	0.00	0.00	0.00
6,900.00	90.11	179.82	6,405.63	-1,090.46	-78.22	1,090.21	0.00	0.00	0.00
7,000.00	90.11	179.82	6,405.44	-1,190.46	-77.91	1,190.21	0.00	0.00	0.00
7,100.00	90.11	179.82	6,405.25	-1,290.46	-77.60	1,290.21	0.00	0.00	0.00
7,200.00	90.11	179.82	6,405.07	-1,390.46	-77.28	1,390.21	0.00	0.00	0.00
7,300.00	90.11	179.82	6,404.88	-1,490.46	-76.97	1,490.21	0.00	0.00	0.00
7,400.00	90.11	179.82	6,404.69	-1,590.46	-76.66	1,590.21	0.00	0.00	0.00
7,500.00	90.11	179.82	6,404.50	-1,690.46	-76.35	1,690.21	0.00	0.00	0.00
7,600.00	90.11	179.82	6,404.32	-1,790.46	-76.03	1,790.21	0.00	0.00	0.00
7,700.00	90.11	179.82	6,404.13	-1,890.46	-75.72	1,890.21	0.00	0.00	0.00
7,800.00	90.11	179.82	6,403.94	-1,990.46	-75.41	1,990.21	0.00	0.00	0.00
7,900.00	90.11	179.82	6,403.75	-2,090.45	-75.09	2,090.21	0.00	0.00	0.00
8,000.00	90.11	179.82	6,403.57	-2,190.45	-74.78	2,190.21	0.00	0.00	0.00

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<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 5-62-27-0164C2B	<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	6,403.38	-2,290.45	-74.47	2,290.21	0.00	0.00	0.00
8,200.00	90.11	179.82	6,403.19	-2,390.45	-74.16	2,390.21	0.00	0.00	0.00
8,300.00	90.11	179.82	6,403.01	-2,490.45	-73.84	2,490.21	0.00	0.00	0.00
8,400.00	90.11	179.82	6,402.82	-2,590.45	-73.53	2,590.21	0.00	0.00	0.00
8,500.00	90.11	179.82	6,402.63	-2,690.45	-73.22	2,690.21	0.00	0.00	0.00
8,600.00	90.11	179.82	6,402.44	-2,790.45	-72.90	2,790.21	0.00	0.00	0.00
8,700.00	90.11	179.82	6,402.26	-2,890.45	-72.59	2,890.21	0.00	0.00	0.00
8,800.00	90.11	179.82	6,402.07	-2,990.45	-72.28	2,990.21	0.00	0.00	0.00
8,900.00	90.11	179.82	6,401.88	-3,090.45	-71.97	3,090.21	0.00	0.00	0.00
9,000.00	90.11	179.82	6,401.69	-3,190.45	-71.65	3,190.21	0.00	0.00	0.00
9,100.00	90.11	179.82	6,401.51	-3,290.45	-71.34	3,290.21	0.00	0.00	0.00
9,200.00	90.11	179.82	6,401.32	-3,390.45	-71.03	3,390.21	0.00	0.00	0.00
9,300.00	90.11	179.82	6,401.13	-3,490.45	-70.71	3,490.21	0.00	0.00	0.00
9,400.00	90.11	179.82	6,400.94	-3,590.44	-70.40	3,590.21	0.00	0.00	0.00
9,500.00	90.11	179.82	6,400.76	-3,690.44	-70.09	3,690.21	0.00	0.00	0.00
9,600.00	90.11	179.82	6,400.57	-3,790.44	-69.77	3,790.21	0.00	0.00	0.00
9,700.00	90.11	179.82	6,400.38	-3,890.44	-69.46	3,890.21	0.00	0.00	0.00
9,800.00	90.11	179.82	6,400.20	-3,990.44	-69.15	3,990.21	0.00	0.00	0.00
9,900.00	90.11	179.82	6,400.01	-4,090.44	-68.84	4,090.20	0.00	0.00	0.00
10,000.00	90.11	179.82	6,399.82	-4,190.44	-68.52	4,190.20	0.00	0.00	0.00
10,100.00	90.11	179.82	6,399.63	-4,290.44	-68.21	4,290.20	0.00	0.00	0.00
10,200.00	90.11	179.82	6,399.45	-4,390.44	-67.90	4,390.20	0.00	0.00	0.00
10,300.00	90.11	179.82	6,399.26	-4,490.44	-67.58	4,490.20	0.00	0.00	0.00
10,400.00	90.11	179.82	6,399.07	-4,590.44	-67.27	4,590.20	0.00	0.00	0.00
10,500.00	90.11	179.82	6,398.88	-4,690.44	-66.96	4,690.20	0.00	0.00	0.00
10,600.00	90.11	179.82	6,398.70	-4,790.44	-66.65	4,790.20	0.00	0.00	0.00
10,700.00	90.11	179.82	6,398.51	-4,890.44	-66.33	4,890.20	0.00	0.00	0.00
10,800.00	90.11	179.82	6,398.32	-4,990.44	-66.02	4,990.20	0.00	0.00	0.00
10,900.00	90.11	179.82	6,398.14	-5,090.43	-65.71	5,090.20	0.00	0.00	0.00
11,000.00	90.11	179.82	6,397.95	-5,190.43	-65.39	5,190.20	0.00	0.00	0.00
11,100.00	90.11	179.82	6,397.76	-5,290.43	-65.08	5,290.20	0.00	0.00	0.00
11,200.00	90.11	179.82	6,397.57	-5,390.43	-64.77	5,390.20	0.00	0.00	0.00
11,300.00	90.11	179.82	6,397.39	-5,490.43	-64.46	5,490.20	0.00	0.00	0.00
11,400.00	90.11	179.82	6,397.20	-5,590.43	-64.14	5,590.20	0.00	0.00	0.00
11,500.00	90.11	179.82	6,397.01	-5,690.43	-63.83	5,690.20	0.00	0.00	0.00
11,600.00	90.11	179.82	6,396.82	-5,790.43	-63.52	5,790.20	0.00	0.00	0.00
11,700.00	90.11	179.82	6,396.64	-5,890.43	-63.20	5,890.20	0.00	0.00	0.00
11,800.00	90.11	179.82	6,396.45	-5,990.43	-62.89	5,990.20	0.00	0.00	0.00
11,900.00	90.11	179.82	6,396.26	-6,090.43	-62.58	6,090.20	0.00	0.00	0.00
12,000.00	90.11	179.82	6,396.07	-6,190.43	-62.27	6,190.20	0.00	0.00	0.00
12,100.00	90.11	179.82	6,395.89	-6,290.43	-61.95	6,290.20	0.00	0.00	0.00
12,200.00	90.11	179.82	6,395.70	-6,390.43	-61.64	6,390.20	0.00	0.00	0.00
12,300.00	90.11	179.82	6,395.51	-6,490.43	-61.33	6,490.20	0.00	0.00	0.00
12,400.00	90.11	179.82	6,395.33	-6,590.42	-61.01	6,590.20	0.00	0.00	0.00
12,500.00	90.11	179.82	6,395.14	-6,690.42	-60.70	6,690.20	0.00	0.00	0.00
12,600.00	90.11	179.82	6,394.95	-6,790.42	-60.39	6,790.20	0.00	0.00	0.00
12,700.00	90.11	179.82	6,394.76	-6,890.42	-60.07	6,890.20	0.00	0.00	0.00
12,800.00	90.11	179.82	6,394.58	-6,990.42	-59.76	6,990.20	0.00	0.00	0.00
12,900.00	90.11	179.82	6,394.39	-7,090.42	-59.45	7,090.20	0.00	0.00	0.00
13,000.00	90.11	179.82	6,394.20	-7,190.42	-59.14	7,190.20	0.00	0.00	0.00
13,100.00	90.11	179.82	6,394.01	-7,290.42	-58.82	7,290.20	0.00	0.00	0.00
13,200.00	90.11	179.82	6,393.83	-7,390.42	-58.51	7,390.20	0.00	0.00	0.00
13,300.00	90.11	179.82	6,393.64	-7,490.42	-58.20	7,490.20	0.00	0.00	0.00
13,400.00	90.11	179.82	6,393.45	-7,590.42	-57.88	7,590.20	0.00	0.00	0.00

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164C2B
<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 5-62-27-0164C2B	<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	6,393.27	-7,690.42	-57.57	7,690.20	0.00	0.00	0.00	
13,600.00	90.11	179.82	6,393.08	-7,790.42	-57.26	7,790.20	0.00	0.00	0.00	
13,700.00	90.11	179.82	6,392.89	-7,890.42	-56.95	7,890.20	0.00	0.00	0.00	
13,800.00	90.11	179.82	6,392.70	-7,990.42	-56.63	7,990.20	0.00	0.00	0.00	
13,900.00	90.11	179.82	6,392.52	-8,090.41	-56.32	8,090.20	0.00	0.00	0.00	
14,000.00	90.11	179.82	6,392.33	-8,190.41	-56.01	8,190.20	0.00	0.00	0.00	
14,100.00	90.11	179.82	6,392.14	-8,290.41	-55.69	8,290.20	0.00	0.00	0.00	
14,200.00	90.11	179.82	6,391.95	-8,390.41	-55.38	8,390.20	0.00	0.00	0.00	
14,300.00	90.11	179.82	6,391.77	-8,490.41	-55.07	8,490.20	0.00	0.00	0.00	
14,400.00	90.11	179.82	6,391.58	-8,590.41	-54.76	8,590.20	0.00	0.00	0.00	
14,500.00	90.11	179.82	6,391.39	-8,690.41	-54.44	8,690.20	0.00	0.00	0.00	
14,600.00	90.11	179.82	6,391.21	-8,790.41	-54.13	8,790.20	0.00	0.00	0.00	
14,700.00	90.11	179.82	6,391.02	-8,890.41	-53.82	8,890.20	0.00	0.00	0.00	
14,800.00	90.11	179.82	6,390.83	-8,990.41	-53.50	8,990.20	0.00	0.00	0.00	
14,900.00	90.11	179.82	6,390.64	-9,090.41	-53.19	9,090.20	0.00	0.00	0.00	
15,000.00	90.11	179.82	6,390.46	-9,190.41	-52.88	9,190.20	0.00	0.00	0.00	
15,100.00	90.11	179.82	6,390.27	-9,290.41	-52.56	9,290.20	0.00	0.00	0.00	
15,200.00	90.11	179.82	6,390.08	-9,390.41	-52.25	9,390.20	0.00	0.00	0.00	
15,300.00	90.11	179.82	6,389.89	-9,490.41	-51.94	9,490.20	0.00	0.00	0.00	
15,400.00	90.11	179.82	6,389.71	-9,590.40	-51.63	9,590.20	0.00	0.00	0.00	
15,500.00	90.11	179.82	6,389.52	-9,690.40	-51.31	9,690.20	0.00	0.00	0.00	
15,600.00	90.11	179.82	6,389.33	-9,790.40	-51.00	9,790.20	0.00	0.00	0.00	
15,700.00	90.11	179.82	6,389.14	-9,890.40	-50.69	9,890.19	0.00	0.00	0.00	
15,800.00	90.11	179.82	6,388.96	-9,990.40	-50.37	9,990.19	0.00	0.00	0.00	
15,900.00	90.11	179.82	6,388.77	-10,090.40	-50.06	10,090.19	0.00	0.00	0.00	
16,000.00	90.11	179.82	6,388.58	-10,190.40	-49.75	10,190.19	0.00	0.00	0.00	
16,100.00	90.11	179.82	6,388.40	-10,290.40	-49.44	10,290.19	0.00	0.00	0.00	
16,200.00	90.11	179.82	6,388.21	-10,390.40	-49.12	10,390.19	0.00	0.00	0.00	
16,300.00	90.11	179.82	6,388.02	-10,490.40	-48.81	10,490.19	0.00	0.00	0.00	
16,311.11	90.11	179.82	6,388.00	-10,501.51	-48.78	10,501.30	0.00	0.00	0.00	
TD at 16311.12										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
5-62-27-0164C2B PBHL	0.00	0.00	6,388.00	-10,501.51	-48.78	1,372,637.51	3,329,354.35	40° 21' 0.961 N	104° 19' 5.790 W	
- plan hits target center										
- Point										
5-62-27-0164C2B LP	0.00	0.00	6,406.00	-889.23	-78.85	1,382,248.52	3,329,196.17	40° 22' 35.951 N	104° 19' 6.179 W	
- plan misses target center by 0.01ft at 6698.76ft MD (6406.00 TVD, -889.23 N, -78.85 E)										
- Point										

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz State Fed 5-62-27-0164C2B
<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 5-62-27-0164C2B	<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 (°)
4,712.56	4,696.00	BASE OF FOX HILLS		0.00	
5,249.94	5,231.00	SHANNON		0.00	
6,118.98	6,096.00	SHARON SPRINGS		0.00	
6,231.77	6,196.00	NIOBRARA		0.00	
6,542.67	6,381.00	TOP C CHALK TARGET		0.00	
6,566.34	6,388.00	TD (HORIZONTAL)		0.00	
6,695.73	6,406.00	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	
1,069.95	1,069.55	-12.47	-2.44	Start 4179.44 hold at 1069.95 MD	
5,249.39	5,230.45	-398.41	-77.91	Start Drop -2.00	
5,519.34	5,500.00	-410.88	-80.35	Start 428.54 hold at 5519.34 MD	
5,947.88	5,928.54	-410.88	-80.35	Start DLS 12.00 TFO 179.82	
6,698.77	6,406.00	-889.24	-78.85	Start 9612.35 hold at 6698.77 MD	
16,311.11	6,388.00	-10,501.51	-48.78	TD at 16311.12	