

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 5-62-27-0164C2
 Wellbore: OH
 Design: Plan 2



Azimuths to True North
 Magnetic North: 8.19°

Magnetic Field
 Strength: 52539.1snT
 Dip Angle: 66.96°
 Date: 8/26/2016
 Model: BGGM2016

Plan: Plan 2 (Anschutz State Fed 5-62-27-0164C2/OH)

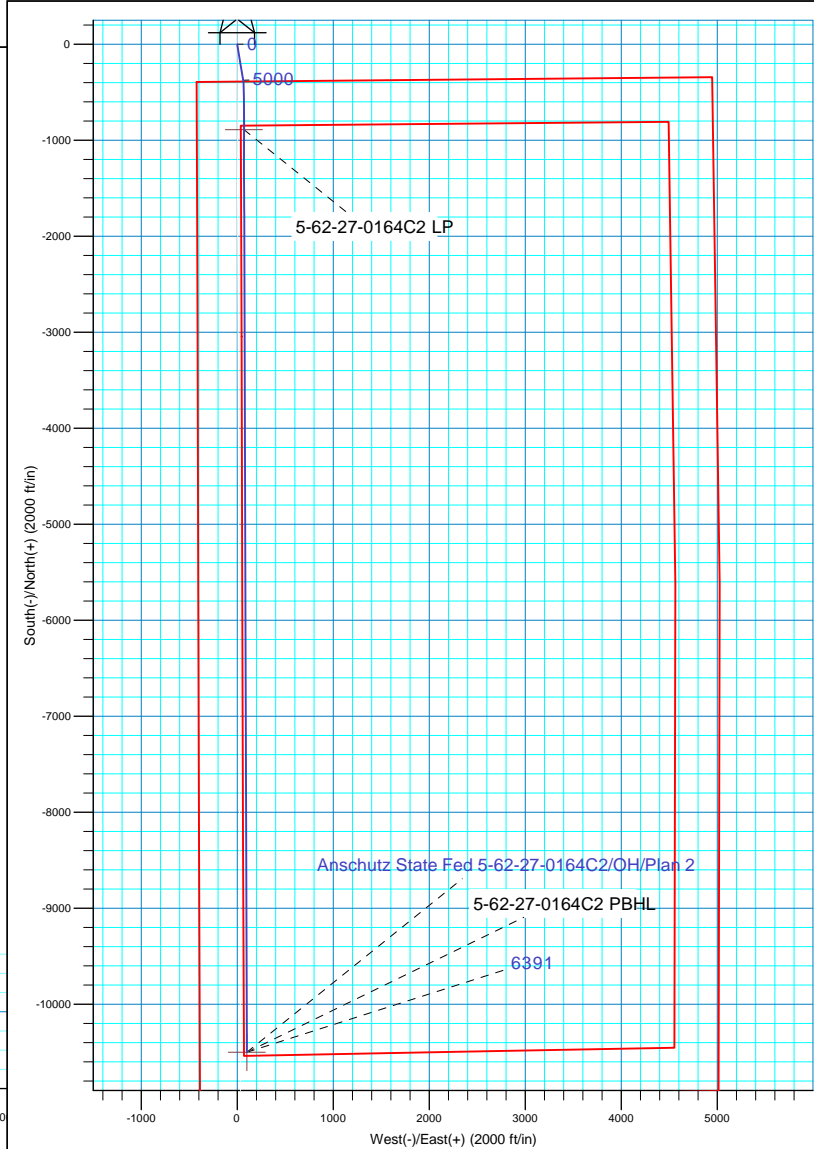
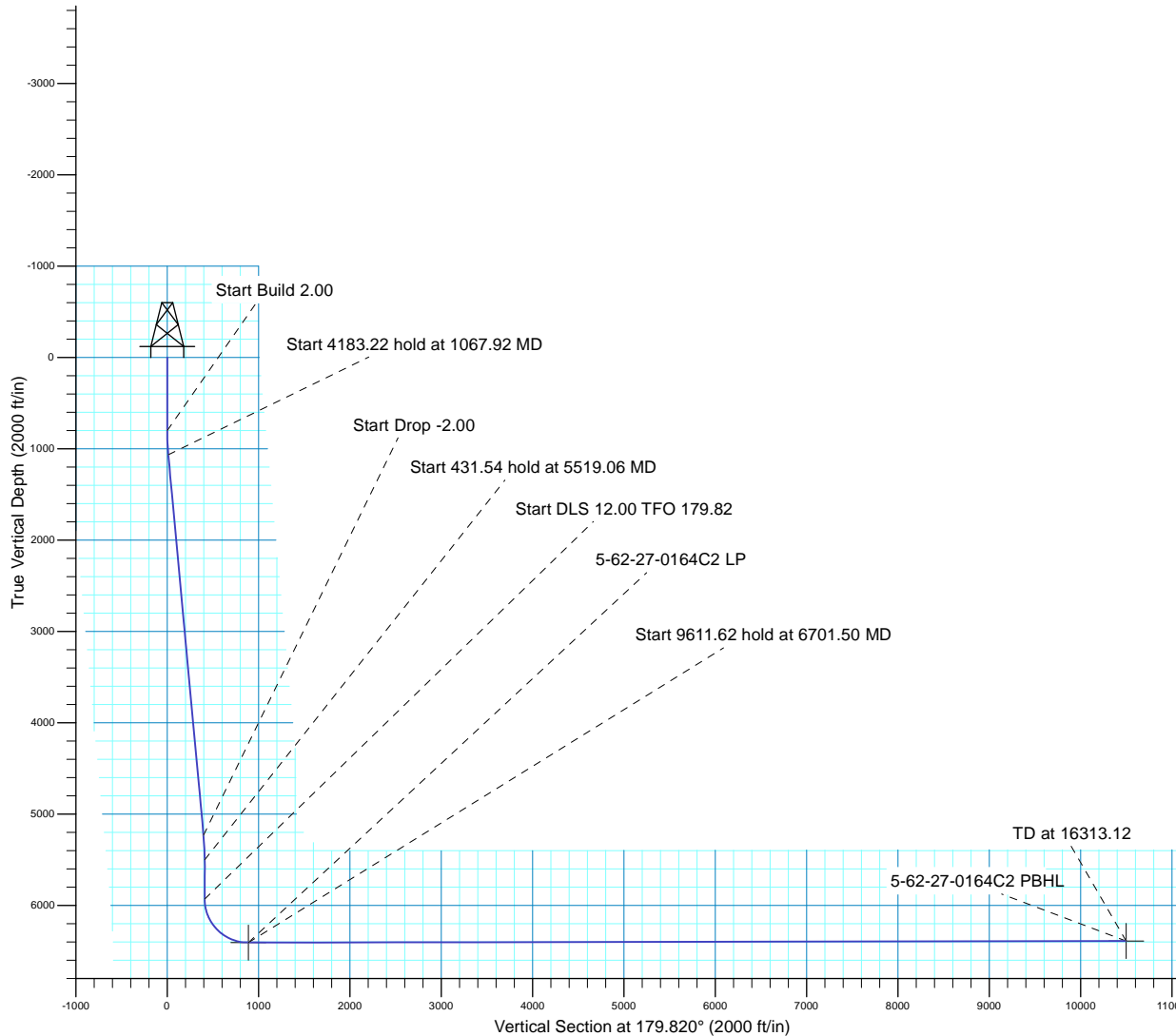
Created By: Seth Burstad Date: 8-26-2016

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00
1067.92	5.36	170.330	1067.53	-12.34	2.10	2.00	170.33	12.35
5251.14	5.36	170.330	5232.47	-397.44	67.72	0.00	0.00	397.66
5519.06	0.00	0.000	5500.00	-409.79	69.82	2.00	180.00	410.00
5950.60	0.00	0.000	5931.54	-409.79	69.82	0.00	0.00	410.00
6701.50	90.11	179.820	6409.00	-888.14	71.32	12.00	179.82	888.36
16313.12	90.11	179.820	6391.00	-10499.70	101.45	0.00	0.00	10499.97

WELL DETAILS: Anschutz State Fed 5-62-27-0164C2

+N/-S	+E/-W	GL 4680' & KB 16' @ 4696.00ft	4680.00	Longitude
Northing	Easting	Latitude		
0.00	0.00	1383138.73	3329263.15	40° 22' 44.738 N
				104° 19' 5.160 W





Bill Barrett Corp.

Weld County, CO NAD 83
Anschutz State 5-62-22_23 SWSW Pad.
Anschutz State Fed 5-62-27-0164C2

OH

Plan: Plan 2

Standard Planning Report

26 August, 2016



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz State Fed 5-62-27-0164C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4680' & KB 16' @ 4696.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4680' & KB 16' @ 4696.00ft
Site:	Anschutz State 5-62-22_23 SWSW Pad.	North Reference:	True
Well:	Anschutz State Fed 5-62-27-0164C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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

Site						Anschutz 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 5-62-27-0164C2, 389' FSL 415' FWL Sec 22 T5N R62W					
Well Position	+N/-S	-0.01 ft	Northing:	1,383,138.73 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

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	11/11/2015	8.26	67.02	52,634
	BGGM2016	8/26/2016	8.19	66.96	52,539

Design	Plan 2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	179.820

Plan Sections										
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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,067.92	5.36	170.330	1,067.53	-12.34	2.10	2.00	2.00	0.00	170.33	
5,251.14	5.36	170.330	5,232.47	-397.44	67.72	0.00	0.00	0.00	0.00	
5,519.06	0.00	0.000	5,500.00	-409.79	69.82	2.00	-2.00	0.00	180.00	
5,950.60	0.00	0.000	5,931.54	-409.79	69.82	0.00	0.00	0.00	0.00	
6,701.50	90.11	179.820	6,409.00	-888.14	71.32	12.00	12.00	23.95	179.82	
16,313.12	90.11	179.820	6,391.00	-10,499.70	101.45	0.00	0.00	0.00	0.00	5-62-27-0164C2 PBH

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz State Fed 5-62-27-0164C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4680' & KB 16' @ 4696.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4680' & KB 16' @ 4696.00ft
Site:	Anschutz State 5-62-22_23 SWSW Pad.	North Reference:	True
Well:	Anschutz State Fed 5-62-27-0164C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
900.00	2.00	170.330	899.98	-1.72	0.29	1.72	2.00	2.00	0.00
1,000.00	4.00	170.330	999.84	-6.88	1.17	6.88	2.00	2.00	0.00
1,067.92	5.36	170.330	1,067.53	-12.34	2.10	12.35	2.00	2.00	0.00
Start 4183.22 hold at 1067.92 MD									
1,100.00	5.36	170.330	1,099.47	-15.29	2.61	15.30	0.00	0.00	0.00
1,200.00	5.36	170.330	1,199.03	-24.50	4.17	24.51	0.00	0.00	0.00
1,300.00	5.36	170.330	1,298.60	-33.71	5.74	33.72	0.00	0.00	0.00
1,400.00	5.36	170.330	1,398.16	-42.91	7.31	42.93	0.00	0.00	0.00
1,500.00	5.36	170.330	1,497.72	-52.12	8.88	52.15	0.00	0.00	0.00
1,600.00	5.36	170.330	1,597.28	-61.32	10.45	61.36	0.00	0.00	0.00
1,700.00	5.36	170.330	1,696.85	-70.53	12.02	70.57	0.00	0.00	0.00
1,800.00	5.36	170.330	1,796.41	-79.74	13.59	79.78	0.00	0.00	0.00
1,900.00	5.36	170.330	1,895.97	-88.94	15.15	88.99	0.00	0.00	0.00
2,000.00	5.36	170.330	1,995.54	-98.15	16.72	98.20	0.00	0.00	0.00
2,100.00	5.36	170.330	2,095.10	-107.35	18.29	107.41	0.00	0.00	0.00
2,200.00	5.36	170.330	2,194.66	-116.56	19.86	116.62	0.00	0.00	0.00
2,300.00	5.36	170.330	2,294.23	-125.77	21.43	125.83	0.00	0.00	0.00
2,400.00	5.36	170.330	2,393.79	-134.97	23.00	135.04	0.00	0.00	0.00
2,500.00	5.36	170.330	2,493.35	-144.18	24.57	144.25	0.00	0.00	0.00
2,600.00	5.36	170.330	2,592.91	-153.38	26.14	153.46	0.00	0.00	0.00
2,700.00	5.36	170.330	2,692.48	-162.59	27.70	162.68	0.00	0.00	0.00
2,800.00	5.36	170.330	2,792.04	-171.79	29.27	171.89	0.00	0.00	0.00
2,900.00	5.36	170.330	2,891.60	-181.00	30.84	181.10	0.00	0.00	0.00
3,000.00	5.36	170.330	2,991.17	-190.21	32.41	190.31	0.00	0.00	0.00
3,100.00	5.36	170.330	3,090.73	-199.41	33.98	199.52	0.00	0.00	0.00
3,200.00	5.36	170.330	3,190.29	-208.62	35.55	208.73	0.00	0.00	0.00
3,300.00	5.36	170.330	3,289.86	-217.82	37.12	217.94	0.00	0.00	0.00
3,400.00	5.36	170.330	3,389.42	-227.03	38.68	227.15	0.00	0.00	0.00
3,500.00	5.36	170.330	3,488.98	-236.24	40.25	236.36	0.00	0.00	0.00
3,600.00	5.36	170.330	3,588.54	-245.44	41.82	245.57	0.00	0.00	0.00
3,700.00	5.36	170.330	3,688.11	-254.65	43.39	254.78	0.00	0.00	0.00
3,800.00	5.36	170.330	3,787.67	-263.85	44.96	263.99	0.00	0.00	0.00
3,900.00	5.36	170.330	3,887.23	-273.06	46.53	273.20	0.00	0.00	0.00
4,000.00	5.36	170.330	3,986.80	-282.27	48.10	282.42	0.00	0.00	0.00
4,100.00	5.36	170.330	4,086.36	-291.47	49.66	291.63	0.00	0.00	0.00
4,200.00	5.36	170.330	4,185.92	-300.68	51.23	300.84	0.00	0.00	0.00
4,300.00	5.36	170.330	4,285.49	-309.88	52.80	310.05	0.00	0.00	0.00
4,400.00	5.36	170.330	4,385.05	-319.09	54.37	319.26	0.00	0.00	0.00
4,500.00	5.36	170.330	4,484.61	-328.30	55.94	328.47	0.00	0.00	0.00
4,600.00	5.36	170.330	4,584.17	-337.50	57.51	337.68	0.00	0.00	0.00
4,700.00	5.36	170.330	4,683.74	-346.71	59.08	346.89	0.00	0.00	0.00
4,800.00	5.36	170.330	4,783.30	-355.91	60.64	356.10	0.00	0.00	0.00
4,900.00	5.36	170.330	4,882.86	-365.12	62.21	365.31	0.00	0.00	0.00
5,000.00	5.36	170.330	4,982.43	-374.32	63.78	374.52	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz State Fed 5-62-27-0164C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4680' & KB 16' @ 4696.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4680' & KB 16' @ 4696.00ft
Site:	Anschutz State 5-62-22_23 SWSW Pad.	North Reference:	True
Well:	Anschutz State Fed 5-62-27-0164C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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)	
5,100.00	5.36	170.330	5,081.99	-383.53	65.35	383.73	0.00	0.00	0.00	
5,200.00	5.36	170.330	5,181.55	-392.74	66.92	392.95	0.00	0.00	0.00	
5,251.14	5.36	170.330	5,232.47	-397.44	67.72	397.66	0.00	0.00	0.00	
Start Drop -2.00										
5,300.00	4.38	170.330	5,281.15	-401.53	68.42	401.75	2.00	-2.00	0.00	
5,400.00	2.38	170.330	5,380.97	-407.35	69.41	407.56	2.00	-2.00	0.00	
5,500.00	0.38	170.330	5,480.94	-409.72	69.81	409.94	2.00	-2.00	0.00	
5,519.06	0.00	0.000	5,500.00	-409.79	69.82	410.00	2.00	-2.00	0.00	
Start 431.54 hold at 5519.06 MD										
5,600.00	0.00	0.000	5,580.94	-409.79	69.82	410.00	0.00	0.00	0.00	
5,700.00	0.00	0.000	5,680.94	-409.79	69.82	410.00	0.00	0.00	0.00	
5,800.00	0.00	0.000	5,780.94	-409.79	69.82	410.00	0.00	0.00	0.00	
5,900.00	0.00	0.000	5,880.94	-409.79	69.82	410.00	0.00	0.00	0.00	
5,950.60	0.00	0.000	5,931.54	-409.79	69.82	410.00	0.00	0.00	0.00	
Start DLS 12.00 TFO 179.82										
6,000.00	5.93	179.820	5,980.85	-412.34	69.83	412.56	12.00	12.00	0.00	
6,100.00	17.93	179.820	6,078.51	-432.97	69.90	433.19	12.00	12.00	0.00	
6,200.00	29.93	179.820	6,169.75	-473.45	70.02	473.67	12.00	12.00	0.00	
6,300.00	41.93	179.820	6,250.58	-532.02	70.21	532.24	12.00	12.00	0.00	
6,400.00	53.93	179.820	6,317.46	-606.12	70.44	606.33	12.00	12.00	0.00	
6,500.00	65.93	179.820	6,367.48	-692.50	70.71	692.72	12.00	12.00	0.00	
6,600.00	77.93	179.820	6,398.45	-787.39	71.01	787.61	12.00	12.00	0.00	
6,700.00	89.93	179.820	6,409.00	-886.65	71.32	886.87	12.00	12.00	0.00	
6,701.50	90.11	179.820	6,409.00	-888.14	71.32	888.36	12.00	12.00	0.00	
Start 9611.62 hold at 6701.50 MD										
6,800.00	90.11	179.820	6,408.82	-986.65	71.63	986.87	0.00	0.00	0.00	
6,900.00	90.11	179.820	6,408.63	-1,086.65	71.95	1,086.87	0.00	0.00	0.00	
7,000.00	90.11	179.820	6,408.44	-1,186.64	72.26	1,186.87	0.00	0.00	0.00	
7,100.00	90.11	179.820	6,408.26	-1,286.64	72.57	1,286.87	0.00	0.00	0.00	
7,200.00	90.11	179.820	6,408.07	-1,386.64	72.89	1,386.87	0.00	0.00	0.00	
7,300.00	90.11	179.820	6,407.88	-1,486.64	73.20	1,486.87	0.00	0.00	0.00	
7,400.00	90.11	179.820	6,407.70	-1,586.64	73.51	1,586.87	0.00	0.00	0.00	
7,500.00	90.11	179.820	6,407.51	-1,686.64	73.83	1,686.87	0.00	0.00	0.00	
7,600.00	90.11	179.820	6,407.32	-1,786.64	74.14	1,786.87	0.00	0.00	0.00	
7,700.00	90.11	179.820	6,407.13	-1,886.64	74.45	1,886.86	0.00	0.00	0.00	
7,800.00	90.11	179.820	6,406.95	-1,986.64	74.77	1,986.86	0.00	0.00	0.00	
7,900.00	90.11	179.820	6,406.76	-2,086.64	75.08	2,086.86	0.00	0.00	0.00	
8,000.00	90.11	179.820	6,406.57	-2,186.64	75.39	2,186.86	0.00	0.00	0.00	
8,100.00	90.11	179.820	6,406.38	-2,286.64	75.71	2,286.86	0.00	0.00	0.00	
8,200.00	90.11	179.820	6,406.20	-2,386.64	76.02	2,386.86	0.00	0.00	0.00	
8,300.00	90.11	179.820	6,406.01	-2,486.64	76.33	2,486.86	0.00	0.00	0.00	
8,400.00	90.11	179.820	6,405.82	-2,586.64	76.65	2,586.86	0.00	0.00	0.00	
8,500.00	90.11	179.820	6,405.64	-2,686.63	76.96	2,686.86	0.00	0.00	0.00	
8,600.00	90.11	179.820	6,405.45	-2,786.63	77.27	2,786.86	0.00	0.00	0.00	
8,700.00	90.11	179.820	6,405.26	-2,886.63	77.59	2,886.86	0.00	0.00	0.00	
8,800.00	90.11	179.820	6,405.07	-2,986.63	77.90	2,986.86	0.00	0.00	0.00	
8,900.00	90.11	179.820	6,404.89	-3,086.63	78.22	3,086.86	0.00	0.00	0.00	
9,000.00	90.11	179.820	6,404.70	-3,186.63	78.53	3,186.86	0.00	0.00	0.00	
9,100.00	90.11	179.820	6,404.51	-3,286.63	78.84	3,286.86	0.00	0.00	0.00	
9,200.00	90.11	179.820	6,404.32	-3,386.63	79.16	3,386.86	0.00	0.00	0.00	
9,300.00	90.11	179.820	6,404.14	-3,486.63	79.47	3,486.86	0.00	0.00	0.00	
9,400.00	90.11	179.820	6,403.95	-3,586.63	79.78	3,586.86	0.00	0.00	0.00	
9,500.00	90.11	179.820	6,403.76	-3,686.63	80.10	3,686.86	0.00	0.00	0.00	

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz State Fed 5-62-27-0164C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4680' & KB 16' @ 4696.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4680' & KB 16' @ 4696.00ft
Site:	Anschutz State 5-62-22_23 SWSW Pad.	North Reference:	True
Well:	Anschutz State Fed 5-62-27-0164C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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)
9,600.00	90.11	179.820	6,403.57	-3,786.63	80.41	3,786.86	0.00	0.00	0.00
9,700.00	90.11	179.820	6,403.39	-3,886.63	80.72	3,886.86	0.00	0.00	0.00
9,800.00	90.11	179.820	6,403.20	-3,986.63	81.04	3,986.86	0.00	0.00	0.00
9,900.00	90.11	179.820	6,403.01	-4,086.63	81.35	4,086.86	0.00	0.00	0.00
10,000.00	90.11	179.820	6,402.83	-4,186.62	81.66	4,186.86	0.00	0.00	0.00
10,100.00	90.11	179.820	6,402.64	-4,286.62	81.98	4,286.86	0.00	0.00	0.00
10,200.00	90.11	179.820	6,402.45	-4,386.62	82.29	4,386.86	0.00	0.00	0.00
10,300.00	90.11	179.820	6,402.26	-4,486.62	82.60	4,486.86	0.00	0.00	0.00
10,400.00	90.11	179.820	6,402.08	-4,586.62	82.92	4,586.86	0.00	0.00	0.00
10,500.00	90.11	179.820	6,401.89	-4,686.62	83.23	4,686.86	0.00	0.00	0.00
10,600.00	90.11	179.820	6,401.70	-4,786.62	83.54	4,786.86	0.00	0.00	0.00
10,700.00	90.11	179.820	6,401.51	-4,886.62	83.86	4,886.86	0.00	0.00	0.00
10,800.00	90.11	179.820	6,401.33	-4,986.62	84.17	4,986.86	0.00	0.00	0.00
10,900.00	90.11	179.820	6,401.14	-5,086.62	84.48	5,086.86	0.00	0.00	0.00
11,000.00	90.11	179.820	6,400.95	-5,186.62	84.80	5,186.86	0.00	0.00	0.00
11,100.00	90.11	179.820	6,400.77	-5,286.62	85.11	5,286.86	0.00	0.00	0.00
11,200.00	90.11	179.820	6,400.58	-5,386.62	85.42	5,386.86	0.00	0.00	0.00
11,300.00	90.11	179.820	6,400.39	-5,486.62	85.74	5,486.86	0.00	0.00	0.00
11,400.00	90.11	179.820	6,400.20	-5,586.62	86.05	5,586.86	0.00	0.00	0.00
11,500.00	90.11	179.820	6,400.02	-5,686.62	86.37	5,686.86	0.00	0.00	0.00
11,600.00	90.11	179.820	6,399.83	-5,786.61	86.68	5,786.86	0.00	0.00	0.00
11,700.00	90.11	179.820	6,399.64	-5,886.61	86.99	5,886.86	0.00	0.00	0.00
11,800.00	90.11	179.820	6,399.45	-5,986.61	87.31	5,986.86	0.00	0.00	0.00
11,900.00	90.11	179.820	6,399.27	-6,086.61	87.62	6,086.86	0.00	0.00	0.00
12,000.00	90.11	179.820	6,399.08	-6,186.61	87.93	6,186.86	0.00	0.00	0.00
12,100.00	90.11	179.820	6,398.89	-6,286.61	88.25	6,286.86	0.00	0.00	0.00
12,200.00	90.11	179.820	6,398.70	-6,386.61	88.56	6,386.86	0.00	0.00	0.00
12,300.00	90.11	179.820	6,398.52	-6,486.61	88.87	6,486.86	0.00	0.00	0.00
12,400.00	90.11	179.820	6,398.33	-6,586.61	89.19	6,586.86	0.00	0.00	0.00
12,500.00	90.11	179.820	6,398.14	-6,686.61	89.50	6,686.86	0.00	0.00	0.00
12,600.00	90.11	179.820	6,397.96	-6,786.61	89.81	6,786.86	0.00	0.00	0.00
12,700.00	90.11	179.820	6,397.77	-6,886.61	90.13	6,886.86	0.00	0.00	0.00
12,800.00	90.11	179.820	6,397.58	-6,986.61	90.44	6,986.86	0.00	0.00	0.00
12,900.00	90.11	179.820	6,397.39	-7,086.61	90.75	7,086.86	0.00	0.00	0.00
13,000.00	90.11	179.820	6,397.21	-7,186.61	91.07	7,186.86	0.00	0.00	0.00
13,100.00	90.11	179.820	6,397.02	-7,286.60	91.38	7,286.86	0.00	0.00	0.00
13,200.00	90.11	179.820	6,396.83	-7,386.60	91.69	7,386.86	0.00	0.00	0.00
13,300.00	90.11	179.820	6,396.64	-7,486.60	92.01	7,486.86	0.00	0.00	0.00
13,400.00	90.11	179.820	6,396.46	-7,586.60	92.32	7,586.85	0.00	0.00	0.00
13,500.00	90.11	179.820	6,396.27	-7,686.60	92.63	7,686.85	0.00	0.00	0.00
13,600.00	90.11	179.820	6,396.08	-7,786.60	92.95	7,786.85	0.00	0.00	0.00
13,700.00	90.11	179.820	6,395.89	-7,886.60	93.26	7,886.85	0.00	0.00	0.00
13,800.00	90.11	179.820	6,395.71	-7,986.60	93.57	7,986.85	0.00	0.00	0.00
13,900.00	90.11	179.820	6,395.52	-8,086.60	93.89	8,086.85	0.00	0.00	0.00
14,000.00	90.11	179.820	6,395.33	-8,186.60	94.20	8,186.85	0.00	0.00	0.00
14,100.00	90.11	179.820	6,395.15	-8,286.60	94.52	8,286.85	0.00	0.00	0.00
14,200.00	90.11	179.820	6,394.96	-8,386.60	94.83	8,386.85	0.00	0.00	0.00
14,300.00	90.11	179.820	6,394.77	-8,486.60	95.14	8,486.85	0.00	0.00	0.00
14,400.00	90.11	179.820	6,394.58	-8,586.60	95.46	8,586.85	0.00	0.00	0.00
14,500.00	90.11	179.820	6,394.40	-8,686.60	95.77	8,686.85	0.00	0.00	0.00
14,600.00	90.11	179.820	6,394.21	-8,786.59	96.08	8,786.85	0.00	0.00	0.00
14,700.00	90.11	179.820	6,394.02	-8,886.59	96.40	8,886.85	0.00	0.00	0.00
14,800.00	90.11	179.820	6,393.83	-8,986.59	96.71	8,986.85	0.00	0.00	0.00
14,900.00	90.11	179.820	6,393.65	-9,086.59	97.02	9,086.85	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz State Fed 5-62-27-0164C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4680' & KB 16' @ 4696.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4680' & KB 16' @ 4696.00ft
Site:	Anschutz State 5-62-22_23 SWSW Pad.	North Reference:	True
Well:	Anschutz State Fed 5-62-27-0164C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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)	
15,000.00	90.11	179.820	6,393.46	-9,186.59	97.34	9,186.85	0.00	0.00	0.00	
15,100.00	90.11	179.820	6,393.27	-9,286.59	97.65	9,286.85	0.00	0.00	0.00	
15,200.00	90.11	179.820	6,393.09	-9,386.59	97.96	9,386.85	0.00	0.00	0.00	
15,300.00	90.11	179.820	6,392.90	-9,486.59	98.28	9,486.85	0.00	0.00	0.00	
15,400.00	90.11	179.820	6,392.71	-9,586.59	98.59	9,586.85	0.00	0.00	0.00	
15,500.00	90.11	179.820	6,392.52	-9,686.59	98.90	9,686.85	0.00	0.00	0.00	
15,600.00	90.11	179.820	6,392.34	-9,786.59	99.22	9,786.85	0.00	0.00	0.00	
15,700.00	90.11	179.820	6,392.15	-9,886.59	99.53	9,886.85	0.00	0.00	0.00	
15,800.00	90.11	179.820	6,391.96	-9,986.59	99.84	9,986.85	0.00	0.00	0.00	
15,900.00	90.11	179.820	6,391.77	-10,086.59	100.16	10,086.85	0.00	0.00	0.00	
16,000.00	90.11	179.820	6,391.59	-10,186.59	100.47	10,186.85	0.00	0.00	0.00	
16,100.00	90.11	179.820	6,391.40	-10,286.58	100.78	10,286.85	0.00	0.00	0.00	
16,200.00	90.11	179.820	6,391.21	-10,386.58	101.10	10,386.85	0.00	0.00	0.00	
16,300.00	90.11	179.820	6,391.02	-10,486.58	101.41	10,486.85	0.00	0.00	0.00	
16,313.12	90.11	179.820	6,391.00	-10,499.70	101.45	10,499.97	0.00	0.00	0.00	
TD at 16313.12										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
5-62-27-0164C2 PBHL	0.00	0.000	6,391.00	-10,499.70	101.45	1,372,641.34	3,329,504.54	40° 21' 0.979 N	104° 19' 3.850 W	
- plan hits target center										
- Point										
5-62-27-0164C2 LP	0.00	0.000	6,409.00	-888.15	71.32	1,382,251.62	3,329,346.31	40° 22' 35.962 N	104° 19' 4.238 W	
- plan hits target center										
- Point										

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	
1,067.92	1,067.53	-12.34	2.10	Start 4183.22 hold at 1067.92 MD	
5,251.14	5,232.47	-397.44	67.72	Start Drop -2.00	
5,519.06	5,500.00	-409.79	69.82	Start 431.54 hold at 5519.06 MD	
5,950.60	5,931.54	-409.79	69.82	Start DLS 12.00 TFO 179.82	
6,701.50	6,409.00	-888.14	71.32	Start 9611.62 hold at 6701.50 MD	
16,313.12	6,391.00	-10,499.70	101.45	TD at 16313.12	