



Bill Barrett Corporation

Bill Barrett Corp.

Weld Co., CO

Sec.22-T5N-R62W

Anschutz State 5-62-22-1609B2

Wellbore #1

Plan: Design #1

Standard Planning Report

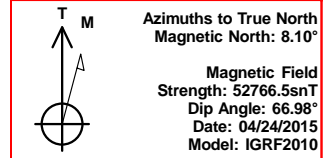
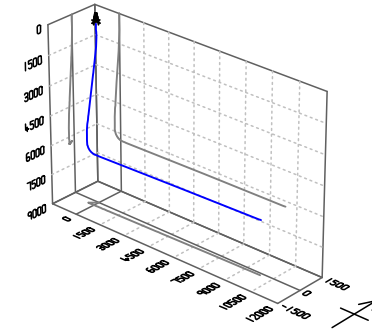
27 April, 2015

Archer



Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.22-T5N-R62W
Well: Anschutz State 5-62-22-1609B2
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 23' 26.801 N
Long: 104° 19' 4.861 W
Pad GL: 4730.00
KB: Well @ 4746.00usft

Archer



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1237.84	6.76	227.35	1237.06	-13.48	-14.63	2.00	227.35	-14.88	Start 3846.14 hold at 1237.84 MD
5083.98	6.76	227.35	5056.48	-320.08	-347.46	0.00	0.00	-353.37	Start Drop -2.00
5421.82	0.00	0.00	5393.54	-333.56	-362.09	2.00	180.00	-368.26	Start 500.02 hold at 5421.82 MD
5921.84	0.00	0.00	5893.56	-333.56	-362.09	0.00	0.00	-368.26	Start Build 12.00
6676.74	90.59	88.93	6371.00	-324.55	120.19	12.00	88.93	114.11	Start 9742.13 hold at 6676.74 MD
16418.87	90.59	88.93	6271.00	-142.66	9860.11	0.00	0.00	9855.72	TD at 16418.87

WELL DETAILS: Anschutz State 5-62-22-1609B2

+N/-S	+E/-W	Northing	Ground Level:	4730.00	Latitude	Longitude	Slot
0.00	0.00	1387395.099	Easting	3329229.538	40° 23' 26.801 N	104° 19' 4.861 W	

PROJECT DETAILS: Weld Co., CO

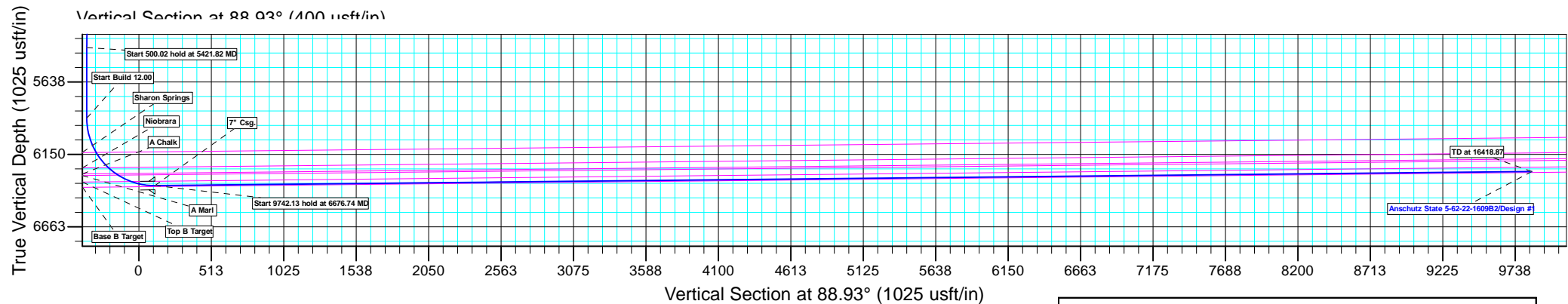
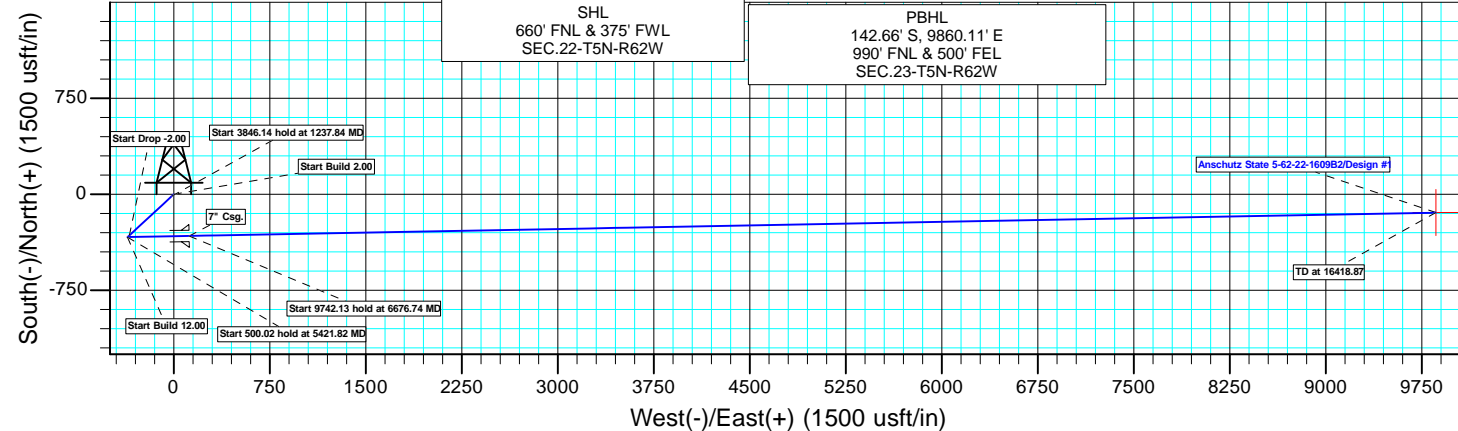
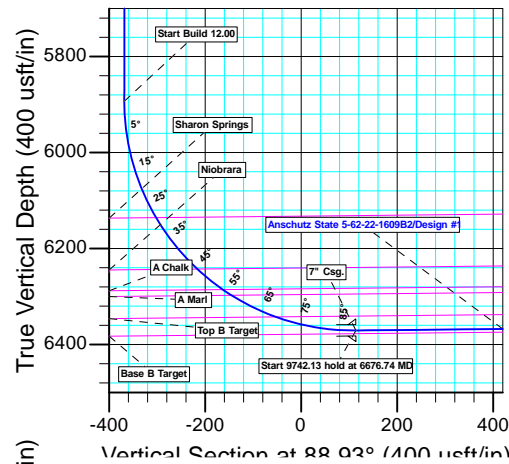
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name
6371.00	6676.74	7" Csg.

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
Anschutz State 5-62-22-1609B2 tgt	6271.00	-142.66	9860.11	40° 23' 25.372 N	104° 16' 57.428 W	



Plan: Design #1 (Anschutz State 5-62-22-1609B2/Wellbore #1)

Created By: Ricky Osburn Date: 8:41, April 27 2015

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4746.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4746.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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

Site	Sec.22-T5N-R62W				
Site Position:		Northing:	1,387,395.099 usft	Latitude:	40° 23' 26.801 N
From:	Lat/Long	Easting:	3,329,229.538 usft	Longitude:	104° 19' 4.861 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.76 °

Well	Anschutz State 5-62-22-1609B2					
Well Position	+N/-S	0.00 usft	Northing:	1,387,395.099 usft	Latitude:	40° 23' 26.801 N
	+E/-W	0.00 usft	Easting:	3,329,229.538 usft	Longitude:	104° 19' 4.861 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,730.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/04/24	8.10	66.98	52,767

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	88.93

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,237.84	6.76	227.35	1,237.06	-13.48	-14.63	2.00	2.00	0.00	227.35	
5,083.98	6.76	227.35	5,056.48	-320.08	-347.46	0.00	0.00	0.00	0.00	
5,421.82	0.00	0.00	5,393.54	-333.56	-362.09	2.00	-2.00	0.00	180.00	
5,921.84	0.00	0.00	5,893.56	-333.56	-362.09	0.00	0.00	0.00	0.00	
6,676.74	90.59	88.93	6,371.00	-324.55	120.19	12.00	12.00	0.00	88.93	Anschut State 5-62-22-
16,418.87	90.59	88.93	6,271.00	-142.66	9,860.11	0.00	0.00	0.00	0.00	Anschut State 5-62-22-

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4746.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4746.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
Start Build 2.00									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	2.00	227.35	999.98	-1.18	-1.28	-1.31	2.00	2.00	0.00
1,100.00	4.00	227.35	1,099.84	-4.73	-5.13	-5.22	2.00	2.00	0.00
1,200.00	6.00	227.35	1,199.45	-10.63	-11.54	-11.74	2.00	2.00	0.00
Start 3846.14 hold at 1237.84 MD									
1,237.84	6.76	227.35	1,237.06	-13.48	-14.63	-14.88	2.00	2.00	0.00
1,300.00	6.76	227.35	1,298.79	-18.44	-20.01	-20.35	0.00	0.00	0.00
1,400.00	6.76	227.35	1,398.09	-26.41	-28.67	-29.15	0.00	0.00	0.00
1,500.00	6.76	227.35	1,497.40	-34.38	-37.32	-37.96	0.00	0.00	0.00
1,600.00	6.76	227.35	1,596.70	-42.35	-45.97	-46.76	0.00	0.00	0.00
1,700.00	6.76	227.35	1,696.01	-50.32	-54.63	-55.56	0.00	0.00	0.00
1,800.00	6.76	227.35	1,795.31	-58.29	-63.28	-64.36	0.00	0.00	0.00
1,900.00	6.76	227.35	1,894.62	-66.27	-71.93	-73.16	0.00	0.00	0.00
2,000.00	6.76	227.35	1,993.92	-74.24	-80.59	-81.96	0.00	0.00	0.00
2,100.00	6.76	227.35	2,093.23	-82.21	-89.24	-90.76	0.00	0.00	0.00
2,200.00	6.76	227.35	2,192.53	-90.18	-97.89	-99.56	0.00	0.00	0.00
2,300.00	6.76	227.35	2,291.84	-98.15	-106.55	-108.36	0.00	0.00	0.00
2,400.00	6.76	227.35	2,391.15	-106.12	-115.20	-117.16	0.00	0.00	0.00
2,500.00	6.76	227.35	2,490.45	-114.10	-123.85	-125.96	0.00	0.00	0.00
2,600.00	6.76	227.35	2,589.76	-122.07	-132.51	-134.76	0.00	0.00	0.00
2,700.00	6.76	227.35	2,689.06	-130.04	-141.16	-143.56	0.00	0.00	0.00
2,800.00	6.76	227.35	2,788.37	-138.01	-149.81	-152.37	0.00	0.00	0.00
2,900.00	6.76	227.35	2,887.67	-145.98	-158.47	-161.17	0.00	0.00	0.00
3,000.00	6.76	227.35	2,986.98	-153.95	-167.12	-169.97	0.00	0.00	0.00
3,100.00	6.76	227.35	3,086.28	-161.92	-175.77	-178.77	0.00	0.00	0.00
3,200.00	6.76	227.35	3,185.59	-169.90	-184.43	-187.57	0.00	0.00	0.00
3,300.00	6.76	227.35	3,284.89	-177.87	-193.08	-196.37	0.00	0.00	0.00
3,400.00	6.76	227.35	3,384.20	-185.84	-201.73	-205.17	0.00	0.00	0.00
3,500.00	6.76	227.35	3,483.51	-193.81	-210.39	-213.97	0.00	0.00	0.00
3,600.00	6.76	227.35	3,582.81	-201.78	-219.04	-222.77	0.00	0.00	0.00
3,700.00	6.76	227.35	3,682.12	-209.75	-227.69	-231.57	0.00	0.00	0.00
3,800.00	6.76	227.35	3,781.42	-217.73	-236.35	-240.37	0.00	0.00	0.00
3,900.00	6.76	227.35	3,880.73	-225.70	-245.00	-249.17	0.00	0.00	0.00
4,000.00	6.76	227.35	3,980.03	-233.67	-253.65	-257.97	0.00	0.00	0.00
4,100.00	6.76	227.35	4,079.34	-241.64	-262.31	-266.77	0.00	0.00	0.00
4,200.00	6.76	227.35	4,178.64	-249.61	-270.96	-275.58	0.00	0.00	0.00
Sussex									
4,219.35	6.76	227.35	4,197.86	-251.15	-272.64	-277.28	0.00	0.00	0.00
4,300.00	6.76	227.35	4,277.95	-257.58	-279.61	-284.38	0.00	0.00	0.00
4,400.00	6.76	227.35	4,377.25	-265.55	-288.27	-293.18	0.00	0.00	0.00
4,500.00	6.76	227.35	4,476.56	-273.53	-296.92	-301.98	0.00	0.00	0.00
4,600.00	6.76	227.35	4,575.87	-281.50	-305.58	-310.78	0.00	0.00	0.00
4,700.00	6.76	227.35	4,675.17	-289.47	-314.23	-319.58	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4746.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4746.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,800.00	6.76	227.35	4,774.48	-297.44	-322.88	-328.38	0.00	0.00	0.00	
4,900.00	6.76	227.35	4,873.78	-305.41	-331.54	-337.18	0.00	0.00	0.00	
5,000.00	6.76	227.35	4,973.09	-313.38	-340.19	-345.98	0.00	0.00	0.00	
Shannon										
5,033.74	6.76	227.35	5,006.59	-316.07	-343.11	-348.95	0.00	0.00	0.00	
Start Drop -2.00										
5,083.98	6.76	227.35	5,056.48	-320.08	-347.46	-353.37	0.00	0.00	0.00	
5,100.00	6.44	227.35	5,072.40	-321.33	-348.81	-354.75	2.00	-2.00	0.00	
5,200.00	4.44	227.35	5,171.94	-327.74	-355.78	-361.84	2.00	-2.00	0.00	
5,300.00	2.44	227.35	5,271.76	-331.81	-360.19	-366.32	2.00	-2.00	0.00	
5,400.00	0.44	227.35	5,371.72	-333.50	-362.03	-368.19	2.00	-2.00	0.00	
Start 500.02 hold at 5421.82 MD										
5,421.82	0.00	0.00	5,393.54	-333.56	-362.09	-368.26	2.00	-2.00	0.00	
5,500.00	0.00	0.00	5,471.72	-333.56	-362.09	-368.26	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,571.72	-333.56	-362.09	-368.26	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,671.72	-333.56	-362.09	-368.26	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,771.72	-333.56	-362.09	-368.26	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,871.72	-333.56	-362.09	-368.26	0.00	0.00	0.00	
Start Build 12.00										
5,921.84	0.00	0.00	5,893.56	-333.56	-362.09	-368.26	0.00	0.00	0.00	
5,925.00	0.38	88.93	5,896.72	-333.56	-362.08	-368.25	12.00	12.00	0.00	
5,950.00	3.38	88.93	5,921.71	-333.54	-361.26	-367.43	12.00	12.00	0.00	
5,975.00	6.38	88.93	5,946.61	-333.50	-359.13	-365.30	12.00	12.00	0.00	
6,000.00	9.38	88.93	5,971.37	-333.44	-355.71	-361.87	12.00	12.00	0.00	
6,025.00	12.38	88.93	5,995.92	-333.35	-350.99	-357.15	12.00	12.00	0.00	
6,050.00	15.38	88.93	6,020.19	-333.24	-345.00	-351.16	12.00	12.00	0.00	
6,075.00	18.38	88.93	6,044.11	-333.11	-337.74	-343.90	12.00	12.00	0.00	
6,100.00	21.38	88.93	6,067.62	-332.95	-329.24	-335.40	12.00	12.00	0.00	
6,125.00	24.38	88.93	6,090.65	-332.77	-319.52	-325.68	12.00	12.00	0.00	
6,150.00	27.38	88.93	6,113.14	-332.56	-308.61	-314.77	12.00	12.00	0.00	
6,175.00	30.38	88.93	6,135.03	-332.34	-296.54	-302.70	12.00	12.00	0.00	
Sharon Springs										
6,176.26	30.53	88.93	6,136.11	-332.32	-295.91	-302.06	12.00	12.00	0.00	
6,200.00	33.38	88.93	6,156.25	-332.09	-283.34	-289.50	12.00	12.00	0.00	
6,225.00	36.38	88.93	6,176.76	-331.82	-269.05	-275.20	12.00	12.00	0.00	
6,250.00	39.38	88.93	6,196.49	-331.54	-253.71	-259.85	12.00	12.00	0.00	
6,275.00	42.38	88.93	6,215.39	-331.23	-237.35	-243.49	12.00	12.00	0.00	
6,300.00	45.38	88.93	6,233.41	-330.91	-220.03	-226.17	12.00	12.00	0.00	
Niobrara										
6,314.19	47.08	88.93	6,243.22	-330.72	-209.78	-215.92	12.00	12.00	0.00	
6,325.00	48.38	88.93	6,250.49	-330.57	-201.78	-207.92	12.00	12.00	0.00	
6,350.00	51.38	88.93	6,266.60	-330.21	-182.67	-188.81	12.00	12.00	0.00	
6,375.00	54.38	88.93	6,281.69	-329.84	-162.74	-168.87	12.00	12.00	0.00	
A Chalk										
6,381.93	55.21	88.93	6,285.68	-329.73	-157.08	-163.21	12.00	12.00	0.00	
6,400.00	57.38	88.93	6,295.71	-329.45	-142.05	-148.18	12.00	12.00	0.00	
A Marl										
6,403.34	57.78	88.93	6,297.50	-329.40	-139.24	-145.36	12.00	12.00	0.00	
6,425.00	60.38	88.93	6,308.63	-329.05	-120.66	-126.78	12.00	12.00	0.00	
6,450.00	63.38	88.93	6,320.41	-328.64	-98.61	-104.73	12.00	12.00	0.00	
6,475.00	66.38	88.93	6,331.02	-328.22	-75.98	-82.10	12.00	12.00	0.00	
6,500.00	69.38	88.93	6,340.44	-327.78	-52.83	-58.94	12.00	12.00	0.00	
Top B Target										

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4746.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4746.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,506.10	70.11	88.93	6,342.55	-327.68	-47.11	-53.22	12.00	12.00	0.00
6,525.00	72.38	88.93	6,348.62	-327.34	-29.22	-35.33	12.00	12.00	0.00
6,550.00	75.38	88.93	6,355.56	-326.90	-5.21	-11.31	12.00	12.00	0.00
6,575.00	78.38	88.93	6,361.24	-326.44	19.13	13.03	12.00	12.00	0.00
6,600.00	81.38	88.93	6,365.63	-325.98	43.74	37.64	12.00	12.00	0.00
6,625.00	84.38	88.93	6,368.73	-325.52	68.54	62.45	12.00	12.00	0.00
6,650.00	87.38	88.93	6,370.53	-325.05	93.46	87.38	12.00	12.00	0.00
Start 9742.13 hold at 6676.74 MD - 7" Csg.									
6,676.74	90.59	88.93	6,371.00	-324.55	120.19	114.11	12.00	12.00	0.00
6,700.00	90.59	88.93	6,370.76	-324.12	143.45	137.37	0.00	0.00	0.00
6,800.00	90.59	88.93	6,369.73	-322.25	243.42	237.36	0.00	0.00	0.00
6,900.00	90.59	88.93	6,368.71	-320.38	343.40	337.36	0.00	0.00	0.00
7,000.00	90.59	88.93	6,367.68	-318.52	443.38	437.35	0.00	0.00	0.00
7,100.00	90.59	88.93	6,366.66	-316.65	543.36	537.35	0.00	0.00	0.00
7,200.00	90.59	88.93	6,365.63	-314.78	643.33	637.34	0.00	0.00	0.00
7,300.00	90.59	88.93	6,364.60	-312.92	743.31	737.34	0.00	0.00	0.00
7,400.00	90.59	88.93	6,363.58	-311.05	843.29	837.33	0.00	0.00	0.00
7,500.00	90.59	88.93	6,362.55	-309.18	943.27	937.33	0.00	0.00	0.00
7,600.00	90.59	88.93	6,361.52	-307.32	1,043.24	1,037.32	0.00	0.00	0.00
7,700.00	90.59	88.93	6,360.50	-305.45	1,143.22	1,137.32	0.00	0.00	0.00
7,800.00	90.59	88.93	6,359.47	-303.58	1,243.20	1,237.31	0.00	0.00	0.00
7,900.00	90.59	88.93	6,358.44	-301.71	1,343.17	1,337.31	0.00	0.00	0.00
8,000.00	90.59	88.93	6,357.42	-299.85	1,443.15	1,437.30	0.00	0.00	0.00
8,100.00	90.59	88.93	6,356.39	-297.98	1,543.13	1,537.30	0.00	0.00	0.00
8,200.00	90.59	88.93	6,355.36	-296.11	1,643.11	1,637.29	0.00	0.00	0.00
8,300.00	90.59	88.93	6,354.34	-294.25	1,743.08	1,737.29	0.00	0.00	0.00
8,400.00	90.59	88.93	6,353.31	-292.38	1,843.06	1,837.28	0.00	0.00	0.00
8,500.00	90.59	88.93	6,352.29	-290.51	1,943.04	1,937.27	0.00	0.00	0.00
8,600.00	90.59	88.93	6,351.26	-288.64	2,043.02	2,037.27	0.00	0.00	0.00
8,700.00	90.59	88.93	6,350.23	-286.78	2,142.99	2,137.26	0.00	0.00	0.00
8,800.00	90.59	88.93	6,349.21	-284.91	2,242.97	2,237.26	0.00	0.00	0.00
8,900.00	90.59	88.93	6,348.18	-283.04	2,342.95	2,337.25	0.00	0.00	0.00
9,000.00	90.59	88.93	6,347.15	-281.18	2,442.92	2,437.25	0.00	0.00	0.00
9,100.00	90.59	88.93	6,346.13	-279.31	2,542.90	2,537.24	0.00	0.00	0.00
9,200.00	90.59	88.93	6,345.10	-277.44	2,642.88	2,637.24	0.00	0.00	0.00
9,300.00	90.59	88.93	6,344.07	-275.57	2,742.86	2,737.23	0.00	0.00	0.00
9,400.00	90.59	88.93	6,343.05	-273.71	2,842.83	2,837.23	0.00	0.00	0.00
9,500.00	90.59	88.93	6,342.02	-271.84	2,942.81	2,937.22	0.00	0.00	0.00
9,600.00	90.59	88.93	6,340.99	-269.97	3,042.79	3,037.22	0.00	0.00	0.00
9,700.00	90.59	88.93	6,339.97	-268.11	3,142.77	3,137.21	0.00	0.00	0.00
9,800.00	90.59	88.93	6,338.94	-266.24	3,242.74	3,237.21	0.00	0.00	0.00
9,900.00	90.59	88.93	6,337.92	-264.37	3,342.72	3,337.20	0.00	0.00	0.00
10,000.00	90.59	88.93	6,336.89	-262.50	3,442.70	3,437.20	0.00	0.00	0.00
10,100.00	90.59	88.93	6,335.86	-260.64	3,542.68	3,537.19	0.00	0.00	0.00
10,200.00	90.59	88.93	6,334.84	-258.77	3,642.65	3,637.19	0.00	0.00	0.00
10,300.00	90.59	88.93	6,333.81	-256.90	3,742.63	3,737.18	0.00	0.00	0.00
10,400.00	90.59	88.93	6,332.78	-255.04	3,842.61	3,837.17	0.00	0.00	0.00
10,500.00	90.59	88.93	6,331.76	-253.17	3,942.58	3,937.17	0.00	0.00	0.00
10,600.00	90.59	88.93	6,330.73	-251.30	4,042.56	4,037.16	0.00	0.00	0.00
10,700.00	90.59	88.93	6,329.70	-249.43	4,142.54	4,137.16	0.00	0.00	0.00
10,800.00	90.59	88.93	6,328.68	-247.57	4,242.52	4,237.15	0.00	0.00	0.00
10,900.00	90.59	88.93	6,327.65	-245.70	4,342.49	4,337.15	0.00	0.00	0.00
11,000.00	90.59	88.93	6,326.62	-243.83	4,442.47	4,437.14	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4746.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4746.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,100.00	90.59	88.93	6,325.60	-241.97	4,542.45	4,537.14	0.00	0.00	0.00
11,200.00	90.59	88.93	6,324.57	-240.10	4,642.43	4,637.13	0.00	0.00	0.00
11,300.00	90.59	88.93	6,323.55	-238.23	4,742.40	4,737.13	0.00	0.00	0.00
11,400.00	90.59	88.93	6,322.52	-236.37	4,842.38	4,837.12	0.00	0.00	0.00
11,500.00	90.59	88.93	6,321.49	-234.50	4,942.36	4,937.12	0.00	0.00	0.00
11,600.00	90.59	88.93	6,320.47	-232.63	5,042.33	5,037.11	0.00	0.00	0.00
11,700.00	90.59	88.93	6,319.44	-230.76	5,142.31	5,137.11	0.00	0.00	0.00
11,800.00	90.59	88.93	6,318.41	-228.90	5,242.29	5,237.10	0.00	0.00	0.00
11,900.00	90.59	88.93	6,317.39	-227.03	5,342.27	5,337.10	0.00	0.00	0.00
12,000.00	90.59	88.93	6,316.36	-225.16	5,442.24	5,437.09	0.00	0.00	0.00
12,100.00	90.59	88.93	6,315.33	-223.30	5,542.22	5,537.08	0.00	0.00	0.00
12,200.00	90.59	88.93	6,314.31	-221.43	5,642.20	5,637.08	0.00	0.00	0.00
12,300.00	90.59	88.93	6,313.28	-219.56	5,742.18	5,737.07	0.00	0.00	0.00
12,400.00	90.59	88.93	6,312.25	-217.69	5,842.15	5,837.07	0.00	0.00	0.00
12,500.00	90.59	88.93	6,311.23	-215.83	5,942.13	5,937.06	0.00	0.00	0.00
12,600.00	90.59	88.93	6,310.20	-213.96	6,042.11	6,037.06	0.00	0.00	0.00
12,700.00	90.59	88.93	6,309.18	-212.09	6,142.08	6,137.05	0.00	0.00	0.00
12,800.00	90.59	88.93	6,308.15	-210.23	6,242.06	6,237.05	0.00	0.00	0.00
12,900.00	90.59	88.93	6,307.12	-208.36	6,342.04	6,337.04	0.00	0.00	0.00
13,000.00	90.59	88.93	6,306.10	-206.49	6,442.02	6,437.04	0.00	0.00	0.00
13,100.00	90.59	88.93	6,305.07	-204.62	6,541.99	6,537.03	0.00	0.00	0.00
13,200.00	90.59	88.93	6,304.04	-202.76	6,641.97	6,637.03	0.00	0.00	0.00
13,300.00	90.59	88.93	6,303.02	-200.89	6,741.95	6,737.02	0.00	0.00	0.00
13,400.00	90.59	88.93	6,301.99	-199.02	6,841.93	6,837.02	0.00	0.00	0.00
13,500.00	90.59	88.93	6,300.96	-197.16	6,941.90	6,937.01	0.00	0.00	0.00
13,600.00	90.59	88.93	6,299.94	-195.29	7,041.88	7,037.01	0.00	0.00	0.00
13,700.00	90.59	88.93	6,298.91	-193.42	7,141.86	7,137.00	0.00	0.00	0.00
13,800.00	90.59	88.93	6,297.88	-191.55	7,241.84	7,237.00	0.00	0.00	0.00
13,900.00	90.59	88.93	6,296.86	-189.69	7,341.81	7,336.99	0.00	0.00	0.00
14,000.00	90.59	88.93	6,295.83	-187.82	7,441.79	7,436.98	0.00	0.00	0.00
14,100.00	90.59	88.93	6,294.81	-185.95	7,541.77	7,536.98	0.00	0.00	0.00
14,200.00	90.59	88.93	6,293.78	-184.09	7,641.74	7,636.97	0.00	0.00	0.00
14,300.00	90.59	88.93	6,292.75	-182.22	7,741.72	7,736.97	0.00	0.00	0.00
14,400.00	90.59	88.93	6,291.73	-180.35	7,841.70	7,836.96	0.00	0.00	0.00
14,500.00	90.59	88.93	6,290.70	-178.48	7,941.68	7,936.96	0.00	0.00	0.00
14,600.00	90.59	88.93	6,289.67	-176.62	8,041.65	8,036.95	0.00	0.00	0.00
14,700.00	90.59	88.93	6,288.65	-174.75	8,141.63	8,136.95	0.00	0.00	0.00
14,800.00	90.59	88.93	6,287.62	-172.88	8,241.61	8,236.94	0.00	0.00	0.00
14,900.00	90.59	88.93	6,286.59	-171.02	8,341.59	8,336.94	0.00	0.00	0.00
15,000.00	90.59	88.93	6,285.57	-169.15	8,441.56	8,436.93	0.00	0.00	0.00
15,100.00	90.59	88.93	6,284.54	-167.28	8,541.54	8,536.93	0.00	0.00	0.00
15,200.00	90.59	88.93	6,283.51	-165.42	8,641.52	8,636.92	0.00	0.00	0.00
15,300.00	90.59	88.93	6,282.49	-163.55	8,741.49	8,736.92	0.00	0.00	0.00
15,400.00	90.59	88.93	6,281.46	-161.68	8,841.47	8,836.91	0.00	0.00	0.00
15,500.00	90.59	88.93	6,280.44	-159.81	8,941.45	8,936.91	0.00	0.00	0.00
15,600.00	90.59	88.93	6,279.41	-157.95	9,041.43	9,036.90	0.00	0.00	0.00
15,700.00	90.59	88.93	6,278.38	-156.08	9,141.40	9,136.90	0.00	0.00	0.00
15,800.00	90.59	88.93	6,277.36	-154.21	9,241.38	9,236.89	0.00	0.00	0.00
15,900.00	90.59	88.93	6,276.33	-152.35	9,341.36	9,336.88	0.00	0.00	0.00
16,000.00	90.59	88.93	6,275.30	-150.48	9,441.34	9,436.88	0.00	0.00	0.00
16,100.00	90.59	88.93	6,274.28	-148.61	9,541.31	9,536.87	0.00	0.00	0.00
16,200.00	90.59	88.93	6,273.25	-146.74	9,641.29	9,636.87	0.00	0.00	0.00
16,300.00	90.59	88.93	6,272.22	-144.88	9,741.27	9,736.86	0.00	0.00	0.00
16,400.00	90.59	88.93	6,271.20	-143.01	9,841.25	9,836.86	0.00	0.00	0.00

Database:	EDMDBBW	Local Co-ordinate Reference:	Well Anschutz State 5-62-22-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	Well @ 4746.00usft
Project:	Weld Co., CO	MD Reference:	Well @ 4746.00usft
Site:	Sec.22-T5N-R62W	North Reference:	True
Well:	Anschutz State 5-62-22-1609B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TD at 16418.87									
16,418.87	90.59	88.93	6,271.00	-142.66	9,860.11	9,855.72	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Anschut State 5-62-22-1	0.00	0.00	6,271.00	-142.66	9,860.11	1,387,383.879	3,339,090.672	40° 23' 25.372 N	104° 16' 57.428 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
6,676.74	6,371.00	7" Csg.	7	8-3/4	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,219.35	4,195.00	Sussex		-0.59	88.93
5,033.74	5,003.00	Shannon		-0.59	88.93
6,176.26	6,133.00	Sharon Springs		-0.59	88.93
6,314.19	6,241.00	Niobrara		-0.59	88.93
6,381.93	6,284.00	A Chalk		-0.59	88.93
6,403.34	6,296.00	A Marl		-0.59	88.93
6,506.10	6,342.00	Top B Target		-0.59	88.93

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.00	900.00	0.00	0.00	Start Build 2.00
1,237.84	1,237.06	-13.48	-14.63	Start 3846.14 hold at 1237.84 MD
5,083.98	5,056.48	-320.08	-347.46	Start Drop -2.00
5,421.82	5,393.54	-333.56	-362.09	Start 500.02 hold at 5421.82 MD
5,921.84	5,893.56	-333.56	-362.09	Start Build 12.00
6,676.74	6,371.00	-324.55	120.19	Start 9742.13 hold at 6676.74 MD
16,418.87	6,271.00	-142.66	9,860.11	TD at 16418.87