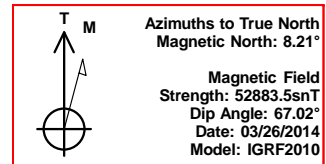
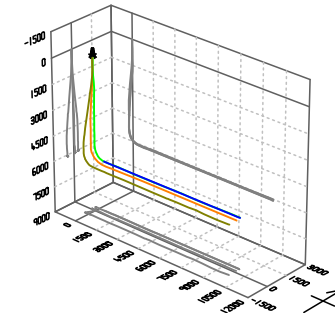




Bill Barrett Corp.  
Project: Weld Co., CO  
Site: Sec.19-T5N-R61W  
Well: Anschutz State 5-61-19-4956BH2  
Wellbore: Wellbore #1  
Design: Design #3  
Lat: 40° 22' 54.210 N  
Long: 104° 15' 38.228 W  
Pad GL: 4530.00  
KB: Well @ 4546.00usft

# Archer



### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
6450.00	88.00	90.00	6055.18	338.06	375.70	0.00	0.00	377.58	Start DLS 2.00 TFO -32.99
6479.81	88.50	89.68	6056.09	338.14	405.49	2.00	-32.99	407.38	Start Build 2.00
6562.52	90.15	89.68	6057.06	338.61	488.19	2.00	0.00	490.08	Start 9312.47 hold at 6562.52 MD
15874.99	90.15	89.68	6032.00	391.39	9800.48	0.00	0.00	9802.51	TD at 15874.99

### WELL DETAILS: Anschutz State 5-61-19-4956BH2

+N/-S	+E/-W	Northing	Ground Level: Easting	4530.00 Latitude	Longitude	Slot
0.00	0.00	1384315.718	3345262.253	40° 22' 54.210 N	104° 15' 38.228 W	

### PROJECT DETAILS: Weld Co., CO

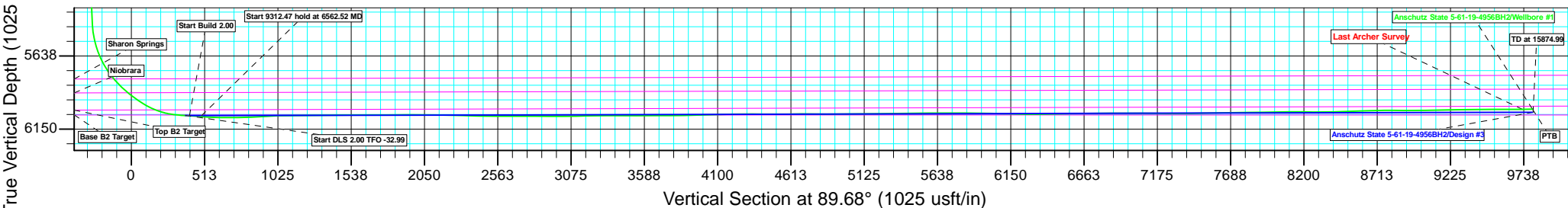
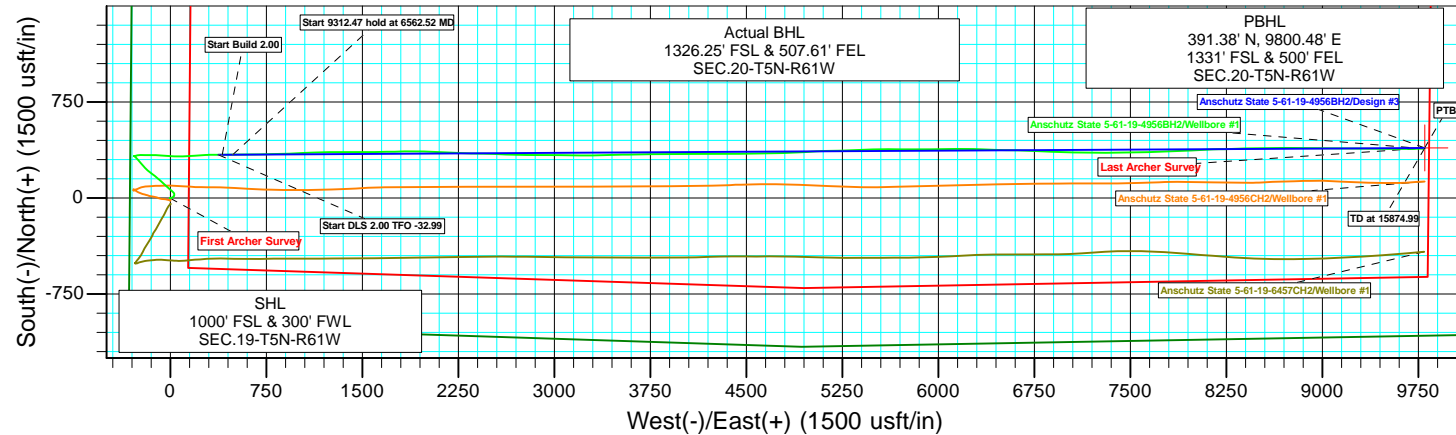
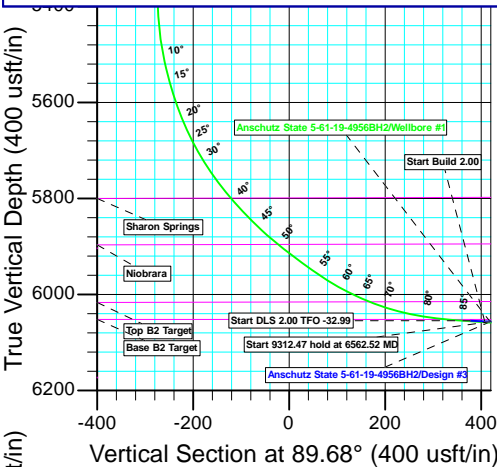
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
System Datum: Mean Sea Level

### CASING DETAILS

TVD	MD	Name
	6395.43	7" Csg.

### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
Anschutz State 5-61-19-4956BH2 tgt	6032.00	391.39	9800.48	40° 22' 58.058 N	104° 13' 31.580 W	



Plan: Design #3 (Anschutz State 5-61-19-4956BH2/Wellbore #1)

Created By: Ricky Osburn

Date: 10:23, October 29 2014



**Bill Barrett Corporation**

## **Bill Barrett Corp.**

**Weld Co., CO**

**Sec.19-T5N-R61W**

**Anschutz State 5-61-19-4956BH2**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**29 October, 2014**

# **Archer**

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz State 5-61-19-4956BH2
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	Well @ 4546.00usft
<b>Site:</b>	Sec.19-T5N-R61W	<b>MD Reference:</b>	Well @ 4546.00usft
<b>Well:</b>	Anschutz State 5-61-19-4956BH2	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

<b>Project</b>	Weld Co., CO		
<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		Sec.19-T5N-R61W			
Site Position:		Northing:	1,385,471.466 usft	Latitude:	40° 23' 5.640 N
From:	Lat/Long	Easting:	3,345,189.543 usft	Longitude:	104° 15' 38.959 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.80 °

Well		Anschutz State 5-61-19-4956BH2				
Well Position	+N/-S	0.00 usft	Northing:	1,384,315.718 usft	Latitude:	40° 22' 54.210 N
	+E/-W	0.00 usft	Easting:	3,345,262.253 usft	Longitude:	104° 15' 38.228 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,530.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2014/03/26	8.21	67.02	52,883

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	89.64	

<b>Survey Program</b>	<b>Date</b>	2014/08/27			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	15,875.00	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.52	247.70	100.00	-0.17	-0.42	-0.42	0.52	0.52	0.00	
200.00	0.52	261.21	199.99	-0.41	-1.29	-1.29	0.12	0.00	13.51	
300.00	0.34	240.85	299.99	-0.63	-2.00	-2.00	0.23	-0.18	-20.36	
400.00	0.27	242.42	399.99	-0.88	-2.46	-2.47	0.07	-0.07	1.57	
500.00	0.15	125.43	499.99	-1.07	-2.57	-2.57	0.36	-0.12	-116.99	
600.00	0.13	190.73	599.99	-1.25	-2.48	-2.49	0.15	-0.02	65.30	
700.00	0.12	205.26	699.99	-1.46	-2.55	-2.56	0.03	-0.01	14.53	
769.00	0.18	234.96	768.99	-1.59	-2.67	-2.68	0.14	0.09	43.04	
<b>First Archer Survey</b>										
907.00	0.30	77.20	906.99	-1.63	-2.49	-2.50	0.34	0.09	-114.32	
1,002.00	3.80	80.00	1,001.91	-1.03	0.85	0.85	3.68	3.68	2.95	
1,094.00	6.10	71.00	1,093.57	1.09	8.48	8.48	2.63	2.50	-9.78	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz State 5-61-19-4956BH2
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	Well @ 4546.00usft
<b>Site:</b>	Sec.19-T5N-R61W	<b>MD Reference:</b>	Well @ 4546.00usft
<b>Well:</b>	Anschutz State 5-61-19-4956BH2	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

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)
1,185.00	8.10	53.30	1,183.87	6.50	18.19	18.23	3.23	2.20	-19.45
1,276.00	6.70	38.40	1,274.12	14.49	26.63	26.72	2.60	-1.54	-16.37
1,368.00	5.80	9.30	1,365.60	23.29	30.72	30.86	3.54	-0.98	-31.63
1,460.00	6.20	342.80	1,457.11	32.62	30.00	30.20	3.01	0.43	-28.80
1,552.00	6.00	316.20	1,548.61	40.84	25.20	25.46	3.05	-0.22	-28.91
1,645.00	7.70	318.20	1,640.94	48.99	17.68	17.99	1.85	1.83	2.15
1,737.00	7.80	309.10	1,732.10	57.53	8.73	9.09	1.34	0.11	-9.89
1,829.00	7.60	305.70	1,823.27	65.01	-1.06	-0.65	0.54	-0.22	-3.70
1,920.00	8.30	314.20	1,913.40	73.10	-10.65	-10.19	1.50	0.77	9.34
2,012.00	8.00	312.60	2,004.47	82.07	-20.12	-19.61	0.41	-0.33	-1.74
2,104.00	8.40	311.90	2,095.53	90.89	-29.84	-29.27	0.45	0.43	-0.76
2,195.00	9.90	315.40	2,185.37	100.90	-40.28	-39.64	1.76	1.65	3.85
2,287.00	9.90	313.40	2,276.00	111.96	-51.58	-50.87	0.37	0.00	-2.17
2,379.00	9.70	310.50	2,366.66	122.43	-63.22	-62.45	0.58	-0.22	-3.15
2,470.00	9.50	311.10	2,456.39	132.35	-74.71	-73.87	0.25	-0.22	0.66
2,562.00	9.50	311.80	2,547.12	142.40	-86.09	-85.19	0.13	0.00	0.76
2,654.00	9.30	309.90	2,637.89	152.23	-97.45	-96.49	0.40	-0.22	-2.07
2,746.00	8.40	309.10	2,728.79	161.23	-108.37	-107.35	0.99	-0.98	-0.87
2,838.00	8.70	310.50	2,819.77	169.99	-118.88	-117.80	0.40	0.33	1.52
2,930.00	9.00	307.10	2,910.68	178.85	-129.91	-128.78	0.66	0.33	-3.70
3,022.00	9.20	306.00	3,001.52	187.51	-141.59	-140.41	0.29	0.22	-1.20
3,113.00	9.80	309.10	3,091.27	196.67	-153.49	-152.25	0.87	0.66	3.41
3,205.00	9.80	305.40	3,181.93	206.15	-165.95	-164.65	0.68	0.00	-4.02
3,296.00	9.70	312.10	3,271.62	215.77	-177.95	-176.59	1.25	-0.11	7.36
3,388.00	10.10	315.60	3,362.25	226.73	-189.35	-187.92	0.79	0.43	3.80
3,480.00	10.40	315.10	3,452.78	238.38	-200.85	-199.35	0.34	0.33	-0.54
3,571.00	10.00	317.80	3,542.34	250.05	-211.96	-210.38	0.68	-0.44	2.97
3,663.00	9.40	319.70	3,633.03	261.70	-222.18	-220.53	0.74	-0.65	2.07
3,755.00	8.70	322.10	3,723.88	272.92	-231.31	-229.60	0.86	-0.76	2.61
3,847.00	7.30	320.20	3,814.98	282.90	-239.33	-237.55	1.55	-1.52	-2.07
3,939.00	6.70	319.20	3,906.30	291.45	-246.58	-244.74	0.67	-0.65	-1.09
4,034.00	6.20	316.00	4,000.70	299.34	-253.76	-251.88	0.65	-0.53	-3.37
4,129.00	5.50	317.00	4,095.20	306.36	-260.43	-258.50	0.74	-0.74	1.05
4,224.00	5.40	319.10	4,189.77	313.07	-266.46	-264.49	0.23	-0.11	2.21
4,318.00	3.90	313.50	4,283.46	318.61	-271.68	-269.67	1.67	-1.60	-5.96
4,413.00	3.60	312.00	4,378.26	322.83	-276.24	-274.21	0.33	-0.32	-1.58
4,507.00	2.40	306.80	4,472.13	325.98	-280.01	-277.95	1.31	-1.28	-5.53
4,602.00	1.30	294.60	4,567.08	327.62	-282.58	-280.52	1.22	-1.16	-12.84
4,697.00	0.30	211.40	4,662.07	327.86	-283.69	-281.62	1.37	-1.05	-87.58
4,791.00	0.20	126.20	4,756.07	327.55	-283.69	-281.62	0.37	-0.11	-90.64
4,886.00	0.10	121.60	4,851.07	327.41	-283.48	-281.42	0.11	-0.11	-4.84
4,982.00	0.30	127.90	4,947.06	327.21	-283.21	-281.15	0.21	0.21	6.56
5,076.00	0.60	79.60	5,041.06	327.15	-282.53	-280.47	0.49	0.32	-51.38
5,171.00	0.80	78.80	5,136.05	327.37	-281.39	-279.33	0.21	0.21	-0.84
5,266.00	1.10	76.10	5,231.04	327.72	-279.86	-277.79	0.32	0.32	-2.84
5,361.00	1.30	72.50	5,326.02	328.26	-277.95	-275.88	0.22	0.21	-3.79
5,456.00	3.30	71.40	5,420.94	329.46	-274.33	-272.25	2.11	2.11	-1.16
5,504.00	8.00	73.20	5,468.69	330.86	-269.82	-267.73	9.80	9.79	3.75
5,551.00	13.20	79.00	5,514.88	332.83	-261.41	-259.32	11.28	11.06	12.34
5,599.00	16.50	85.30	5,561.27	334.44	-249.23	-247.13	7.64	6.87	13.12
5,646.00	18.60	87.60	5,606.08	335.30	-235.09	-232.98	4.70	4.47	4.89
5,694.00	23.70	89.70	5,650.83	335.67	-217.79	-215.67	10.74	10.62	4.37
5,740.00	28.00	91.70	5,692.22	335.40	-197.74	-195.63	9.54	9.35	4.35
5,788.00	33.90	90.80	5,733.37	334.88	-173.07	-170.96	12.33	12.29	-1.87

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz State 5-61-19-4956BH2
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	Well @ 4546.00usft
<b>Site:</b>	Sec.19-T5N-R61W	<b>MD Reference:</b>	Well @ 4546.00usft
<b>Well:</b>	Anschutz State 5-61-19-4956BH2	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

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)	
5,835.00	37.30	89.40	5,771.58	334.84	-145.71	-143.61	7.44	7.23	-2.98	
5,883.00	41.80	92.30	5,808.58	334.35	-115.17	-113.07	10.13	9.37	6.04	
5,930.00	44.30	94.10	5,842.93	332.55	-83.14	-81.05	5.93	5.32	3.83	
5,978.00	48.30	93.60	5,876.08	330.23	-48.52	-46.45	8.37	8.33	-1.04	
6,024.00	52.10	93.20	5,905.52	328.13	-13.25	-11.19	8.29	8.26	-0.87	
6,072.00	54.00	92.60	5,934.38	326.20	25.06	27.11	4.08	3.96	-1.25	
6,119.00	55.80	89.90	5,961.40	325.37	63.49	65.54	6.06	3.83	-5.74	
6,167.00	61.50	88.50	5,986.37	325.96	104.46	106.51	12.13	11.87	-2.92	
6,213.00	65.90	87.30	6,006.74	327.47	145.66	147.72	9.85	9.57	-2.61	
6,260.00	70.70	85.90	6,024.12	330.07	189.24	191.31	10.58	10.21	-2.98	
6,308.00	76.30	85.40	6,037.75	333.56	235.11	237.20	11.71	11.67	-1.04	
6,353.00	81.80	87.20	6,046.29	336.41	279.18	281.29	12.84	12.22	4.00	
6,383.00	83.40	88.90	6,050.15	337.42	308.91	311.03	7.75	5.33	5.67	
6,439.00	86.20	89.40	6,055.23	338.25	364.67	366.79	5.08	5.00	0.89	
6,534.00	86.30	89.20	6,061.44	339.40	459.46	461.58	0.23	0.11	-0.21	
6,629.00	86.80	89.70	6,067.16	340.31	554.28	556.41	0.74	0.53	0.53	
6,724.00	90.20	89.80	6,069.65	340.73	649.24	651.36	3.58	3.58	0.11	
6,818.00	90.10	89.00	6,069.40	341.71	743.23	745.36	0.86	-0.11	-0.85	
6,912.00	93.10	89.20	6,066.78	343.19	837.17	839.31	3.20	3.19	0.21	
7,007.00	93.00	87.40	6,061.72	346.00	931.99	934.15	1.89	-0.11	-1.89	
7,101.00	92.20	87.00	6,057.46	350.59	1,025.78	1,027.96	0.95	-0.85	-0.43	
7,196.00	90.00	87.40	6,055.63	355.23	1,120.64	1,122.85	2.35	-2.32	0.42	
7,291.00	90.70	89.80	6,055.05	357.55	1,215.61	1,217.83	2.63	0.74	2.53	
7,386.00	91.00	89.00	6,053.64	358.55	1,310.59	1,312.82	0.90	0.32	-0.84	
7,480.00	90.50	90.50	6,052.41	358.96	1,404.58	1,406.80	1.68	-0.53	1.60	
7,575.00	90.20	89.90	6,051.83	358.62	1,499.57	1,501.80	0.71	-0.32	-0.63	
7,670.00	90.00	89.50	6,051.67	359.12	1,594.57	1,596.80	0.47	-0.21	-0.42	
7,764.00	89.80	88.10	6,051.83	361.09	1,688.55	1,690.79	1.50	-0.21	-1.49	
7,859.00	90.50	90.00	6,051.58	362.66	1,783.53	1,785.77	2.13	0.74	2.00	
7,954.00	90.40	89.50	6,050.84	363.08	1,878.53	1,880.77	0.54	-0.11	-0.53	
8,049.00	90.20	89.30	6,050.34	364.07	1,973.52	1,975.77	0.30	-0.21	-0.21	
8,143.00	89.30	93.60	6,050.75	361.70	2,067.47	2,069.70	4.67	-0.96	4.57	
8,238.00	89.00	93.20	6,052.16	356.06	2,162.29	2,164.48	0.53	-0.32	-0.42	
8,332.00	88.70	91.90	6,054.04	351.88	2,256.17	2,258.34	1.42	-0.32	-1.38	
8,426.00	87.90	91.90	6,056.83	348.77	2,350.08	2,352.23	0.85	-0.85	0.00	
8,521.00	89.50	91.40	6,058.99	346.03	2,445.01	2,447.14	1.76	1.68	-0.53	
8,615.00	89.70	92.10	6,059.64	343.16	2,538.97	2,541.07	0.77	0.21	0.74	
8,710.00	90.10	92.40	6,059.81	339.43	2,633.89	2,635.97	0.53	0.42	0.32	
8,805.00	89.90	90.80	6,059.81	336.78	2,728.85	2,730.91	1.70	-0.21	-1.68	
8,900.00	89.50	90.10	6,060.31	336.03	2,823.85	2,825.90	0.85	-0.42	-0.74	
8,994.00	89.40	90.20	6,061.21	335.79	2,917.84	2,919.90	0.15	-0.11	0.11	
9,089.00	90.80	91.00	6,061.04	334.79	3,012.83	3,014.88	1.70	1.47	0.84	
9,184.00	90.90	90.40	6,059.64	333.63	3,107.82	3,109.85	0.64	0.11	-0.63	
9,278.00	91.60	90.50	6,057.58	332.89	3,201.79	3,203.82	0.75	0.74	0.11	
9,372.00	90.00	89.20	6,056.27	333.14	3,295.78	3,297.80	2.19	-1.70	-1.38	
9,467.00	90.00	88.60	6,056.27	334.96	3,390.76	3,392.80	0.63	0.00	-0.63	
9,561.00	89.60	88.30	6,056.60	337.51	3,484.72	3,486.77	0.53	-0.43	-0.32	
9,656.00	90.20	89.90	6,056.77	339.00	3,579.71	3,581.77	1.80	0.63	1.68	
9,750.00	90.20	89.30	6,056.44	339.65	3,673.70	3,675.77	0.64	0.00	-0.64	
9,845.00	90.70	89.20	6,055.69	340.90	3,768.69	3,770.76	0.54	0.53	-0.11	
9,937.00	90.20	88.70	6,054.97	342.58	3,860.67	3,862.75	0.77	-0.54	-0.54	
10,028.00	91.90	89.50	6,053.30	344.01	3,951.64	3,953.73	2.06	1.87	0.88	
10,119.00	92.20	89.20	6,050.05	345.04	4,042.58	4,044.67	0.47	0.33	-0.33	
10,211.00	91.50	89.90	6,047.08	345.77	4,134.53	4,136.62	1.08	-0.76	0.76	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz State 5-61-19-4956BH2
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	Well @ 4546.00usft
<b>Site:</b>	Sec.19-T5N-R61W	<b>MD Reference:</b>	Well @ 4546.00usft
<b>Well:</b>	Anschutz State 5-61-19-4956BH2	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

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)	
10,303.00	90.00	89.90	6,045.87	345.93	4,226.52	4,228.61	1.63	-1.63	0.00	
10,395.00	90.00	89.90	6,045.87	346.09	4,318.52	4,320.61	0.00	0.00	0.00	
10,487.00	89.80	90.30	6,046.03	345.93	4,410.52	4,412.60	0.49	-0.22	0.43	
10,579.00	90.10	89.60	6,046.11	346.01	4,502.52	4,504.60	0.83	0.33	-0.76	
10,671.00	90.80	89.10	6,045.39	347.05	4,594.51	4,596.60	0.94	0.76	-0.54	
10,763.00	91.20	89.10	6,043.78	348.50	4,686.48	4,688.58	0.43	0.43	0.00	
10,855.00	89.50	87.70	6,043.22	351.06	4,778.44	4,780.55	2.39	-1.85	-1.52	
10,946.00	89.40	87.50	6,044.10	354.88	4,869.35	4,871.49	0.25	-0.11	-0.22	
11,037.00	89.80	87.10	6,044.73	359.16	4,960.25	4,962.41	0.62	0.44	-0.44	
11,129.00	89.80	86.30	6,045.05	364.46	5,052.10	5,054.29	0.87	0.00	-0.87	
11,221.00	91.20	88.70	6,044.25	368.47	5,144.00	5,146.21	3.02	1.52	2.61	
11,312.00	90.70	88.00	6,042.74	371.09	5,234.94	5,237.17	0.95	-0.55	-0.77	
11,404.00	90.80	88.60	6,041.54	373.82	5,326.90	5,329.14	0.66	0.11	0.65	
11,504.00	90.70	87.70	6,040.23	377.05	5,426.83	5,429.10	0.91	-0.10	-0.90	
11,596.00	91.10	88.50	6,038.78	380.10	5,518.77	5,521.05	0.97	0.43	0.87	
11,687.00	90.10	90.70	6,037.83	380.73	5,609.76	5,612.04	2.66	-1.10	2.42	
11,779.00	90.10	90.50	6,037.67	379.77	5,701.75	5,704.03	0.22	0.00	-0.22	
11,871.00	90.20	89.70	6,037.43	379.61	5,793.75	5,796.02	0.88	0.11	-0.87	
11,962.00	88.60	89.90	6,038.38	379.93	5,884.74	5,887.01	1.77	-1.76	0.22	
12,054.00	89.10	89.20	6,040.23	380.65	5,976.72	5,978.99	0.93	0.54	-0.76	
12,146.00	89.10	88.30	6,041.67	382.65	6,068.69	6,070.97	0.98	0.00	-0.98	
12,237.00	87.80	90.50	6,044.13	383.61	6,159.64	6,161.93	2.81	-1.43	2.42	
12,329.00	88.70	91.40	6,046.94	382.08	6,251.58	6,253.86	1.38	0.98	0.98	
12,421.00	91.40	92.00	6,046.86	379.35	6,343.53	6,345.79	3.01	2.93	0.65	
12,512.00	91.80	91.40	6,044.32	376.66	6,434.46	6,436.70	0.79	0.44	-0.66	
12,604.00	90.20	91.40	6,042.72	374.41	6,526.41	6,528.64	1.74	-1.74	0.00	
12,696.00	90.90	92.00	6,041.83	371.68	6,618.37	6,620.57	1.00	0.76	0.65	
12,788.00	91.00	91.80	6,040.31	368.63	6,710.30	6,712.49	0.24	0.11	-0.22	
12,880.00	90.10	92.50	6,039.43	365.18	6,802.23	6,804.39	1.24	-0.98	0.76	
12,972.00	90.10	92.90	6,039.27	360.84	6,894.13	6,896.26	0.43	0.00	0.43	
13,064.00	90.00	92.30	6,039.18	356.67	6,986.03	6,988.14	0.66	-0.11	-0.65	
13,155.00	89.50	90.40	6,039.58	354.53	7,077.00	7,079.09	2.16	-0.55	-2.09	
13,247.00	89.20	90.00	6,040.63	354.21	7,169.00	7,171.08	0.54	-0.33	-0.43	
13,338.00	89.40	89.30	6,041.74	354.76	7,259.99	7,262.07	0.80	0.22	-0.77	
13,429.00	91.20	90.10	6,041.26	355.24	7,350.98	7,353.07	2.16	1.98	0.88	
13,521.00	90.90	89.50	6,039.58	355.56	7,442.96	7,445.05	0.73	-0.33	-0.65	
13,614.00	90.90	88.90	6,038.11	356.86	7,535.94	7,538.04	0.65	0.00	-0.65	
13,706.00	90.90	88.70	6,036.67	358.78	7,627.91	7,630.02	0.22	0.00	-0.22	
13,797.00	90.80	88.50	6,035.32	361.01	7,718.88	7,720.99	0.25	-0.11	-0.22	
13,892.00	91.10	88.50	6,033.74	363.49	7,813.83	7,815.96	0.32	0.32	0.00	
13,987.00	90.70	86.80	6,032.25	367.39	7,908.73	7,910.89	1.84	-0.42	-1.79	
14,081.00	90.70	86.30	6,031.10	373.04	8,002.56	8,004.74	0.53	0.00	-0.53	
14,176.00	90.90	87.70	6,029.78	378.02	8,097.41	8,099.63	1.49	0.21	1.47	
14,271.00	89.80	88.90	6,029.20	380.83	8,192.37	8,194.60	1.71	-1.16	1.26	
14,366.00	89.20	87.80	6,030.03	383.57	8,287.32	8,289.57	1.32	-0.63	-1.16	
14,460.00	90.00	88.10	6,030.68	386.93	8,381.26	8,383.53	0.91	0.85	0.32	
14,556.00	92.30	89.20	6,028.76	389.19	8,477.21	8,479.48	2.66	2.40	1.15	
14,650.00	92.70	89.00	6,024.66	390.67	8,571.10	8,573.39	0.48	0.43	-0.21	
14,745.00	92.00	90.40	6,020.76	391.16	8,666.02	8,668.31	1.65	-0.74	1.47	
14,840.00	90.20	90.80	6,018.94	390.17	8,760.99	8,763.27	1.94	-1.89	0.42	
14,934.00	89.00	88.70	6,019.59	390.58	8,854.98	8,857.26	2.57	-1.28	-2.23	
15,030.00	90.70	91.20	6,019.84	390.66	8,950.97	8,953.25	3.15	1.77	2.60	
15,124.00	90.90	90.60	6,018.53	389.19	9,044.95	9,047.22	0.67	0.21	-0.64	
15,219.00	90.90	90.70	6,017.04	388.11	9,139.93	9,142.19	0.11	0.00	0.11	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz State 5-61-19-4956BH2
<b>Project:</b>	Weld Co., CO	<b>TVD Reference:</b>	Well @ 4546.00usft
<b>Site:</b>	Sec.19-T5N-R61W	<b>MD Reference:</b>	Well @ 4546.00usft
<b>Well:</b>	Anschutz State 5-61-19-4956BH2	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDMDBBW

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)	
15,314.00	90.80	90.50	6,015.63	387.12	9,234.92	9,237.17	0.24	-0.11	-0.21	
15,409.00	90.70	90.60	6,014.39	386.20	9,329.90	9,332.15	0.15	-0.11	0.11	
15,504.00	91.20	91.00	6,012.81	384.88	9,424.88	9,427.11	0.67	0.53	0.42	
15,599.00	90.00	89.90	6,011.82	384.13	9,519.87	9,522.10	1.71	-1.26	-1.16	
15,694.00	90.00	89.70	6,011.82	384.46	9,614.87	9,617.10	0.21	0.00	-0.21	
15,788.00	90.30	89.70	6,011.57	384.96	9,708.87	9,711.10	0.32	0.32	0.00	
Last Archer Survey										
15,807.00	90.20	89.40	6,011.49	385.10	9,727.87	9,730.09	1.66	-0.53	-1.58	
PTB - Anschutz 5-61-19-4956BH2 tgt										
15,875.00	90.20	89.40	6,011.25	385.82	9,795.86	9,798.09	0.00	0.00	0.00	

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
907.00	906.99	-1.63	-2.49	First Archer Survey	
15,807.00	6,011.49	385.10	9,727.87	Last Archer Survey	
15,875.00	6,011.25	385.82	9,795.86	PTB	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_