



Bill Barrett Corp.
Project: Weld Co., CO
Site: Sec.26-T5N-R62W
Well: Anschutz Windmill #7-26H
Wellbore: Wellbore #1
Design: Design #3
Lat: 40° 22' 35.580 N
Long: 104° 17' 53.362 W
Pad GL: 4641.00
KB: WELL @ 4657.00usft

Archer

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
6544.00	84.64	87.50	6218.26	83.19	-91.06	0.00	0.00	-86.65	Tie-In / Start DLS 8.00° TFO 5.82
6630.19	91.50	88.20	6221.16	86.42	-5.03	8.00	5.82	-0.57	Start 274.20° hold at 6630.19 MD
6904.39	91.50	88.20	6213.98	95.04	268.94	0.00	0.00	273.48	Start Drop -2.00°
6979.39	90.00	88.20	6213.00	97.40	343.90	2.00	180.00	348.46	Start 3958.87° hold at 6979.39 MD
10938.27	90.00	88.20	6213.00	221.88	4300.81	0.00	0.00	4306.53	TD at 10938.26

WELL DETAILS: Anschutz Windmill #7-26H

+N/-S	+E/-W	Northing	Ground Level:	4641.00	Latitude	Longitude	Slot
0.00	0.00	1382286.724	Easting	3334831.533	40° 22' 35.580 N	104° 17' 53.362 W	

WELLBORE TARGET DETAILS (LAT/LONG)

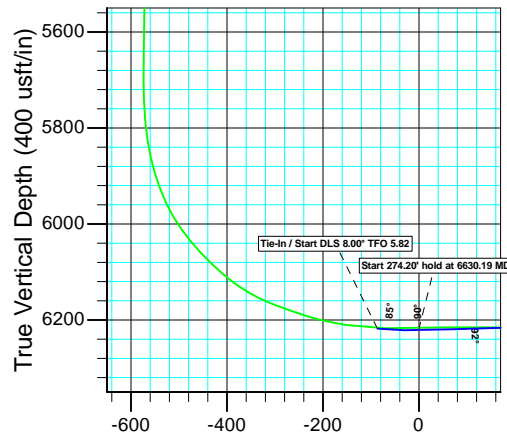
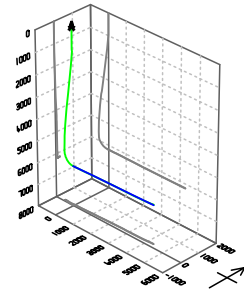
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
AW 7-26H PBHL	6213.00	221.88	4300.81	40° 22' 37.769 N	104° 16' 57.788 W	

CASING DETAILS

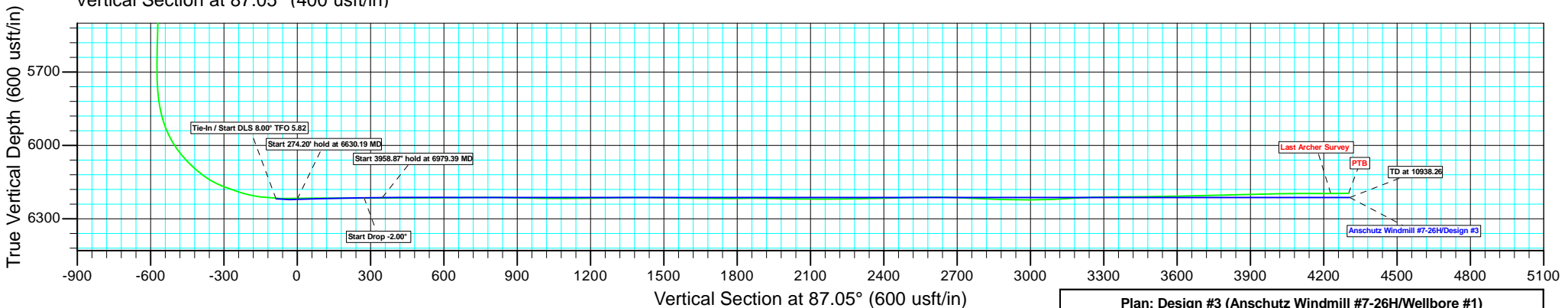
TVD	MD	Name
	800.00	9 5/8"
	6502.69	7"

PROJECT DETAILS: Weld Co., CO

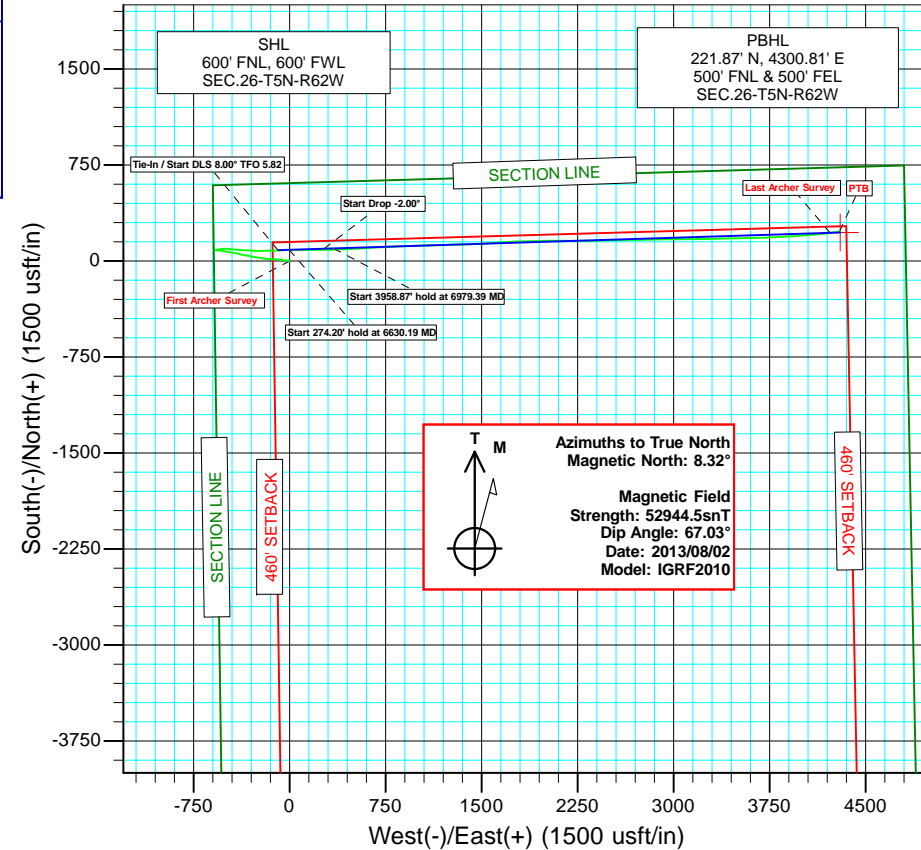
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level



Vertical Section at 87.05° (400 usft/in)



Vertical Section at 87.05° (600 usft/in)



Plan: Design #3 (Anschutz Windmill #7-26H/Wellbore #1)

Created By: Bret Wolford

Date: 10:18, August 13 2013

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Windmill #7-26H
Project:	Weld Co., CO	TVD Reference:	WELL @ 4657.00usft
Site:	Sec.26-T5N-R62W	MD Reference:	WELL @ 4657.00usft
Well:	Anschutz Windmill #7-26H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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.26-T5N-R62W			
Site Position:		Northing:	1,382,286.736 usft	Latitude:	40° 22' 35.580 N
From:	Lat/Long	Easting:	3,334,831.533 usft	Longitude:	104° 17' 53.362 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.78 °

Well	Anschutz Windmill #7-26H					
Well Position	+N/-S	0.00 usft	Northing:	1,382,286.724 usft	Latitude:	40° 22' 35.580 N
	+E/-W	0.00 usft	Easting:	3,334,831.533 usft	Longitude:	104° 17' 53.362 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,641.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2013/08/02	8.32	67.03	52,945

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	87.05	

Survey Program	Date	2013/08/13			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
847.00	10,936.00	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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	
Tie-In / Assumed Vertical										
847.00	0.00	0.00	847.00	0.00	0.00	0.00	0.00	0.00	0.00	
First Archer Survey										
863.00	0.40	12.90	863.00	0.05	0.01	0.02	2.50	2.50	0.00	
955.00	1.10	283.30	954.99	0.57	-0.78	-0.74	1.27	0.76	-97.39	
1,047.00	3.10	275.10	1,046.93	0.99	-4.11	-4.06	2.19	2.17	-8.91	
1,139.00	4.60	271.20	1,138.72	1.29	-10.28	-10.20	1.65	1.63	-4.24	
1,232.00	6.20	274.00	1,231.30	1.72	-19.02	-18.90	1.74	1.72	3.01	
1,323.00	7.70	277.50	1,321.63	2.86	-29.96	-29.78	1.71	1.65	3.85	
1,416.00	8.90	278.30	1,413.65	4.71	-43.26	-42.96	1.30	1.29	0.86	
1,509.00	9.10	279.60	1,505.51	6.98	-57.63	-57.20	0.31	0.22	1.40	
1,572.00	8.90	280.30	1,567.73	8.68	-67.34	-66.80	0.36	-0.32	1.11	

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Windmill #7-26H
Project:	Weld Co., CO	TVD Reference:	WELL @ 4657.00usft
Site:	Sec.26-T5N-R62W	MD Reference:	WELL @ 4657.00usft
Well:	Anschutz Windmill #7-26H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)	
1,666.00	8.10	278.10	1,660.70	10.91	-81.05	-80.38	0.92	-0.85	-2.34	
1,760.00	8.80	275.90	1,753.68	12.58	-94.76	-93.98	0.82	0.74	-2.34	
1,855.00	8.80	273.40	1,847.56	13.76	-109.24	-108.39	0.40	0.00	-2.63	
1,949.00	8.00	268.20	1,940.55	13.98	-122.96	-122.07	1.17	-0.85	-5.53	
2,043.00	8.60	267.20	2,033.57	13.44	-136.51	-135.64	0.66	0.64	-1.06	
2,138.00	8.00	267.10	2,127.57	12.75	-150.21	-149.35	0.63	-0.63	-0.11	
2,232.00	7.60	272.80	2,220.71	12.73	-162.95	-162.08	0.93	-0.43	6.06	
2,326.00	8.40	282.40	2,313.79	14.50	-175.87	-174.89	1.65	0.85	10.21	
2,421.00	8.20	279.60	2,407.80	17.12	-189.32	-188.19	0.47	-0.21	-2.95	
2,515.00	8.70	278.80	2,500.78	19.33	-202.96	-201.69	0.55	0.53	-0.85	
2,610.00	8.70	278.00	2,594.69	21.43	-217.18	-215.78	0.13	0.00	-0.84	
2,712.00	8.90	277.70	2,695.49	23.56	-232.63	-231.11	0.20	0.20	-0.29	
2,775.00	9.20	279.20	2,757.70	25.02	-242.43	-240.82	0.61	0.48	2.38	
2,869.00	8.30	275.90	2,850.61	26.92	-256.60	-254.87	1.10	-0.96	-3.51	
2,964.00	8.30	278.30	2,944.61	28.61	-270.21	-268.37	0.36	0.00	2.53	
3,058.00	8.70	283.90	3,037.58	31.30	-283.82	-281.83	0.98	0.43	5.96	
3,153.00	7.50	284.90	3,131.63	34.62	-296.79	-294.61	1.27	-1.26	1.05	
3,247.00	8.20	282.60	3,224.75	37.66	-309.26	-306.91	0.82	0.74	-2.45	
3,342.00	9.00	277.10	3,318.68	40.06	-323.25	-320.75	1.21	0.84	-5.79	
3,436.00	10.50	279.00	3,411.32	42.30	-339.00	-336.37	1.63	1.60	2.02	
3,530.00	11.70	280.40	3,503.56	45.36	-356.84	-354.03	1.31	1.28	1.49	
3,625.00	12.40	281.70	3,596.47	49.17	-376.30	-373.27	0.79	0.74	1.37	
3,719.00	12.10	283.40	3,688.33	53.50	-395.77	-392.48	0.50	-0.32	1.81	
3,813.00	11.00	282.50	3,780.42	57.73	-414.11	-410.58	1.19	-1.17	-0.96	
3,908.00	9.40	284.20	3,873.92	61.59	-430.48	-426.73	1.71	-1.68	1.79	
4,002.00	7.80	281.00	3,966.86	64.69	-444.18	-440.26	1.78	-1.70	-3.40	
4,097.00	6.60	275.50	4,061.11	66.45	-455.94	-451.91	1.46	-1.26	-5.79	
4,191.00	6.40	277.90	4,154.51	67.68	-466.51	-462.40	0.36	-0.21	2.55	
4,285.00	7.00	281.00	4,247.86	69.50	-477.32	-473.11	0.75	0.64	3.30	
4,380.00	6.70	281.50	4,342.19	71.71	-488.44	-484.09	0.32	-0.32	0.53	
4,474.00	6.20	280.20	4,435.59	73.70	-498.80	-494.35	0.55	-0.53	-1.38	
4,568.00	6.20	280.20	4,529.04	75.50	-508.80	-504.23	0.00	0.00	0.00	
4,663.00	6.50	279.00	4,623.46	77.24	-519.16	-514.49	0.35	0.32	-1.26	
4,757.00	6.90	277.40	4,716.82	78.80	-530.01	-525.25	0.47	0.43	-1.70	
4,852.00	6.80	276.70	4,811.14	80.20	-541.26	-536.40	0.14	-0.11	-0.74	
4,946.00	5.20	274.70	4,904.62	81.19	-551.03	-546.11	1.72	-1.70	-2.13	
5,041.00	3.10	279.10	4,999.37	81.95	-557.86	-552.89	2.23	-2.21	4.63	
5,135.00	2.90	281.70	5,093.24	82.84	-562.69	-557.68	0.26	-0.21	2.77	
5,230.00	2.10	285.50	5,188.15	83.79	-566.72	-561.66	0.86	-0.84	4.00	
5,324.00	1.90	276.90	5,282.09	84.44	-569.93	-564.82	0.38	-0.21	-9.15	
5,418.00	1.60	267.20	5,376.05	84.56	-572.79	-567.67	0.45	-0.32	-10.32	
5,513.00	1.40	260.40	5,471.01	84.30	-575.26	-570.15	0.28	-0.21	-7.16	
5,607.00	1.10	265.00	5,564.99	84.03	-577.29	-572.19	0.34	-0.32	4.89	
5,638.00	1.10	266.20	5,595.98	83.99	-577.88	-572.79	0.07	0.00	3.87	
5,670.00	0.90	264.20	5,627.98	83.94	-578.44	-573.35	0.63	-0.62	-6.25	
5,701.00	0.20	272.50	5,658.98	83.92	-578.74	-573.64	2.27	-2.26	26.77	
5,723.00	0.50	68.30	5,680.98	83.96	-578.68	-573.59	3.12	1.36	708.18	
5,755.00	0.60	72.50	5,712.98	84.06	-578.40	-573.30	0.34	0.31	13.12	
5,786.00	1.30	73.00	5,743.97	84.21	-577.90	-572.80	2.26	2.26	1.61	
5,818.00	4.00	75.70	5,775.94	84.59	-576.48	-571.35	8.44	8.44	8.44	
5,849.00	7.60	75.60	5,806.77	85.37	-573.44	-568.28	11.61	11.61	-0.32	
5,881.00	11.00	75.20	5,838.35	86.67	-568.44	-563.22	10.63	10.62	-1.25	
5,912.00	14.00	79.00	5,868.61	88.15	-561.90	-556.61	10.03	9.68	12.26	
5,944.00	16.90	80.70	5,899.45	89.64	-553.50	-548.15	9.17	9.06	5.31	

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Well:	Anschutz Windmill #7-26H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)	
5,975.00	20.40	83.20	5,928.82	91.00	-543.69	-538.28	11.58	11.29	8.06	
6,007.00	25.50	84.00	5,958.27	92.39	-531.29	-525.83	15.97	15.94	2.50	
6,038.00	30.60	86.00	5,985.62	93.63	-516.78	-511.27	16.73	16.45	6.45	
6,069.00	35.50	89.70	6,011.60	94.23	-499.89	-494.37	17.09	15.81	11.94	
6,101.00	39.90	93.00	6,036.92	93.74	-480.34	-474.87	15.12	13.75	10.31	
6,132.00	43.30	96.70	6,060.10	91.98	-459.84	-454.50	13.53	10.97	11.94	
6,164.00	46.50	97.40	6,082.76	89.21	-437.43	-432.25	10.12	10.00	2.19	
6,196.00	49.80	94.50	6,104.11	86.75	-413.73	-408.71	12.32	10.31	-9.06	
6,227.00	53.80	92.30	6,123.28	85.32	-389.42	-384.50	14.06	12.90	-7.10	
6,258.00	58.90	92.80	6,140.45	84.17	-363.65	-358.83	16.51	16.45	1.61	
6,290.00	64.30	93.60	6,155.67	82.59	-335.55	-330.85	17.02	16.87	2.50	
6,321.00	69.00	94.00	6,167.95	80.71	-307.16	-302.60	15.21	15.16	1.29	
6,353.00	70.50	93.90	6,179.03	78.64	-277.21	-272.79	4.70	4.69	-0.31	
6,384.00	72.20	89.70	6,188.94	77.72	-247.86	-243.53	13.96	5.48	-13.55	
6,415.00	74.50	88.20	6,197.83	78.27	-218.17	-213.85	8.75	7.42	-4.84	
6,447.00	78.90	88.00	6,205.19	79.30	-187.05	-182.72	13.76	13.75	-0.62	
6,478.00	81.70	87.70	6,210.41	80.45	-156.52	-152.17	9.08	9.03	-0.97	
6,562.00	89.00	89.20	6,217.21	82.70	-72.89	-68.53	8.87	8.69	1.79	
6,593.00	91.70	88.70	6,217.03	83.27	-41.90	-37.55	8.86	8.71	-1.61	
6,687.00	90.30	89.60	6,215.39	84.67	52.08	56.37	1.77	-1.49	0.96	
6,781.00	89.50	89.60	6,215.55	85.32	146.07	150.27	0.85	-0.85	0.00	
6,875.00	90.30	89.30	6,215.71	86.23	240.07	244.19	0.91	0.85	-0.32	
6,970.00	90.20	89.20	6,215.30	87.47	335.06	339.12	0.15	-0.11	-0.11	
7,064.00	90.20	86.80	6,214.97	90.75	428.99	433.10	2.55	0.00	-2.55	
7,159.00	89.80	86.40	6,214.97	96.38	523.83	528.10	0.60	-0.42	-0.42	
7,253.00	90.40	86.80	6,214.81	101.96	617.66	622.09	0.77	0.64	0.43	
7,348.00	91.80	87.40	6,212.98	106.76	712.52	717.07	1.60	1.47	0.63	
7,442.00	88.70	87.30	6,212.57	111.11	806.40	811.06	3.30	-3.30	-0.11	
7,537.00	88.70	88.40	6,214.73	114.67	901.31	906.02	1.16	0.00	1.16	
7,631.00	89.00	87.70	6,216.61	117.87	995.24	999.99	0.81	0.32	-0.74	
7,726.00	90.50	88.00	6,217.03	121.43	1,090.17	1,094.98	1.61	1.58	0.32	
7,820.00	90.60	88.60	6,216.13	124.22	1,184.12	1,188.95	0.65	0.11	0.64	
7,915.00	91.00	88.90	6,214.80	126.29	1,279.09	1,283.90	0.53	0.42	0.32	
8,009.00	91.10	88.60	6,213.08	128.34	1,373.05	1,377.84	0.34	0.11	-0.32	
8,104.00	88.90	86.80	6,213.08	132.16	1,467.96	1,472.82	2.99	-2.32	-1.89	
8,198.00	88.30	85.80	6,215.37	138.22	1,561.74	1,566.79	1.24	-0.64	-1.06	
8,293.00	90.10	86.30	6,216.70	144.76	1,656.50	1,661.76	1.97	1.89	0.53	
8,388.00	90.20	86.90	6,216.45	150.40	1,751.33	1,756.75	0.64	0.11	0.63	
8,482.00	90.00	88.90	6,216.29	153.84	1,845.26	1,850.74	2.14	-0.21	2.13	
8,577.00	88.50	88.70	6,217.53	155.83	1,940.23	1,945.68	1.59	-1.58	-0.21	
8,671.00	89.70	89.80	6,219.01	157.06	2,034.21	2,039.60	1.73	1.28	1.17	
8,766.00	90.00	90.40	6,219.26	156.90	2,129.21	2,134.46	0.71	0.32	0.63	
8,861.00	89.70	89.80	6,219.51	156.73	2,224.21	2,229.33	0.71	-0.32	-0.63	
8,955.00	92.10	90.20	6,218.03	156.73	2,318.19	2,323.18	2.59	2.55	0.43	
9,049.00	91.10	87.90	6,215.40	158.29	2,412.13	2,417.08	2.67	-1.06	-2.45	
9,144.00	91.80	87.80	6,213.00	161.85	2,507.03	2,512.04	0.74	0.74	-0.11	
9,239.00	89.80	89.20	6,211.67	164.34	2,601.98	2,607.00	2.57	-2.11	1.47	
9,333.00	87.90	89.90	6,213.56	165.08	2,695.96	2,700.88	2.15	-2.02	0.74	
9,428.00	87.20	88.90	6,217.62	166.07	2,790.86	2,795.71	1.28	-0.74	-1.05	
9,522.00	88.30	89.60	6,221.31	167.30	2,884.78	2,889.57	1.39	1.17	0.74	
9,617.00	89.80	89.60	6,222.89	167.96	2,979.76	2,984.46	1.58	1.58	0.00	
9,712.00	92.80	89.40	6,220.73	168.79	3,074.72	3,079.34	3.16	3.16	-0.21	
9,806.00	93.10	89.40	6,215.89	169.77	3,168.59	3,173.13	0.32	0.32	0.00	
9,900.00	91.70	89.10	6,211.96	171.00	3,262.50	3,266.98	1.52	-1.49	-0.32	

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Windmill #7-26H
Project:	Weld Co., CO	TVD Reference:	WELL @ 4657.00usft
Site:	Sec.26-T5N-R62W	MD Reference:	WELL @ 4657.00usft
Well:	Anschutz Windmill #7-26H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)	
9,995.00	89.80	88.30	6,210.71	173.16	3,357.46	3,361.93	2.17	-2.00	-0.84	
10,089.00	90.60	89.00	6,210.39	175.37	3,451.44	3,455.89	1.13	0.85	0.74	
10,184.00	91.30	88.40	6,208.81	177.53	3,546.40	3,550.83	0.97	0.74	-0.63	
10,278.00	91.70	89.20	6,206.35	179.50	3,640.34	3,644.76	0.95	0.43	0.85	
10,372.00	90.70	87.00	6,204.38	182.61	3,734.26	3,738.71	2.57	-1.06	-2.34	
10,467.00	91.30	87.60	6,202.72	187.09	3,829.14	3,833.70	0.89	0.63	0.63	
10,562.00	92.00	86.60	6,199.99	191.89	3,923.98	3,928.66	1.28	0.74	-1.05	
10,656.00	91.00	86.20	6,197.53	197.79	4,017.76	4,022.62	1.15	-1.06	-0.43	
10,750.00	89.90	84.40	6,196.79	205.49	4,111.44	4,116.56	2.24	-1.17	-1.91	
10,844.00	90.00	82.80	6,196.87	215.97	4,204.85	4,210.39	1.71	0.11	-1.70	
Last Archer Survey										
10,862.00	90.20	81.10	6,196.84	218.49	4,222.67	4,228.32	9.51	1.11	-9.44	
PTB										
10,936.00	90.20	81.10	6,196.58	229.94	4,295.78	4,301.92	0.00	0.00	0.00	

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
847.00	847.00	0.00	0.00	Tie-In / Assumed Vertical
863.00	863.00	0.05	0.01	First Archer Survey
10,862.00	6,196.84	218.49	4,222.67	Last Archer Survey
10,936.00	6,196.58	229.94	4,295.78	PTB

Checked By: _____ Approved By: _____ Date: _____