





**Bill Barrett Corporation**

## **Bill Barrett Corp.**

**Weld County, CO NAD 83**

**Anschutz Equus Farms 4-62-28\_27 NWNW Pad [GOOD]**

**Anschutz Equus Farms 4-62-28-1609C**

**OH**

**Design: OH**

## **Standard Survey Report**

**05 February, 2018**



**Scientific Drilling**

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<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-28-1609C
<b>Project:</b>	Weld County, CO NAD 83	<b>TVD Reference:</b>	GL 4574.2' & KB 20' @ 4594.20ft (Savanna 802)
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWNW Pad [GOOD]	<b>MD Reference:</b>	GL 4574.2' & KB 20' @ 4594.20ft (Savanna 802)
<b>Well:</b>	Anschutz Equus Farms 4-62-28-1609C	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

<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	Anschutz Equus Farms 4-62-28_27 NWNW Pad [GOOD]				
Site Position:		Northing:	1,350,001.23 usft	Latitude:	40° 17' 17.948 N
From:	Lat/Long	Easting:	3,324,269.21 usft	Longitude:	104° 20' 15.299 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.75 °

Well	Anschutz Equus Farms 4-62-28-1609C, 950' FNL 316' FWL Sec 28 T4N R62W					
Well Position	+N/-S	0.00 ft	Northing:	1,349,662.16 usft	Latitude:	40° 17' 14.589 N
	+E/-W	0.00 ft	Easting:	3,324,338.67 usft	Longitude:	104° 20' 14.460 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,574.20 ft

<b>Wellbore</b>	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	4/24/2017	8.14	66.87	52,418
	HDGM	6/28/2017	8.25	66.95	52,364

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		89.748

<b>Survey Program</b>	<b>Date</b>	2/5/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
211.00	812.00	Survey #1 - Surface (OH)	OWSG MWD	OWSG MWD - Standard	
975.00	6,575.00	Survey #2 - Intermediate (OH)	OWSG MWD	OWSG MWD - Standard	
6,666.00	16,253.00	Survey #3 - Lateral (OH)	OWSG MWD	OWSG MWD - Standard	

<b>Survey</b>										
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	
211.00	0.13	20.070	211.00	0.22	0.08	0.08	0.06	0.06	0.00	
303.00	0.77	297.630	303.00	0.61	-0.43	-0.43	0.83	0.70	-89.61	
394.00	1.59	309.670	393.98	1.70	-1.94	-1.94	0.94	0.90	13.23	
484.00	2.11	313.740	483.93	3.64	-4.10	-4.09	0.60	0.58	4.52	
576.00	2.00	311.280	575.87	5.87	-6.53	-6.51	0.15	-0.12	-2.67	
667.00	1.89	309.560	666.82	7.88	-8.88	-8.85	0.14	-0.12	-1.89	

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-28-1609C
<b>Project:</b>	Weld County, CO NAD 83	<b>TVD Reference:</b>	GL 4574.2' & KB 20' @ 4594.20ft (Savanna 802)
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWNW Pad [GOOD]	<b>MD Reference:</b>	GL 4574.2' & KB 20' @ 4594.20ft (Savanna 802)
<b>Well:</b>	Anschutz Equus Farms 4-62-28-1609C	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

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)
759.00	2.55	308.190	758.75	10.11	-11.66	-11.62	0.72	0.72	-1.49
812.00	2.33	315.610	811.70	11.61	-13.34	-13.29	0.73	-0.42	14.00
975.00	2.37	311.560	974.56	16.21	-18.18	-18.11	0.10	0.02	-2.48
First SDI MWD Inter. Survey									
1,066.00	4.65	281.730	1,065.39	18.21	-23.20	-23.12	3.13	2.51	-32.78
1,157.00	7.65	273.460	1,155.86	19.32	-32.86	-32.78	3.43	3.30	-9.09
1,249.00	9.40	269.730	1,246.84	19.66	-46.49	-46.40	1.99	1.90	-4.05
1,339.00	10.10	262.350	1,335.55	18.57	-61.66	-61.58	1.59	0.78	-8.20
1,430.00	11.28	250.740	1,424.97	14.57	-77.97	-77.91	2.69	1.30	-12.76
1,521.00	12.62	250.290	1,514.00	8.29	-95.73	-95.69	1.48	1.47	-0.49
1,612.00	13.53	254.560	1,602.64	2.10	-115.35	-115.34	1.46	1.00	4.69
1,704.00	14.79	255.080	1,691.85	-3.79	-137.07	-137.09	1.38	1.37	0.57
1,795.00	16.89	258.970	1,779.39	-9.31	-161.28	-161.32	2.58	2.31	4.27
1,887.00	17.22	257.830	1,867.34	-14.74	-187.71	-187.77	0.51	0.36	-1.24
1,978.00	16.71	256.190	1,954.38	-20.70	-213.58	-213.67	0.77	-0.56	-1.80
2,070.00	16.05	257.920	2,042.65	-26.52	-238.86	-238.97	0.89	-0.72	1.88
2,161.00	13.91	257.390	2,130.55	-31.54	-261.84	-261.97	2.36	-2.35	-0.58
2,252.00	13.55	255.780	2,218.95	-36.55	-282.84	-283.00	0.58	-0.40	-1.77
2,343.00	12.02	260.050	2,307.69	-40.80	-302.51	-302.69	1.98	-1.68	4.69
2,437.00	10.63	262.870	2,399.86	-43.57	-320.76	-320.95	1.59	-1.48	3.00
2,532.00	8.79	264.600	2,493.50	-45.34	-336.68	-336.88	1.96	-1.94	1.82
2,626.00	6.56	262.310	2,586.65	-46.74	-349.15	-349.35	2.39	-2.37	-2.44
2,720.00	5.97	267.800	2,680.09	-47.64	-359.36	-359.56	0.89	-0.63	5.84
2,814.00	3.80	265.230	2,773.74	-48.09	-367.35	-367.56	2.32	-2.31	-2.73
2,907.00	1.15	286.450	2,866.65	-48.08	-371.32	-371.52	2.97	-2.85	22.82
3,002.00	0.80	261.300	2,961.63	-47.91	-372.89	-373.09	0.57	-0.37	-26.47
3,096.00	0.87	244.840	3,055.62	-48.32	-374.18	-374.39	0.26	0.07	-17.51
3,190.00	0.84	226.420	3,149.61	-49.09	-375.32	-375.54	0.29	-0.03	-19.60
3,284.00	1.08	229.940	3,243.60	-50.14	-376.50	-376.72	0.26	0.26	3.74
3,378.00	0.98	231.350	3,337.59	-51.21	-377.81	-378.03	0.11	-0.11	1.50
3,472.00	0.72	253.560	3,431.58	-51.88	-379.00	-379.23	0.44	-0.28	23.63
3,565.00	1.04	211.630	3,524.57	-52.76	-380.01	-380.23	0.75	0.34	-45.09
3,659.00	0.80	222.500	3,618.55	-53.97	-380.90	-381.13	0.31	-0.26	11.56
3,753.00	0.24	316.860	3,712.55	-54.31	-381.47	-381.71	0.91	-0.60	100.38
3,846.00	0.05	328.520	3,805.55	-54.14	-381.63	-381.86	0.21	-0.20	12.54
3,940.00	0.47	201.700	3,899.55	-54.46	-381.79	-382.03	0.53	0.45	-134.91
4,033.00	0.55	211.300	3,992.54	-55.20	-382.17	-382.40	0.13	0.09	10.32
4,127.00	0.71	209.780	4,086.54	-56.09	-382.69	-382.93	0.17	0.17	-1.62
4,221.00	0.40	323.040	4,180.54	-56.33	-383.18	-383.42	1.00	-0.33	120.49
4,315.00	0.63	345.520	4,274.53	-55.57	-383.50	-383.74	0.32	0.24	23.91
4,408.00	0.78	356.890	4,367.53	-54.44	-383.66	-383.90	0.22	0.16	12.23
4,502.00	0.60	311.680	4,461.52	-53.48	-384.07	-384.30	0.59	-0.19	-48.10
4,596.00	0.31	295.180	4,555.52	-53.04	-384.66	-384.89	0.34	-0.31	-17.55

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<b>Well:</b>	Anschutz Equus Farms 4-62-28-1609C	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

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)
4,690.00	0.42	268.630	4,649.51	-52.94	-385.24	-385.47	0.21	0.12	-28.24
4,784.00	0.45	259.030	4,743.51	-53.02	-385.95	-386.17	0.08	0.03	-10.21
4,877.00	0.59	279.450	4,836.51	-53.01	-386.78	-387.01	0.25	0.15	21.96
4,972.00	0.74	275.310	4,931.50	-52.87	-387.87	-388.10	0.17	0.16	-4.36
5,067.00	0.36	305.410	5,026.50	-52.64	-388.72	-388.95	0.49	-0.40	31.68
5,160.00	0.54	345.350	5,119.49	-52.05	-389.07	-389.30	0.38	0.19	42.95
5,254.00	0.76	302.120	5,213.49	-51.29	-389.71	-389.93	0.55	0.23	-45.99
5,348.00	1.54	18.680	5,307.47	-49.76	-389.84	-390.05	1.65	0.83	81.45
5,442.00	1.53	13.310	5,401.44	-47.34	-389.14	-389.35	0.15	-0.01	-5.71
5,536.00	0.96	3.690	5,495.42	-45.34	-388.80	-389.00	0.64	-0.61	-10.23
5,630.00	0.81	324.490	5,589.41	-44.01	-389.14	-389.33	0.65	-0.16	-41.70
5,724.00	0.60	281.880	5,683.40	-43.37	-390.01	-390.19	0.58	-0.22	-45.33
5,774.00	3.72	87.637	5,733.37	-43.25	-388.64	-388.83	8.61	6.24	331.51
<b>Curve KOP</b>									
5,817.00	7.42	88.620	5,776.16	-43.12	-384.47	-384.66	8.61	8.61	2.29
<b>First SDI MWD Curve Survey</b>									
5,911.00	16.28	87.340	5,868.06	-42.36	-365.20	-365.38	9.43	9.43	-1.36
6,005.00	23.50	93.600	5,956.41	-42.93	-333.29	-333.48	8.00	7.68	6.66
6,098.00	31.29	94.510	6,038.92	-46.00	-290.64	-290.84	8.39	8.38	0.98
6,192.00	42.78	99.270	6,113.84	-53.08	-234.60	-234.84	12.59	12.22	5.06
6,286.00	57.66	93.740	6,173.85	-60.86	-163.04	-163.31	16.45	15.83	-5.88
6,380.00	68.57	93.480	6,216.29	-66.13	-79.49	-79.78	11.61	11.61	-0.28
6,473.00	79.92	93.990	6,241.50	-71.96	9.68	9.36	12.22	12.20	0.55
6,575.00	89.50	94.180	6,250.89	-79.19	110.87	110.52	9.39	9.39	0.19
<b>Last SDI MWD Curve Survey</b>									
6,666.00	91.78	92.680	6,249.88	-84.63	201.69	201.32	3.00	2.51	-1.65
<b>First SDI MWD Lateral Survey</b>									
6,760.00	91.14	91.810	6,247.48	-88.31	295.59	295.19	1.15	-0.68	-0.93
6,854.00	90.94	93.900	6,245.78	-92.99	389.45	389.04	2.23	-0.21	2.22
6,947.00	92.18	94.280	6,243.24	-99.62	482.17	481.73	1.39	1.33	0.41
7,041.00	91.78	92.820	6,240.00	-105.44	575.94	575.47	1.61	-0.43	-1.55
7,135.00	91.21	91.070	6,237.54	-108.63	669.85	669.36	1.96	-0.61	-1.86
7,229.00	89.09	90.250	6,237.30	-109.71	763.83	763.34	2.42	-2.26	-0.87
7,323.00	89.30	90.130	6,238.62	-110.02	857.82	857.33	0.26	0.22	-0.13
7,416.00	91.81	90.670	6,237.72	-110.67	950.81	950.31	2.76	2.70	0.58
7,510.00	89.46	89.180	6,236.68	-110.55	1,044.79	1,044.30	2.96	-2.50	-1.59
7,605.00	90.97	90.710	6,236.32	-110.46	1,139.79	1,139.29	2.26	1.59	1.61
7,699.00	88.79	88.640	6,236.52	-109.92	1,233.77	1,233.28	3.20	-2.32	-2.20
7,792.00	88.93	88.450	6,238.37	-107.56	1,326.73	1,326.24	0.25	0.15	-0.20
7,886.00	89.50	87.640	6,239.65	-104.36	1,420.66	1,420.19	1.05	0.61	-0.86
7,981.00	88.93	88.860	6,240.96	-101.45	1,515.61	1,515.15	1.42	-0.60	1.28
8,074.00	90.57	88.970	6,241.36	-99.69	1,608.59	1,608.13	1.77	1.76	0.12
8,168.00	90.81	90.780	6,240.23	-99.49	1,702.57	1,702.12	1.94	0.26	1.93

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<b>Well:</b>	Anschutz Equus Farms 4-62-28-1609C	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

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)
8,263.00	90.91	91.760	6,238.80	-101.59	1,797.54	1,797.07	1.04	0.11	1.03
8,356.00	89.87	90.220	6,238.17	-103.20	1,890.52	1,890.05	2.00	-1.12	-1.66
8,451.00	91.17	91.150	6,237.31	-104.34	1,985.51	1,985.03	1.68	1.37	0.98
8,545.00	90.47	92.570	6,235.96	-107.39	2,079.44	2,078.95	1.68	-0.74	1.51
8,638.00	90.27	92.650	6,235.36	-111.62	2,172.34	2,171.83	0.23	-0.22	0.09
8,729.00	90.37	91.610	6,234.85	-115.00	2,263.28	2,262.75	1.15	0.11	-1.14
8,823.00	90.60	90.170	6,234.06	-116.46	2,357.26	2,356.73	1.55	0.24	-1.53
8,918.00	91.41	88.240	6,232.39	-115.15	2,452.23	2,451.70	2.20	0.85	-2.03
9,011.00	91.68	87.040	6,229.88	-111.32	2,545.12	2,544.60	1.32	0.29	-1.29
9,105.00	92.55	85.970	6,226.41	-105.59	2,638.88	2,638.39	1.47	0.93	-1.14
9,199.00	91.68	87.640	6,222.95	-100.36	2,732.66	2,732.20	2.00	-0.93	1.78
9,293.00	89.46	88.820	6,222.01	-97.45	2,826.61	2,826.15	2.67	-2.36	1.26
9,387.00	90.77	91.440	6,221.82	-97.67	2,920.60	2,920.14	3.12	1.39	2.79
9,480.00	91.84	91.670	6,219.70	-100.19	3,013.54	3,013.07	1.18	1.15	0.25
9,574.00	90.94	91.260	6,217.42	-102.59	3,107.48	3,106.99	1.05	-0.96	-0.44
9,668.00	92.38	91.270	6,214.70	-104.67	3,201.41	3,200.92	1.53	1.53	0.01
9,762.00	89.56	90.030	6,213.11	-105.73	3,295.38	3,294.88	3.28	-3.00	-1.32
9,856.00	89.33	89.910	6,214.02	-105.68	3,389.38	3,388.88	0.28	-0.24	-0.13
9,949.00	90.17	89.540	6,214.43	-105.24	3,482.37	3,481.88	0.99	0.90	-0.40
10,043.00	89.80	88.530	6,214.45	-103.65	3,576.36	3,575.87	1.14	-0.39	-1.07
10,136.00	90.10	89.160	6,214.53	-101.78	3,669.34	3,668.86	0.75	0.32	0.68
10,230.00	89.63	87.820	6,214.75	-99.30	3,763.30	3,762.83	1.51	-0.50	-1.43
10,324.00	90.67	89.940	6,214.51	-97.47	3,857.28	3,856.81	2.51	1.11	2.26
10,415.00	91.21	89.460	6,213.01	-96.99	3,948.26	3,947.80	0.79	0.59	-0.53
10,506.00	91.68	88.870	6,210.72	-95.66	4,039.23	4,038.77	0.83	0.52	-0.65
10,598.00	90.54	87.770	6,208.94	-92.97	4,131.17	4,130.72	1.72	-1.24	-1.20
10,689.00	90.74	90.080	6,207.92	-91.26	4,222.14	4,221.70	2.55	0.22	2.54
10,780.00	91.98	90.350	6,205.76	-91.60	4,313.11	4,312.66	1.39	1.36	0.30
10,872.00	89.70	88.070	6,204.41	-90.33	4,405.08	4,404.64	3.50	-2.48	-2.48
10,963.00	91.51	90.020	6,203.45	-88.82	4,496.05	4,495.62	2.92	1.99	2.14
11,054.00	91.61	87.880	6,200.97	-87.15	4,587.00	4,586.57	2.35	0.11	-2.35
11,146.00	91.71	89.710	6,198.31	-85.21	4,678.94	4,678.52	1.99	0.11	1.99
11,237.00	91.14	92.090	6,196.04	-86.64	4,769.89	4,769.46	2.69	-0.63	2.62
11,328.00	90.60	90.700	6,194.66	-88.86	4,860.85	4,860.41	1.64	-0.59	-1.53
11,420.00	90.50	89.280	6,193.78	-88.84	4,952.84	4,952.40	1.55	-0.11	-1.54
11,511.00	90.77	88.800	6,192.77	-87.32	5,043.82	5,043.39	0.61	0.30	-0.53
11,602.00	90.94	88.050	6,191.41	-84.82	5,134.78	5,134.36	0.84	0.19	-0.82
11,694.00	91.07	88.110	6,189.80	-81.74	5,226.71	5,226.30	0.16	0.14	0.07
11,785.00	91.14	86.530	6,188.04	-77.48	5,317.59	5,317.20	1.74	0.08	-1.74
11,877.00	90.57	88.490	6,186.67	-73.49	5,409.49	5,409.12	2.22	-0.62	2.13
11,968.00	91.88	90.480	6,184.73	-72.67	5,500.46	5,500.09	2.62	1.44	2.19
12,059.00	90.50	92.260	6,182.84	-74.84	5,591.41	5,591.03	2.47	-1.52	1.96

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-28-1609C
<b>Project:</b>	Weld County, CO NAD 83	<b>TVD Reference:</b>	GL 4574.2' & KB 20' @ 4594.20ft (Savanna 802)
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWNW Pad [GOOD]	<b>MD Reference:</b>	GL 4574.2' & KB 20' @ 4594.20ft (Savanna 802)
<b>Well:</b>	Anschutz Equus Farms 4-62-28-1609C	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

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)
12,150.00	90.70	91.600	6,181.88	-77.91	5,682.35	5,681.95	0.76	0.22	-0.73
12,242.00	90.17	90.670	6,181.18	-79.73	5,774.33	5,773.92	1.16	-0.58	-1.01
12,333.00	89.87	90.760	6,181.15	-80.87	5,865.32	5,864.91	0.34	-0.33	0.10
12,424.00	90.23	90.470	6,181.07	-81.84	5,956.32	5,955.90	0.51	0.40	-0.32
12,515.00	90.64	90.060	6,180.38	-82.26	6,047.31	6,046.89	0.64	0.45	-0.45
12,606.00	90.67	88.390	6,179.34	-81.03	6,138.30	6,137.88	1.84	0.03	-1.84
12,697.00	91.01	90.670	6,178.01	-80.29	6,229.28	6,228.86	2.53	0.37	2.51
12,789.00	91.84	90.620	6,175.72	-81.32	6,321.24	6,320.82	0.90	0.90	-0.05
12,880.00	91.01	91.280	6,173.46	-82.83	6,412.20	6,411.77	1.17	-0.91	0.73
12,970.00	89.77	89.300	6,172.84	-83.28	6,502.19	6,501.76	2.60	-1.38	-2.20
13,062.00	89.87	90.360	6,173.13	-83.01	6,594.19	6,593.76	1.16	0.11	1.15
13,153.00	90.40	88.420	6,172.92	-82.04	6,685.18	6,684.75	2.21	0.58	-2.13
13,245.00	91.07	90.280	6,171.74	-81.00	6,777.16	6,776.74	2.15	0.73	2.02
13,336.00	91.57	88.870	6,169.64	-80.32	6,868.13	6,867.71	1.64	0.55	-1.55
13,427.00	90.80	90.650	6,167.76	-79.94	6,959.11	6,958.69	2.13	-0.85	1.96
13,518.00	91.57	89.910	6,165.88	-80.39	7,050.08	7,049.66	1.17	0.85	-0.81
13,609.00	90.30	90.440	6,164.39	-80.67	7,141.07	7,140.65	1.51	-1.40	0.58
13,701.00	92.14	87.890	6,162.43	-79.33	7,233.03	7,232.61	3.42	2.00	-2.77
13,792.00	92.31	90.160	6,158.90	-77.78	7,323.94	7,323.53	2.50	0.19	2.49
13,883.00	90.90	90.840	6,156.35	-78.57	7,414.90	7,414.48	1.72	-1.55	0.75
13,974.00	90.77	91.610	6,155.03	-80.52	7,505.87	7,505.44	0.86	-0.14	0.85
14,066.00	91.11	91.330	6,153.52	-82.88	7,597.82	7,597.39	0.48	0.37	-0.30
14,157.00	90.84	90.230	6,151.97	-84.12	7,688.80	7,688.36	1.24	-0.30	-1.21
14,249.00	90.17	87.180	6,151.16	-82.04	7,780.76	7,780.33	3.39	-0.73	-3.32
14,340.00	89.20	89.320	6,151.66	-79.26	7,871.71	7,871.29	2.58	-1.07	2.35
14,431.00	90.07	90.690	6,152.24	-79.27	7,962.71	7,962.28	1.78	0.96	1.51
14,522.00	90.57	90.180	6,151.73	-79.96	8,053.70	8,053.27	0.78	0.55	-0.56
14,613.00	91.14	91.920	6,150.37	-81.63	8,144.67	8,144.24	2.01	0.63	1.91
14,704.00	90.23	90.960	6,149.28	-83.91	8,235.64	8,235.19	1.45	-1.00	-1.05
14,795.00	90.00	90.030	6,149.10	-84.70	8,326.63	8,326.18	1.05	-0.25	-1.02
14,886.00	90.67	89.520	6,148.57	-84.34	8,417.63	8,417.18	0.93	0.74	-0.56
14,977.00	90.84	86.980	6,147.37	-81.56	8,508.57	8,508.13	2.80	0.19	-2.79
15,069.00	91.27	89.230	6,145.67	-78.52	8,600.50	8,600.07	2.49	0.47	2.45
15,160.00	90.44	88.350	6,144.32	-76.60	8,691.47	8,691.05	1.33	-0.91	-0.97
15,252.00	91.07	88.670	6,143.10	-74.21	8,783.43	8,783.01	0.77	0.68	0.35
15,343.00	90.07	89.720	6,142.20	-72.93	8,874.41	8,874.00	1.59	-1.10	1.15
15,434.00	90.57	88.010	6,141.69	-71.13	8,965.39	8,964.99	1.96	0.55	-1.88
15,526.00	90.90	89.060	6,140.51	-68.77	9,057.35	9,056.96	1.20	0.36	1.14
15,617.00	90.70	89.190	6,139.24	-67.38	9,148.33	9,147.94	0.26	-0.22	0.14
15,708.00	90.33	90.690	6,138.42	-67.29	9,239.32	9,238.94	1.70	-0.41	1.65
15,798.00	90.13	88.040	6,138.06	-66.29	9,329.31	9,328.93	2.95	-0.22	-2.94
15,892.00	89.80	86.760	6,138.12	-62.03	9,423.21	9,422.85	1.41	-0.35	-1.36
15,986.00	90.00	89.090	6,138.28	-58.62	9,517.14	9,516.79	2.49	0.21	2.48

<b>Company:</b>	Bill Barrett Corp.	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-28-1609C
<b>Project:</b>	Weld County, CO NAD 83	<b>TVD Reference:</b>	GL 4574.2' & KB 20' @ 4594.20ft (Savanna 802)
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWNW Pad [GOOD]	<b>MD Reference:</b>	GL 4574.2' & KB 20' @ 4594.20ft (Savanna 802)
<b>Well:</b>	Anschutz Equus Farms 4-62-28-1609C	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

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)
16,080.00	89.93	85.520	6,138.34	-54.21	9,611.02	9,610.69	3.80	-0.07	-3.80
16,174.00	90.47	84.640	6,138.01	-46.14	9,704.67	9,704.38	1.10	0.57	-0.94
16,195.00	90.54	84.360	6,137.83	-44.13	9,725.58	9,725.29	1.37	0.33	-1.33
<b>Last SDI MWD Survey</b>									
16,253.00	90.54	84.360	6,137.28	-38.43	9,783.29	9,783.03	0.00	0.00	0.00
<b>Projection to TD</b>									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
975.00	974.56	16.21	-18.18	First SDI MWD Inter. Survey
5,774.00	5,733.37	-43.25	-388.64	Curve KOP
5,817.00	5,776.16	-43.12	-384.47	First SDI MWD Curve Survey
6,575.00	6,250.89	-79.19	110.87	Last SDI MWD Curve Survey
6,666.00	6,249.88	-84.63	201.69	First SDI MWD Lateral Survey
16,195.00	6,137.83	-44.13	9,725.58	Last SDI MWD Survey
16,253.00	6,137.28	-38.43	9,783.29	Projection to TD

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