



Project: Weld County, CO NAD 83
Site: Anschutz Equus Farms 4-62-33_34 SWNW Pad [GOOD]
Well: Anschutz Equus Farms 4-62-32-4033C
Wellbore: OH
Design: OH

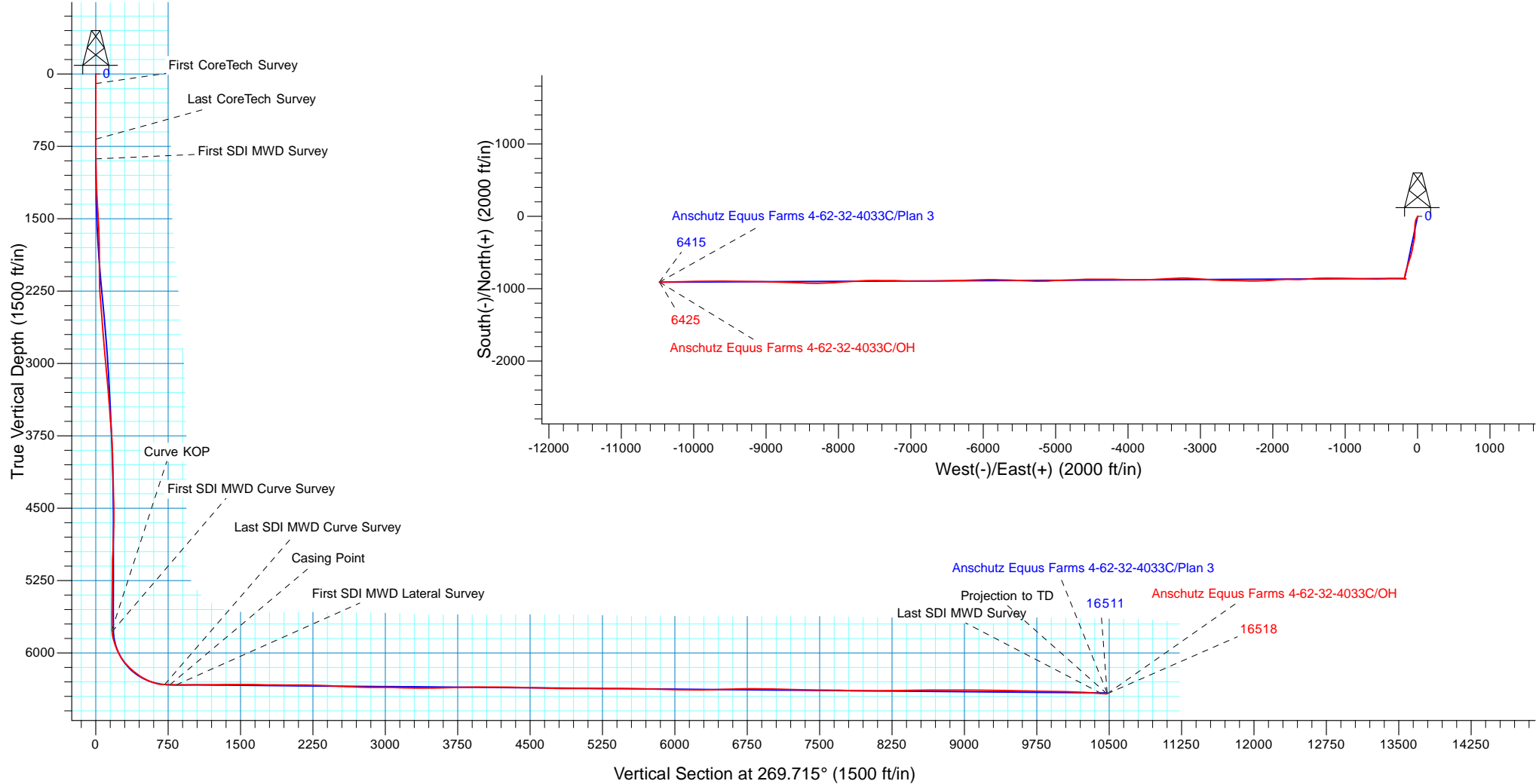


WELL DETAILS: Anschutz Equus Farms 4-62-32-4033C			
GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)	4657.30		
Northing	Easting	Latitude	Longitude
1343488.05	3324422.69	40° 16' 13.569 N	104° 20' 14.420 W

Design: OH (Anschutz Equus Farms 4-62-32-4033C/OH)	
Created By: Seth Burstad	Date: 9-26-2017

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

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
100.00	100.00	0.17	147.150	-0.12	0.08	-0.08	0.15	First CoreTech Survey	
674.98	675.00	0.29	202.790	-4.07	-0.50	0.52	4.51	Last CoreTech Survey	
880.98	881.00	0.08	210.300	-4.68	-0.77	0.80	5.17	First SDI MWD Survey	
5759.58	5888.00	2.67	259.915	-862.35	-164.10	168.38	913.04	Curve KOP	
5780.55	5909.00	3.63	261.600	-862.53	-165.24	169.52	913.83	First SDI MWD Curve Survey	
6329.33	6745.00	88.82	270.620	-864.08	-709.61	713.90	1458.42	Last SDI MWD Curve Survey	
6330.42	6800.00	88.92	270.675	-863.46	-764.60	768.89	1513.41	Casing Point	
6331.58	6865.00	89.03	270.740	-862.66	-829.58	833.87	1578.40	First SDI MWD Lateral Survey	
6421.10	16462.00	85.71	268.210	-907.72	-10417.75	10422.14	11173.06	Last SDI MWD Survey	
6425.29	16518.00	85.71	268.210	-909.46	-10473.57	10477.96	11228.91	Projection to TD	





Bill Barrett Corporation

Bill Barrett Corp.

Weld County, CO NAD 83

Anschutz Equus Farms 4-62-33_34 SWNW Pad [GOOD]

Anschutz Equus Farms 4-62-32-4033C

OH

Design: OH

Standard Survey Report

26 September, 2017



Scientific Drilling

www.scientificdrilling.com



Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-4033C
Project:	Weld County, CO NAD 83	TVD Reference:	GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad [GOOD]	MD Reference:	GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)
Well:	Anschutz Equus Farms 4-62-32-4033C	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

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 Equus Farms 4-62-33_34 SWNW Pad [GOOD], Site Center : Anschutz Equus Farms 4-62-32-0916C				
Site Position:		Northing:	1,343,489.80 usft	Latitude:	40° 16' 13.580 N
From:	Lat/Long	Easting:	3,324,467.60 usft	Longitude:	104° 20' 13.841 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.75 °

Well	Anschutz Equus Farms 4-62-32-4033C, 1901' FNL 300' FWL Sec 33 T4N R62W					
Well Position	+N/-S	0.00 ft	Northing:	1,343,488.05 usft	Latitude:	40° 16' 13.569 N
	+E/-W	0.00 ft	Easting:	3,324,422.69 usft	Longitude:	104° 20' 14.420 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,657.30 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	4/13/2017	8.14	66.85	52,412
	HDGM	7/18/2017	8.27	66.93	52,363

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		269.715

Survey Program	Date	9/26/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	675.00	Survey #1 - Surface (OH)	Standard Keeper	Standard Wireline Keeper ver 1.0.2	
881.00	6,745.00	Survey #2 - Intermediate (OH)	OWSG MWD	OWSG MWD - Standard	
6,865.00	16,518.00	Survey #3 - Lateral (OH)	OWSG MWD	OWSG MWD - Standard	

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	0.17	147.150	100.00	-0.12	0.08	-0.08	0.17	0.17	0.00	
First CoreTech Survey										
200.00	0.43	153.530	200.00	-0.59	0.33	-0.33	0.26	0.26	6.38	
300.00	0.58	177.360	299.99	-1.43	0.52	-0.51	0.25	0.15	23.83	
400.00	0.37	183.730	399.99	-2.25	0.52	-0.51	0.22	-0.21	6.37	
500.00	0.39	212.830	499.99	-2.86	0.32	-0.30	0.19	0.02	29.10	

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-4033C
Project:	Weld County, CO NAD 83	TVD Reference:	GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad [GOOD]	MD Reference:	GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)
Well:	Anschutz Equus Farms 4-62-32-4033C	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)	
600.00	0.61	216.710	599.99	-3.58	-0.19	0.20	0.22	0.22	3.88	
675.00	0.29	202.790	674.98	-4.07	-0.50	0.52	0.45	-0.43	-18.56	
Last CoreTech Survey										
881.00	0.08	210.300	880.98	-4.68	-0.77	0.80	0.10	-0.10	3.65	
First SDI MWD Survey										
972.00	0.34	237.300	971.98	-4.88	-1.03	1.06	0.30	0.29	29.67	
1,064.00	4.22	216.180	1,063.89	-7.76	-3.26	3.30	4.24	4.22	-22.96	
1,155.00	5.86	206.960	1,154.54	-14.60	-7.34	7.42	2.00	1.80	-10.13	
1,246.00	5.47	204.610	1,245.09	-22.68	-11.26	11.37	0.50	-0.43	-2.58	
1,338.00	7.47	209.640	1,336.50	-31.87	-16.04	16.20	2.26	2.17	5.47	
1,429.00	8.45	205.090	1,426.63	-43.07	-21.80	22.02	1.28	1.08	-5.00	
1,520.00	10.17	196.770	1,516.43	-56.82	-26.96	27.24	2.40	1.89	-9.14	
1,611.00	10.72	190.390	1,605.92	-72.83	-30.80	31.16	1.41	0.60	-7.01	
1,702.00	13.36	186.030	1,694.92	-91.62	-33.43	33.89	3.07	2.90	-4.79	
1,794.00	14.60	184.680	1,784.19	-113.74	-35.49	36.06	1.39	1.35	-1.47	
1,885.00	17.45	182.540	1,871.64	-138.81	-37.04	37.73	3.20	3.13	-2.35	
1,976.00	18.10	176.720	1,958.31	-166.56	-36.83	37.66	2.08	0.71	-6.40	
2,068.00	20.99	181.810	2,045.00	-197.30	-36.53	37.51	3.64	3.14	5.53	
2,159.00	22.46	180.810	2,129.54	-230.98	-37.29	38.44	1.67	1.62	-1.10	
2,250.00	24.14	185.070	2,213.12	-266.90	-39.18	40.51	2.61	1.85	4.68	
2,341.00	23.38	189.400	2,296.41	-303.25	-43.78	45.29	2.09	-0.84	4.76	
2,435.00	23.12	190.450	2,382.78	-339.80	-50.17	51.86	0.52	-0.28	1.12	
2,528.00	22.68	190.810	2,468.45	-375.37	-56.85	58.71	0.50	-0.47	0.39	
2,622.00	21.22	191.620	2,555.63	-409.83	-63.67	65.71	1.59	-1.55	0.86	
2,717.00	20.75	192.300	2,644.33	-443.12	-70.72	72.92	0.56	-0.49	0.72	
2,810.00	20.16	191.370	2,731.47	-474.92	-77.39	79.75	0.72	-0.63	-1.00	
2,903.00	19.94	191.440	2,818.83	-506.18	-83.69	86.21	0.24	-0.24	0.08	
2,998.00	18.13	197.370	2,908.64	-536.17	-91.32	93.99	2.79	-1.91	6.24	
3,092.00	16.98	200.450	2,998.26	-562.99	-100.48	103.28	1.57	-1.22	3.28	
3,186.00	16.13	197.170	3,088.37	-588.33	-109.13	112.06	1.34	-0.90	-3.49	
3,280.00	15.08	197.230	3,178.90	-612.48	-116.61	119.66	1.12	-1.12	0.06	
3,374.00	14.37	196.520	3,269.81	-635.34	-123.55	126.71	0.78	-0.76	-0.76	
3,468.00	15.13	197.910	3,360.72	-658.20	-130.64	133.91	0.89	0.81	1.48	
3,562.00	15.01	195.610	3,451.48	-681.60	-137.69	141.08	0.65	-0.13	-2.45	
3,656.00	15.14	197.860	3,542.25	-705.00	-144.73	148.23	0.64	0.14	2.39	
3,749.00	13.85	197.680	3,632.29	-727.17	-151.83	155.45	1.39	-1.39	-0.19	
3,843.00	13.60	196.610	3,723.60	-748.48	-158.41	162.13	0.38	-0.27	-1.14	
3,937.00	12.17	197.240	3,815.23	-768.53	-164.51	168.33	1.53	-1.52	0.67	
4,030.00	10.39	194.370	3,906.43	-786.02	-169.49	173.40	2.01	-1.91	-3.09	
4,125.00	8.42	187.610	4,000.16	-801.22	-172.54	176.52	2.37	-2.07	-7.12	
4,219.00	7.91	184.480	4,093.20	-814.49	-173.96	178.01	0.72	-0.54	-3.33	
4,313.00	6.60	188.840	4,186.45	-826.27	-175.29	179.40	1.51	-1.39	4.64	
4,407.00	6.09	194.520	4,279.87	-836.44	-177.37	181.53	0.86	-0.54	6.04	

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Well:	Anschutz Equus Farms 4-62-32-4033C	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)
4,501.00	4.92	198.700	4,373.44	-845.08	-179.92	184.12	1.31	-1.24	4.45
4,595.00	4.44	195.430	4,467.13	-852.41	-182.18	186.41	0.58	-0.51	-3.48
4,689.00	2.23	174.880	4,560.96	-857.74	-182.98	187.25	2.64	-2.35	-21.86
4,783.00	1.96	163.790	4,654.90	-861.10	-182.37	186.65	0.52	-0.29	-11.80
4,876.00	1.82	94.690	4,747.86	-862.75	-180.45	184.74	2.31	-0.15	-74.30
4,971.00	2.11	98.500	4,842.81	-863.13	-177.22	181.51	0.33	0.31	4.01
5,065.00	2.20	98.500	4,936.74	-863.66	-173.72	178.02	0.10	0.10	0.00
5,159.00	2.35	94.310	5,030.67	-864.07	-170.02	174.31	0.24	0.16	-4.46
5,253.00	0.76	18.150	5,124.63	-863.62	-167.90	172.20	2.44	-1.69	-81.02
5,346.00	0.57	63.650	5,217.63	-862.83	-167.29	171.58	0.58	-0.20	48.92
5,440.00	0.83	42.490	5,311.62	-862.12	-166.42	170.70	0.39	0.28	-22.51
5,534.00	0.70	102.900	5,405.61	-861.75	-165.40	169.68	0.83	-0.14	64.27
5,628.00	0.55	62.460	5,499.61	-861.67	-164.44	168.72	0.48	-0.16	-43.02
5,722.00	0.41	110.000	5,593.61	-861.57	-163.72	168.00	0.43	-0.15	50.57
5,816.00	0.71	110.900	5,687.60	-861.89	-162.86	167.15	0.32	0.32	0.96
5,888.00	2.67	259.915	5,759.58	-862.35	-164.10	168.38	4.58	2.72	206.97
Curve KOP									
5,909.00	3.63	261.600	5,780.55	-862.53	-165.24	169.52	4.58	4.56	8.02
First SDI MWD Curve Survey									
6,003.00	16.64	269.030	5,872.88	-863.20	-181.71	186.00	13.88	13.84	7.90
6,097.00	23.06	273.390	5,961.26	-862.33	-213.58	217.86	7.00	6.83	4.64
6,190.00	31.79	271.560	6,043.73	-860.59	-256.33	260.61	9.43	9.39	-1.97
6,284.00	42.00	271.710	6,118.80	-858.97	-312.66	316.93	10.86	10.86	0.16
6,378.00	49.43	267.740	6,184.40	-859.44	-379.88	384.15	8.46	7.90	-4.22
6,472.00	56.73	268.890	6,240.83	-861.61	-454.95	459.23	7.83	7.77	1.22
6,566.00	65.52	269.320	6,286.18	-862.88	-537.17	541.46	9.36	9.35	0.46
6,660.00	75.33	269.240	6,317.64	-864.00	-625.62	629.91	10.44	10.44	-0.09
6,745.00	88.82	270.620	6,329.33	-864.08	-709.61	713.90	15.95	15.87	1.62
Last SDI MWD Curve Survey									
6,800.00	88.92	270.675	6,330.42	-863.46	-764.60	768.89	0.20	0.17	0.10
Casing Point									
6,865.00	89.03	270.740	6,331.58	-862.66	-829.58	833.87	0.20	0.18	0.10
First SDI MWD Lateral Survey									
6,958.00	90.03	271.600	6,332.34	-860.76	-922.56	926.83	1.42	1.08	0.92
7,052.00	90.00	271.800	6,332.32	-857.97	-1,016.52	1,020.77	0.22	-0.03	0.21
7,146.00	91.31	272.140	6,331.25	-854.74	-1,110.45	1,114.69	1.44	1.39	0.36
7,240.00	90.77	270.390	6,329.54	-852.67	-1,204.41	1,208.64	1.95	-0.57	-1.86
7,333.00	91.18	270.430	6,327.96	-852.00	-1,297.40	1,301.62	0.44	0.44	0.04
7,427.00	89.76	265.790	6,327.18	-855.10	-1,391.31	1,395.55	5.16	-1.51	-4.94
7,521.00	89.03	264.320	6,328.18	-863.20	-1,484.96	1,489.23	1.75	-0.78	-1.56
7,616.00	89.39	267.580	6,329.49	-869.91	-1,579.70	1,584.00	3.45	0.38	3.43
7,709.00	89.29	270.710	6,330.56	-871.30	-1,672.67	1,676.98	3.37	-0.11	3.37
7,803.00	89.43	270.390	6,331.61	-870.40	-1,766.66	1,770.97	0.37	0.15	-0.34

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Well:	Anschutz Equus Farms 4-62-32-4033C	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)
7,898.00	89.70	267.910	6,332.33	-871.80	-1,861.64	1,865.95	2.63	0.28	-2.61
7,992.00	89.70	265.240	6,332.82	-877.42	-1,955.46	1,959.80	2.84	0.00	-2.84
8,086.00	89.09	265.630	6,333.82	-884.90	-2,049.16	2,053.53	0.77	-0.65	0.41
8,180.00	90.91	269.340	6,333.82	-889.02	-2,143.04	2,147.44	4.40	1.94	3.95
8,274.00	87.81	268.770	6,334.87	-890.57	-2,237.01	2,241.42	3.35	-3.30	-0.61
8,368.00	88.25	271.040	6,338.10	-890.73	-2,330.95	2,335.35	2.46	0.47	2.41
8,462.00	87.95	270.440	6,341.21	-889.52	-2,424.89	2,429.29	0.71	-0.32	-0.64
8,556.00	87.58	272.530	6,344.88	-887.08	-2,518.78	2,523.17	2.26	-0.39	2.22
8,650.00	86.91	272.010	6,349.40	-883.36	-2,612.60	2,616.96	0.90	-0.71	-0.55
8,744.00	87.58	271.050	6,353.92	-880.86	-2,706.46	2,710.81	1.24	0.71	-1.02
8,838.00	89.16	271.430	6,356.59	-878.82	-2,800.39	2,804.73	1.73	1.68	0.40
8,932.00	89.43	273.700	6,357.75	-874.62	-2,894.29	2,898.60	2.43	0.29	2.41
9,026.00	89.66	275.710	6,358.49	-866.91	-2,987.96	2,992.24	2.15	0.24	2.14
9,120.00	89.16	274.730	6,359.46	-858.36	-3,081.57	3,085.80	1.17	-0.53	-1.04
9,215.00	88.86	272.280	6,361.10	-852.55	-3,176.37	3,180.57	2.60	-0.32	-2.58
9,308.00	88.12	268.400	6,363.55	-852.00	-3,269.31	3,273.51	4.25	-0.80	-4.17
9,402.00	90.34	266.470	6,364.82	-856.20	-3,363.20	3,367.42	3.13	2.36	-2.05
9,498.00	90.64	267.180	6,364.00	-861.52	-3,459.05	3,463.29	0.80	0.31	0.74
9,589.00	90.37	266.520	6,363.19	-866.52	-3,549.91	3,554.17	0.78	-0.30	-0.73
9,684.00	91.01	267.470	6,362.05	-871.50	-3,644.77	3,649.06	1.21	0.67	1.00
9,777.00	92.45	268.520	6,359.24	-874.75	-3,737.67	3,741.97	1.92	1.55	1.13
9,871.00	91.95	270.650	6,355.63	-875.43	-3,831.59	3,835.90	2.33	-0.53	2.27
9,965.00	89.46	270.400	6,354.48	-874.57	-3,925.57	3,929.87	2.66	-2.65	-0.27
10,058.00	90.00	270.740	6,354.92	-873.65	-4,018.56	4,022.86	0.69	0.58	0.37
10,153.00	90.03	271.640	6,354.89	-871.67	-4,113.54	4,117.83	0.95	0.03	0.95
10,247.00	89.63	270.280	6,355.17	-870.10	-4,207.53	4,211.80	1.51	-0.43	-1.45
10,340.00	89.40	270.700	6,355.96	-869.30	-4,300.52	4,304.79	0.51	-0.25	0.45
10,431.00	88.96	269.830	6,357.26	-868.88	-4,391.51	4,395.78	1.07	-0.48	-0.96
10,523.00	88.05	270.160	6,359.66	-868.89	-4,483.48	4,487.74	1.05	-0.99	0.36
10,614.00	88.83	269.610	6,362.14	-869.07	-4,574.44	4,578.71	1.05	0.86	-0.60
10,705.00	88.03	266.820	6,364.63	-871.91	-4,665.35	4,669.63	3.19	-0.88	-3.07
10,796.00	88.15	267.010	6,367.66	-876.80	-4,756.17	4,760.47	0.25	0.13	0.21
10,888.00	89.26	267.880	6,369.74	-880.90	-4,848.05	4,852.37	1.53	1.21	0.95
10,979.00	90.60	268.400	6,369.85	-883.85	-4,939.00	4,943.34	1.58	1.47	0.57
11,069.00	89.87	266.270	6,369.49	-888.04	-5,028.90	5,033.25	2.50	-0.81	-2.37
11,160.00	89.50	268.170	6,369.99	-892.45	-5,119.79	5,124.16	2.13	-0.41	2.09
11,252.00	89.33	268.760	6,370.92	-894.92	-5,211.75	5,216.13	0.67	-0.18	0.64
11,344.00	90.50	272.350	6,371.06	-894.03	-5,303.73	5,308.11	4.10	1.27	3.90
11,435.00	90.30	271.820	6,370.43	-890.71	-5,394.66	5,399.03	0.62	-0.22	-0.58
11,526.00	90.03	273.720	6,370.16	-886.32	-5,485.55	5,489.89	2.11	-0.30	2.09
11,617.00	89.36	272.460	6,370.65	-881.41	-5,576.42	5,580.73	1.57	-0.74	-1.38
11,709.00	88.26	271.220	6,372.56	-878.46	-5,668.35	5,672.65	1.80	-1.20	-1.35
11,800.00	88.49	271.170	6,375.14	-876.56	-5,759.29	5,763.58	0.26	0.25	-0.05

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-4033C
Project:	Weld County, CO NAD 83	TVD Reference:	GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad [GOOD]	MD Reference:	GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)
Well:	Anschutz Equus Farms 4-62-32-4033C	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)
11,891.00	88.16	271.530	6,377.80	-874.42	-5,850.23	5,854.50	0.54	-0.36	0.40
11,982.00	89.36	269.000	6,379.77	-874.00	-5,941.19	5,945.47	3.08	1.32	-2.78
12,073.00	88.70	268.130	6,381.31	-876.28	-6,032.15	6,036.43	1.20	-0.73	-0.96
12,165.00	89.46	267.890	6,382.79	-879.47	-6,124.08	6,128.38	0.87	0.83	-0.26
12,256.00	89.16	267.240	6,383.88	-883.34	-6,214.99	6,219.31	0.79	-0.33	-0.71
12,348.00	91.37	269.430	6,383.46	-886.01	-6,306.94	6,311.27	3.38	2.40	2.38
12,439.00	91.81	268.960	6,380.93	-887.29	-6,397.90	6,402.23	0.71	0.48	-0.52
12,530.00	91.71	267.560	6,378.14	-890.05	-6,488.81	6,493.16	1.54	-0.11	-1.54
12,622.00	91.37	268.830	6,375.66	-892.95	-6,580.73	6,585.09	1.43	-0.37	1.38
12,713.00	90.50	269.850	6,374.18	-893.99	-6,671.71	6,676.07	1.47	-0.96	1.12
12,805.00	90.90	269.190	6,373.06	-894.77	-6,763.70	6,768.07	0.84	0.43	-0.72
12,896.00	89.73	269.660	6,372.56	-895.68	-6,854.69	6,859.06	1.39	-1.29	0.52
12,987.00	89.60	269.230	6,373.09	-896.56	-6,945.68	6,950.06	0.49	-0.14	-0.47
13,078.00	87.75	272.340	6,375.19	-895.31	-7,036.64	7,041.00	3.98	-2.03	3.42
13,169.00	88.12	272.800	6,378.47	-891.24	-7,127.49	7,131.83	0.65	0.41	0.51
13,260.00	88.39	271.070	6,381.24	-888.17	-7,218.39	7,222.72	1.92	0.30	-1.90
13,352.00	89.30	270.300	6,383.10	-887.07	-7,310.36	7,314.68	1.30	0.99	-0.84
13,443.00	89.96	269.260	6,383.68	-887.42	-7,401.36	7,405.68	1.35	0.73	-1.14
13,534.00	89.46	271.560	6,384.15	-886.76	-7,492.35	7,496.67	2.59	-0.55	2.53
13,626.00	88.05	267.980	6,386.14	-887.13	-7,584.31	7,588.63	4.18	-1.53	-3.89
13,717.00	90.03	268.770	6,387.67	-889.71	-7,675.25	7,679.58	2.34	2.18	0.87
13,808.00	88.32	266.010	6,388.98	-893.86	-7,766.14	7,770.49	3.57	-1.88	-3.03
13,900.00	89.50	265.450	6,390.73	-900.70	-7,857.86	7,862.25	1.42	1.28	-0.61
13,991.00	89.16	265.530	6,391.79	-907.86	-7,948.57	7,952.99	0.38	-0.37	0.09
14,083.00	88.22	266.830	6,393.90	-913.99	-8,040.34	8,044.79	1.74	-1.02	1.41
14,174.00	90.84	267.160	6,394.64	-918.76	-8,131.21	8,135.68	2.90	2.88	0.36
14,266.00	90.87	268.760	6,393.27	-922.03	-8,223.14	8,227.62	1.74	0.03	1.74
14,357.00	92.01	270.200	6,390.98	-922.86	-8,314.10	8,318.59	2.02	1.25	1.58
14,448.00	92.18	271.330	6,387.66	-921.64	-8,405.03	8,409.51	1.25	0.19	1.24
14,539.00	90.10	271.760	6,385.85	-919.19	-8,495.97	8,500.44	2.33	-2.29	0.47
14,629.00	89.90	272.630	6,385.85	-915.74	-8,585.91	8,590.35	0.99	-0.22	0.97
14,721.00	89.87	272.680	6,386.03	-911.48	-8,677.81	8,682.23	0.06	-0.03	0.05
14,812.00	89.77	271.860	6,386.32	-907.88	-8,768.73	8,773.14	0.91	-0.11	-0.90
14,903.00	90.44	270.890	6,386.15	-905.69	-8,859.71	8,864.10	1.30	0.74	-1.07
14,994.00	89.60	270.830	6,386.12	-904.33	-8,950.69	8,955.08	0.93	-0.92	-0.07
15,085.00	90.10	271.460	6,386.36	-902.51	-9,041.68	9,046.05	0.88	0.55	0.69
15,176.00	89.43	270.780	6,386.73	-900.73	-9,132.66	9,137.02	1.05	-0.74	-0.75
15,267.00	89.13	271.330	6,387.87	-899.05	-9,223.63	9,227.99	0.69	-0.33	0.60
15,358.00	89.97	271.800	6,388.59	-896.57	-9,314.60	9,318.94	1.06	0.92	0.52
15,450.00	88.86	271.030	6,389.53	-894.30	-9,406.56	9,410.89	1.47	-1.21	-0.84
15,541.00	88.62	269.430	6,391.53	-893.93	-9,497.53	9,501.86	1.78	-0.26	-1.76
15,633.00	88.89	269.560	6,393.53	-894.74	-9,589.51	9,593.84	0.33	0.29	0.14

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-4033C
Project:	Weld County, CO NAD 83	TVD Reference:	GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)
Site:	Anschutz Equus Farms 4-62-33_34 SWNW Pad [GOOD]	MD Reference:	GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)
Well:	Anschutz Equus Farms 4-62-32-4033C	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)
15,725.00	88.42	268.940	6,395.69	-895.95	-9,681.48	9,685.81	0.85	-0.51	-0.67
15,816.00	89.09	269.290	6,397.66	-897.35	-9,772.44	9,776.79	0.83	0.74	0.38
15,910.00	88.99	269.460	6,399.24	-898.38	-9,866.42	9,870.77	0.21	-0.11	0.18
16,003.00	90.00	270.760	6,400.06	-898.20	-9,959.42	9,963.76	1.77	1.09	1.40
16,097.00	87.65	268.450	6,401.99	-898.85	-10,053.38	10,057.73	3.51	-2.50	-2.46
16,191.00	87.65	268.690	6,405.84	-901.19	-10,147.27	10,151.63	0.26	0.00	0.26
16,285.00	87.08	268.560	6,410.16	-903.44	-10,241.15	10,245.51	0.62	-0.61	-0.14
16,380.00	86.47	268.830	6,415.51	-905.60	-10,335.97	10,340.35	0.70	-0.64	0.28
16,462.00	85.71	268.210	6,421.10	-907.72	-10,417.75	10,422.14	1.20	-0.93	-0.76
Last SDI MWD Survey									
16,518.00	85.71	268.210	6,425.29	-909.46	-10,473.57	10,477.96	0.00	0.00	0.00
Projection to TD									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	-0.12	0.08	First CoreTech Survey
675.00	674.98	-4.07	-0.50	Last CoreTech Survey
881.00	880.98	-4.68	-0.77	First SDI MWD Survey
5,888.00	5,759.58	-862.35	-164.10	Curve KOP
5,909.00	5,780.55	-862.53	-165.24	First SDI MWD Curve Survey
6,745.00	6,329.33	-864.08	-709.61	Last SDI MWD Curve Survey
6,800.00	6,330.42	-863.46	-764.60	Casing Point
6,865.00	6,331.58	-862.66	-829.58	First SDI MWD Lateral Survey
16,462.00	6,421.10	-907.72	-10,417.75	Last SDI MWD Survey
16,518.00	6,425.29	-909.46	-10,473.57	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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