



Project: Weld County, CO NAD 83
Site: Anschutz Equus Farms 4-62-33_34 SWNW Pad [GOOD]
Well: Anschutz Equus Farms 4-62-32-2417C
Wellbore: OH
Design: OH

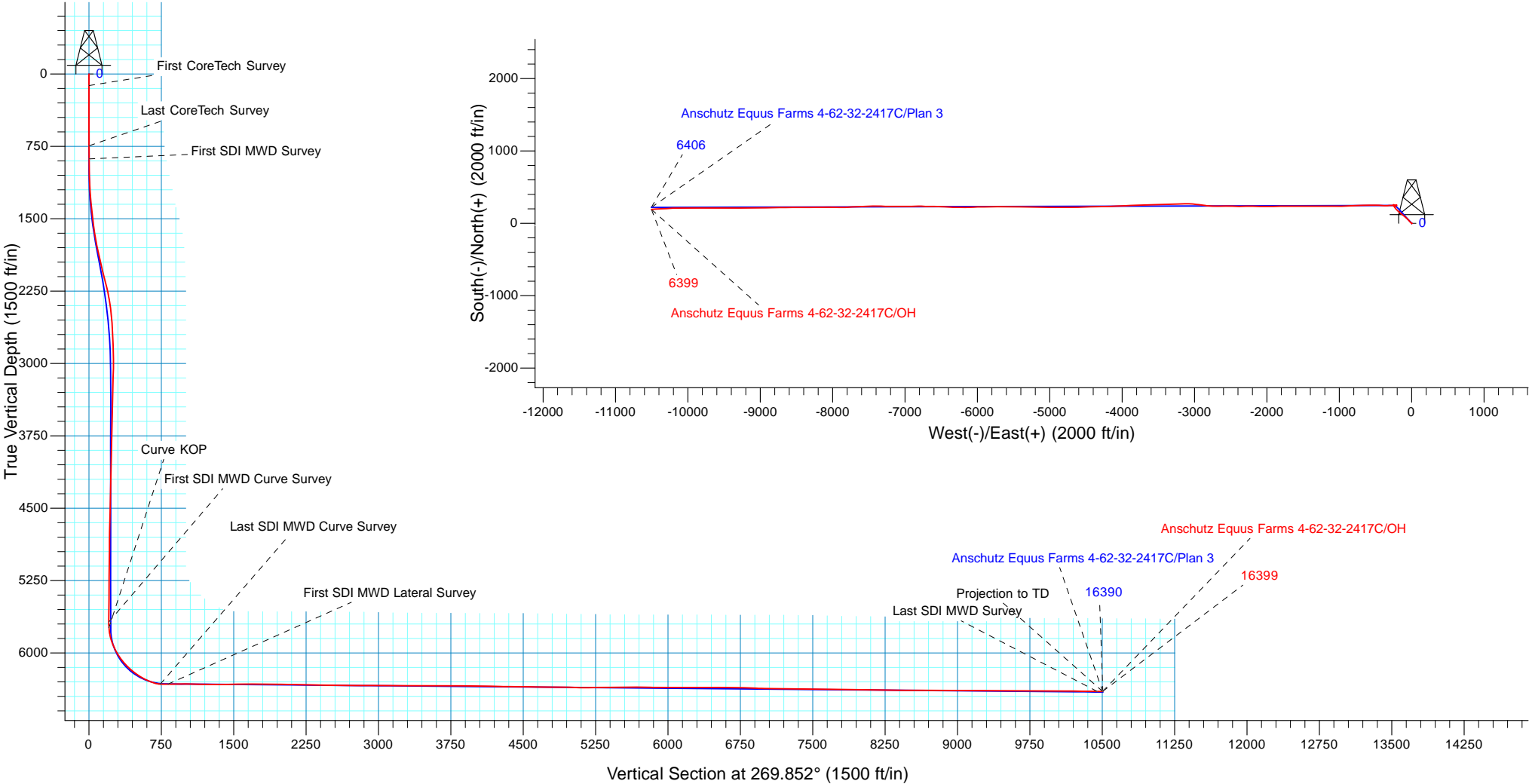


WELL DETAILS: Anschutz Equus Farms 4-62-32-2417C			
GL 4657.3' & KB 20' @ 4677.30ft (Savanna 802)	4657.30		
Northing	Easting	Latitude	Longitude
1343489.57	3324452.81	40° 16' 13.580 N	104° 20' 14.032 W

Design: OH (Anschutz Equus Farms 4-62-32-2417C/OH)	
Created By: Seth Burstad	Date: 10-10-2017

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
120.00	120.00	0.31	112.130	-0.12	0.30	-0.30	0.32	First CoreTech Survey
745.00	745.00	0.13	329.850	-0.06	-0.59	0.59	2.23	Last CoreTech Survey
881.00	881.00	0.12	253.950	0.03	-0.80	0.80	2.53	First SDI MWD Survey
5681.27	5723.00	0.26	91.470	250.84	-206.24	205.59	431.67	First SDI MWD Curve Survey
5740.22	5782.00	4.01	259.084	250.45	-208.13	207.48	435.13	Curve KOP
6323.64	6629.00	87.05	268.240	247.69	-739.62	738.98	965.94	Last SDI MWD Curve Survey
6324.66	6708.00	91.48	265.870	243.63	-818.48	817.85	1044.92	First SDI MWD Lateral Survey
6399.09	16343.00	89.83	266.530	197.25	-10448.34	10447.79	10678.94	Last SDI MWD Survey
6399.26	16399.00	89.83	266.530	193.86	-10504.23	10503.70	10734.94	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 4-62-32-2417C

OH

Design: OH

Standard Survey Report

10 October, 2017



Scientific Drilling

www.scientificdrilling.com



Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
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 4-62-32-2417C	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 4-62-32-2417C, 1901' FNL 330' FWL Sec 33 T4N R62W					
Well Position	+N/-S	0.00 ft	Northing:	1,343,489.57 usft	Latitude:	40° 16' 13.580 N
	+E/-W	0.00 ft	Easting:	3,324,452.81 usft	Longitude:	104° 20' 14.032 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	269.852	

Survey Program	Date	10/10/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
120.00	745.00	Survey #1 - Surface Gyro (OH)	Standard Keeper	Standard Wireline Keeper ver 1.0.2	
881.00	6,629.00	Survey #2 - Intermediate (OH)	OWSG MWD	OWSG MWD - Standard	
6,708.00	16,399.00	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	
120.00	0.31	112.130	120.00	-0.12	0.30	-0.30	0.26	0.26	0.00	
First CoreTech Survey										
220.00	0.15	165.020	220.00	-0.35	0.59	-0.58	0.25	-0.16	52.89	
320.00	0.18	272.080	320.00	-0.47	0.46	-0.46	0.27	0.03	107.06	
420.00	0.14	280.990	420.00	-0.44	0.19	-0.18	0.05	-0.04	8.91	
520.00	0.05	313.090	520.00	-0.39	0.03	-0.03	0.10	-0.09	32.10	

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
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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 4-62-32-2417C	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)
620.00	0.05	225.740	620.00	-0.39	-0.03	0.03	0.07	0.00	-87.35
720.00	0.56	302.800	720.00	-0.16	-0.47	0.47	0.55	0.51	77.06
745.00	0.13	329.850	745.00	-0.06	-0.59	0.59	1.79	-1.72	108.20
Last CoreTech Survey									
881.00	0.12	253.950	881.00	0.03	-0.80	0.80	0.11	-0.01	-55.81
First SDI MWD Survey									
1,064.00	2.44	309.970	1,063.94	2.48	-3.97	3.97	1.30	1.27	30.61
1,247.00	5.91	313.080	1,246.43	11.42	-13.84	13.81	1.90	1.90	1.70
1,338.00	8.52	316.600	1,336.70	19.52	-21.90	21.85	2.91	2.87	3.87
1,429.00	9.79	318.960	1,426.54	30.25	-31.61	31.53	1.46	1.40	2.59
1,521.00	10.47	319.090	1,517.10	42.47	-42.22	42.11	0.74	0.74	0.14
1,612.00	11.59	316.230	1,606.42	55.32	-53.96	53.82	1.37	1.23	-3.14
1,703.00	12.25	312.000	1,695.46	68.38	-67.46	67.28	1.20	0.73	-4.65
1,794.00	13.08	308.420	1,784.25	81.24	-82.70	82.49	1.25	0.91	-3.93
1,885.00	16.42	310.810	1,872.24	96.05	-100.51	100.26	3.73	3.67	2.63
1,977.00	18.42	308.530	1,960.01	113.60	-121.72	121.43	2.30	2.17	-2.48
2,069.00	18.28	308.060	2,047.33	131.55	-144.45	144.11	0.22	-0.15	-0.51
2,160.00	17.92	311.360	2,133.83	149.60	-166.20	165.81	1.19	-0.40	3.63
2,251.00	16.59	310.520	2,220.74	167.29	-186.58	186.15	1.49	-1.46	-0.92
2,342.00	15.06	314.700	2,308.29	184.05	-204.86	204.39	2.10	-1.68	4.59
2,436.00	12.53	321.700	2,399.57	200.65	-219.87	219.35	3.22	-2.69	7.45
2,529.00	11.23	323.460	2,490.58	215.84	-231.51	230.95	1.45	-1.40	1.89
2,623.00	5.95	323.020	2,583.49	227.10	-239.90	239.31	5.62	-5.62	-0.47
2,718.00	4.66	329.010	2,678.09	234.34	-244.85	244.24	1.48	-1.36	6.31
2,811.00	4.79	327.990	2,770.77	240.87	-248.85	248.23	0.17	0.14	-1.10
2,904.00	3.81	333.530	2,863.51	246.93	-252.29	251.65	1.14	-1.05	5.96
2,998.00	3.13	352.710	2,957.34	252.27	-254.00	253.35	1.42	-0.72	20.40
3,092.00	2.03	25.820	3,051.25	256.31	-253.60	252.94	1.92	-1.17	35.22
3,186.00	1.82	99.790	3,145.21	257.56	-251.41	250.74	2.47	-0.22	78.69
3,281.00	1.76	124.070	3,240.16	256.48	-248.71	248.05	0.79	-0.06	25.56
3,374.00	1.64	134.510	3,333.12	254.75	-246.58	245.92	0.36	-0.13	11.23
3,469.00	2.01	131.130	3,428.07	252.70	-244.36	243.70	0.41	0.39	-3.56
3,563.00	2.01	131.910	3,522.01	250.52	-241.89	241.24	0.03	0.00	0.83
3,656.00	1.86	134.540	3,614.96	248.37	-239.60	238.96	0.19	-0.16	2.83
3,750.00	2.02	132.490	3,708.91	246.18	-237.29	236.65	0.19	0.17	-2.18
3,844.00	1.81	139.830	3,802.85	243.93	-235.11	234.48	0.34	-0.22	7.81
3,937.00	1.79	136.090	3,895.81	241.76	-233.16	232.53	0.13	-0.02	-4.02
4,031.00	1.91	137.670	3,989.76	239.54	-231.08	230.46	0.14	0.13	1.68
4,125.00	1.59	139.180	4,083.72	237.40	-229.17	228.56	0.34	-0.34	1.61
4,220.00	0.84	138.180	4,178.69	235.88	-227.85	227.24	0.79	-0.79	-1.05
4,314.00	1.71	43.970	4,272.68	236.38	-226.42	225.80	2.08	0.93	-100.22
4,408.00	2.23	38.040	4,366.62	238.83	-224.32	223.70	0.59	0.55	-6.31
4,502.00	2.53	38.160	4,460.54	241.90	-221.91	221.28	0.32	0.32	0.13

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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)
4,596.00	2.86	36.740	4,554.44	245.41	-219.22	218.59	0.36	0.35	-1.51
4,690.00	2.08	41.440	4,648.35	248.57	-216.69	216.05	0.86	-0.83	5.00
4,784.00	0.78	87.210	4,742.32	249.88	-214.92	214.28	1.74	-1.38	48.69
4,877.00	0.65	72.810	4,835.31	250.06	-213.79	213.14	0.24	-0.14	-15.48
4,971.00	0.72	84.660	4,929.30	250.28	-212.69	212.04	0.17	0.07	12.61
5,066.00	0.86	102.280	5,024.30	250.18	-211.40	210.75	0.29	0.15	18.55
5,160.00	0.90	92.590	5,118.28	250.00	-209.97	209.32	0.16	0.04	-10.31
5,254.00	0.29	78.770	5,212.28	250.01	-209.00	208.35	0.66	-0.65	-14.70
5,347.00	0.18	356.440	5,305.28	250.20	-208.78	208.13	0.34	-0.12	-88.53
5,441.00	0.71	65.580	5,399.28	250.59	-208.26	207.61	0.71	0.56	73.55
5,534.00	0.44	72.200	5,492.27	250.94	-207.39	206.74	0.30	-0.29	7.12
5,628.00	0.38	108.430	5,586.27	250.95	-206.75	206.10	0.28	-0.06	38.54
5,723.00	0.26	91.470	5,681.27	250.84	-206.24	205.59	0.16	-0.13	-17.85
First SDI MWD Curve Survey									
5,782.00	4.01	259.084	5,740.22	250.45	-208.13	207.48	7.22	6.35	284.09
Curve KOP									
5,816.00	6.46	259.370	5,774.08	249.87	-211.17	210.53	7.22	7.22	0.84
5,910.00	17.72	268.320	5,865.85	248.47	-230.74	230.09	12.11	11.98	9.52
6,004.00	26.83	268.520	5,952.75	247.50	-266.32	265.68	9.69	9.69	0.21
6,097.00	32.20	267.810	6,033.65	246.01	-312.09	311.45	5.79	5.77	-0.76
6,191.00	41.85	270.190	6,108.61	245.16	-368.61	367.98	10.38	10.27	2.53
6,285.00	49.23	274.350	6,174.42	247.97	-435.57	434.93	8.46	7.85	4.43
6,378.00	55.69	270.820	6,231.06	251.19	-509.18	508.53	7.57	6.95	-3.80
6,472.00	64.20	269.240	6,278.10	251.19	-590.46	589.81	9.17	9.05	-1.68
6,567.00	72.77	268.400	6,312.91	249.35	-678.74	678.10	9.06	9.02	-0.88
6,597.00	79.87	268.560	6,320.00	248.58	-707.86	707.22	23.67	23.67	0.53
6,629.00	87.05	268.240	6,323.64	247.69	-739.62	738.98	22.46	22.44	-1.00
Last SDI MWD Curve Survey									
6,708.00	91.48	265.870	6,324.66	243.63	-818.48	817.85	6.36	5.61	-3.00
First SDI MWD Lateral Survey									
6,771.00	90.67	268.000	6,323.47	240.26	-881.38	880.76	3.62	-1.29	3.38
6,864.00	90.87	268.740	6,322.22	237.62	-974.33	973.71	0.82	0.22	0.80
6,958.00	88.63	269.960	6,322.63	236.55	-1,068.32	1,067.70	2.71	-2.38	1.30
7,052.00	88.25	269.780	6,325.19	236.34	-1,162.28	1,161.67	0.45	-0.40	-0.19
7,146.00	88.96	270.010	6,327.48	236.17	-1,256.25	1,255.64	0.79	0.76	0.24
7,239.00	90.37	270.090	6,328.03	236.25	-1,349.25	1,348.63	1.52	1.52	0.09
7,333.00	91.11	270.570	6,326.81	236.79	-1,443.24	1,442.62	0.94	0.79	0.51
7,427.00	91.27	269.900	6,324.86	237.17	-1,537.22	1,536.60	0.73	0.17	-0.71
7,521.00	90.54	269.790	6,323.37	236.92	-1,631.20	1,630.59	0.79	-0.78	-0.12
7,615.00	89.26	269.600	6,323.54	236.42	-1,725.20	1,724.58	1.38	-1.36	-0.20
7,709.00	89.70	270.320	6,324.39	236.35	-1,819.20	1,818.58	0.90	0.47	0.77
7,803.00	88.79	269.000	6,325.63	235.80	-1,913.18	1,912.57	1.71	-0.97	-1.40
7,898.00	89.60	270.440	6,326.97	235.33	-2,008.17	2,007.56	1.74	0.85	1.52

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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)
7,992.00	89.26	270.050	6,327.90	235.73	-2,102.16	2,101.55	0.55	-0.36	-0.41
8,086.00	89.23	270.580	6,329.14	236.25	-2,196.15	2,195.54	0.56	-0.03	0.56
8,180.00	88.66	269.100	6,330.87	235.99	-2,290.13	2,289.52	1.69	-0.61	-1.57
8,274.00	87.72	270.300	6,333.84	235.50	-2,384.08	2,383.47	1.62	-1.00	1.28
8,368.00	89.60	271.890	6,336.04	237.29	-2,478.03	2,477.41	2.62	2.00	1.69
8,462.00	89.63	269.630	6,336.67	238.54	-2,572.02	2,571.39	2.40	0.03	-2.40
8,555.00	89.53	269.210	6,337.35	237.60	-2,665.01	2,664.39	0.46	-0.11	-0.45
8,649.00	89.87	272.310	6,337.84	238.84	-2,758.99	2,758.36	3.32	0.36	3.30
8,744.00	89.53	276.770	6,338.34	246.36	-2,853.67	2,853.02	4.71	-0.36	4.69
8,838.00	90.57	277.610	6,338.26	258.13	-2,946.92	2,946.25	1.42	1.11	0.89
8,932.00	90.03	274.490	6,337.77	268.03	-3,040.39	3,039.68	3.37	-0.57	-3.32
9,026.00	89.13	268.390	6,338.46	270.39	-3,134.31	3,133.60	6.56	-0.96	-6.49
9,120.00	89.53	268.060	6,339.56	267.48	-3,228.26	3,227.56	0.55	0.43	-0.35
9,214.00	89.40	268.840	6,340.43	264.94	-3,322.22	3,321.52	0.84	-0.14	0.83
9,308.00	89.63	268.130	6,341.23	262.45	-3,416.18	3,415.49	0.79	0.24	-0.76
9,402.00	89.53	267.820	6,341.92	259.13	-3,510.12	3,509.44	0.35	-0.11	-0.33
9,495.00	90.23	268.420	6,342.11	256.08	-3,603.07	3,602.40	0.99	0.75	0.65
9,589.00	91.21	268.270	6,340.93	253.37	-3,697.02	3,696.35	1.05	1.04	-0.16
9,683.00	89.16	268.520	6,340.63	250.74	-3,790.98	3,790.32	2.20	-2.18	0.27
9,776.00	88.56	267.350	6,342.48	247.38	-3,883.90	3,883.25	1.41	-0.65	-1.26
9,871.00	89.60	268.120	6,344.00	243.63	-3,978.81	3,978.17	1.36	1.09	0.81
9,964.00	90.40	267.330	6,344.00	239.94	-4,071.73	4,071.10	1.21	0.86	-0.85
10,058.00	87.62	266.520	6,345.63	234.90	-4,165.58	4,164.95	3.08	-2.96	-0.86
10,153.00	88.36	270.440	6,348.96	232.38	-4,260.46	4,259.85	4.20	0.78	4.13
10,247.00	89.80	268.770	6,350.47	231.73	-4,354.44	4,353.83	2.35	1.53	-1.78
10,340.00	89.93	268.660	6,350.69	229.65	-4,447.42	4,446.81	0.18	0.14	-0.12
10,431.00	89.46	268.880	6,351.17	227.69	-4,538.40	4,537.79	0.57	-0.52	0.24
10,522.00	89.26	268.050	6,352.19	225.26	-4,629.36	4,628.76	0.94	-0.22	-0.91
10,613.00	89.09	269.700	6,353.50	223.47	-4,720.33	4,719.74	1.82	-0.19	1.81
10,705.00	89.40	269.650	6,354.71	222.95	-4,812.32	4,811.73	0.34	0.34	-0.05
10,796.00	89.23	269.860	6,355.80	222.56	-4,903.31	4,902.72	0.30	-0.19	0.23
10,887.00	88.36	268.800	6,357.71	221.50	-4,994.28	4,993.69	1.51	-0.96	-1.16
10,979.00	88.86	270.650	6,359.95	221.05	-5,086.25	5,085.66	2.08	0.54	2.01
11,069.00	90.70	272.120	6,360.29	223.23	-5,176.22	5,175.62	2.62	2.04	1.63
11,160.00	90.67	271.740	6,359.20	226.29	-5,267.16	5,266.56	0.42	-0.03	-0.42
11,252.00	90.60	271.380	6,358.18	228.80	-5,359.12	5,358.51	0.40	-0.08	-0.39
11,343.00	90.77	270.770	6,357.10	230.51	-5,450.10	5,449.48	0.70	0.19	-0.67
11,435.00	90.94	270.450	6,355.72	231.49	-5,542.08	5,541.46	0.39	0.18	-0.35
11,526.00	89.56	269.360	6,355.33	231.33	-5,633.08	5,632.46	1.93	-1.52	-1.20
11,617.00	89.46	269.200	6,356.10	230.19	-5,724.07	5,723.45	0.21	-0.11	-0.18
11,708.00	88.72	268.340	6,357.55	228.24	-5,815.03	5,814.42	1.25	-0.81	-0.95
11,800.00	90.13	269.980	6,358.47	226.89	-5,907.01	5,906.41	2.35	1.53	1.78
11,891.00	89.90	269.130	6,358.45	226.18	-5,998.01	5,997.40	0.97	-0.25	-0.93

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
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 4-62-32-2417C	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)
11,982.00	89.93	267.910	6,358.58	223.83	-6,088.98	6,088.38	1.34	0.03	-1.34
12,073.00	89.36	269.130	6,359.15	221.48	-6,179.94	6,179.35	1.48	-0.63	1.34
12,165.00	90.20	271.020	6,359.50	221.60	-6,271.94	6,271.34	2.25	0.91	2.05
12,256.00	90.50	272.450	6,358.95	224.36	-6,362.89	6,362.29	1.61	0.33	1.57
12,347.00	89.77	273.030	6,358.73	228.71	-6,453.78	6,453.17	1.02	-0.80	0.64
12,439.00	89.33	271.780	6,359.45	232.57	-6,545.70	6,545.08	1.44	-0.48	-1.36
12,530.00	89.26	270.110	6,360.57	234.07	-6,636.68	6,636.05	1.84	-0.08	-1.84
12,622.00	90.54	271.380	6,360.73	235.26	-6,728.66	6,728.03	1.96	1.39	1.38
12,713.00	88.06	269.550	6,361.85	236.00	-6,819.64	6,819.01	3.39	-2.73	-2.01
12,804.00	86.94	269.240	6,365.82	235.04	-6,910.55	6,909.92	1.28	-1.23	-0.34
12,896.00	89.16	269.850	6,368.95	234.31	-7,002.49	7,001.86	2.50	2.41	0.66
12,987.00	88.99	270.220	6,370.41	234.37	-7,093.48	7,092.85	0.45	-0.19	0.41
13,078.00	89.46	270.120	6,371.65	234.64	-7,184.47	7,183.84	0.53	0.52	-0.11
13,169.00	89.06	270.580	6,372.82	235.20	-7,275.46	7,274.83	0.67	-0.44	0.51
13,260.00	89.46	272.220	6,374.00	237.42	-7,366.42	7,365.78	1.85	0.44	1.80
13,351.00	89.46	268.580	6,374.85	238.05	-7,457.40	7,456.76	4.00	0.00	-4.00
13,443.00	89.19	267.830	6,375.94	235.17	-7,549.35	7,548.71	0.87	-0.29	-0.82
13,534.00	89.26	267.290	6,377.17	231.30	-7,640.25	7,639.63	0.60	0.08	-0.59
13,625.00	89.30	266.300	6,378.31	226.21	-7,731.10	7,730.49	1.09	0.04	-1.09
13,717.00	89.03	268.040	6,379.65	221.67	-7,822.98	7,822.38	1.91	-0.29	1.89
13,808.00	89.36	271.410	6,380.93	221.23	-7,913.95	7,913.36	3.72	0.36	3.70
13,899.00	89.53	270.930	6,381.81	223.09	-8,004.93	8,004.33	0.56	0.19	-0.53
13,991.00	88.83	270.000	6,383.13	223.84	-8,096.92	8,096.31	1.27	-0.76	-1.01
14,083.00	88.76	268.350	6,385.07	222.51	-8,188.88	8,188.28	1.79	-0.08	-1.79
14,174.00	89.20	269.420	6,386.69	220.74	-8,279.85	8,279.25	1.27	0.48	1.18
14,265.00	89.13	269.940	6,388.01	220.23	-8,370.84	8,370.24	0.58	-0.08	0.57
14,357.00	90.00	270.230	6,388.71	220.37	-8,462.84	8,462.24	1.00	0.95	0.32
14,448.00	90.03	269.770	6,388.69	220.37	-8,553.84	8,553.24	0.51	0.03	-0.51
14,539.00	89.73	269.380	6,388.88	219.70	-8,644.83	8,644.24	0.54	-0.33	-0.43
14,629.00	90.07	268.980	6,389.03	218.41	-8,734.82	8,734.23	0.58	0.38	-0.44
14,721.00	90.03	268.910	6,388.95	216.71	-8,826.81	8,826.22	0.09	-0.04	-0.08
14,812.00	89.73	269.090	6,389.14	215.13	-8,917.79	8,917.21	0.38	-0.33	0.20
14,903.00	89.66	269.160	6,389.63	213.74	-9,008.78	9,008.20	0.11	-0.08	0.08
14,993.00	88.73	270.150	6,390.89	213.19	-9,098.77	9,098.19	1.51	-1.03	1.10
15,085.00	89.40	270.470	6,392.39	213.69	-9,190.75	9,190.17	0.81	0.73	0.35
15,176.00	89.93	269.670	6,392.93	213.80	-9,281.75	9,281.17	1.05	0.58	-0.88
15,267.00	89.93	270.020	6,393.04	213.56	-9,372.75	9,372.17	0.38	0.00	0.38
15,358.00	90.20	269.750	6,392.93	213.37	-9,463.75	9,463.17	0.42	0.30	-0.30
15,450.00	90.67	269.610	6,392.24	212.86	-9,555.75	9,555.16	0.53	0.51	-0.15
15,541.00	89.46	270.060	6,392.13	212.60	-9,646.74	9,646.16	1.42	-1.33	0.49
15,632.00	89.23	269.850	6,393.17	212.53	-9,737.74	9,737.16	0.34	-0.25	-0.23
15,724.00	89.33	269.200	6,394.33	211.76	-9,829.73	9,829.15	0.71	0.11	-0.71

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-32-2417C
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 4-62-32-2417C	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)
15,816.00	89.70	270.110	6,395.11	211.21	-9,921.72	9,921.14	1.07	0.40	0.99
15,909.00	90.10	270.660	6,395.27	211.84	-10,014.72	10,014.14	0.73	0.43	0.59
16,003.00	89.40	269.370	6,395.68	211.86	-10,108.71	10,108.13	1.56	-0.74	-1.37
16,097.00	89.66	268.380	6,396.45	210.01	-10,202.69	10,202.12	1.09	0.28	-1.05
16,191.00	89.43	266.620	6,397.20	205.91	-10,296.60	10,296.03	1.89	-0.24	-1.87
16,285.00	88.99	266.880	6,398.49	200.59	-10,390.44	10,389.88	0.54	-0.47	0.28
16,343.00	89.83	266.530	6,399.09	197.25	-10,448.34	10,447.79	1.57	1.45	-0.60
Last SDI MWD Survey									
16,399.00	89.83	266.530	6,399.26	193.86	-10,504.23	10,503.70	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)	
120.00	120.00	-0.12	0.30	First CoreTech Survey
745.00	745.00	-0.06	-0.59	Last CoreTech Survey
881.00	881.00	0.03	-0.80	First SDI MWD Survey
5,723.00	5,681.27	250.84	-206.24	First SDI MWD Curve Survey
5,782.00	5,740.22	250.45	-208.13	Curve KOP
6,629.00	6,323.64	247.69	-739.62	Last SDI MWD Curve Survey
6,708.00	6,324.66	243.63	-818.48	First SDI MWD Lateral Survey
16,343.00	6,399.09	197.25	-10,448.34	Last SDI MWD Survey
16,399.00	6,399.26	193.86	-10,504.23	Projection to TD

Checked By: _____ Approved By: _____ Date: _____