

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

Project: Weld County, CO NAD 83  
 Site: Anschutz Equus Farms 4-62-28\_27 NWSW Pad  
 Well: Anschutz Equus Farms 4-62-28-3240C  
 Wellbore: OH  
 Design: Plan 2



Azimuths to True North  
 Magnetic North: 8.27°

Magnetic Field  
 Strength: 52365.5nT  
 Dip Angle: 66.95°  
 Date: 6/28/2017  
 Model: HDGM

Plan: Plan 2 (Anschutz Equus Farms 4-62-28-3240C/OH)

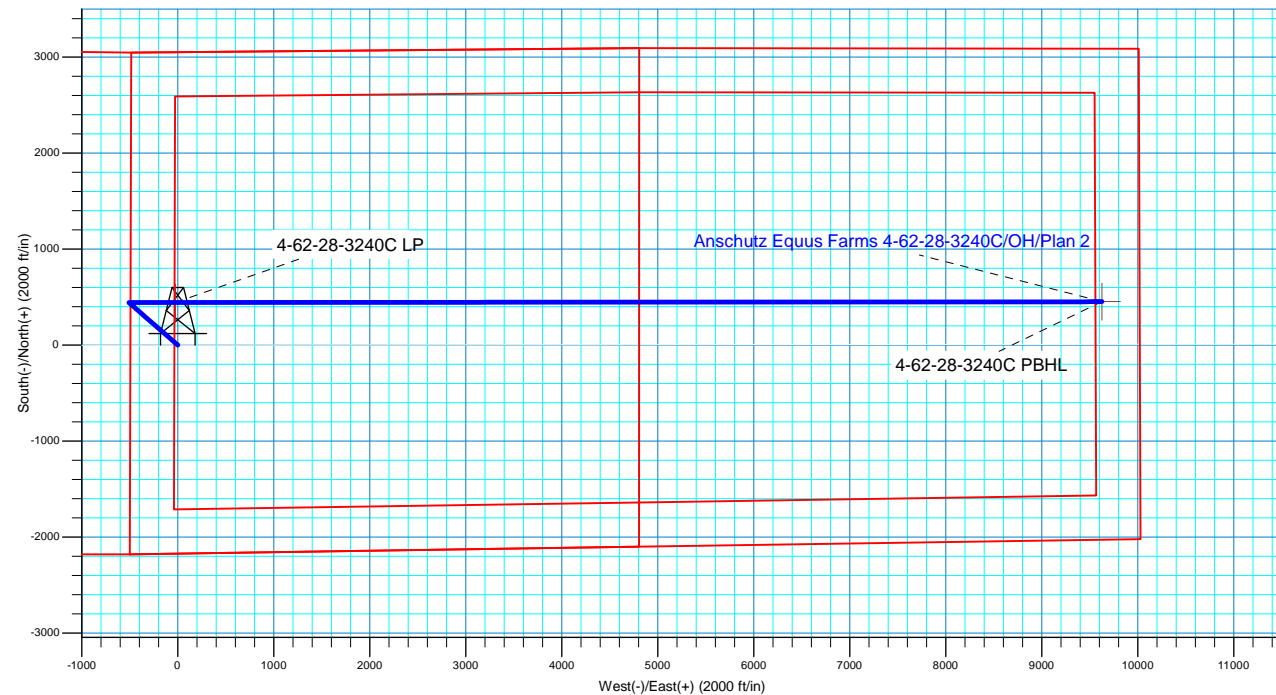
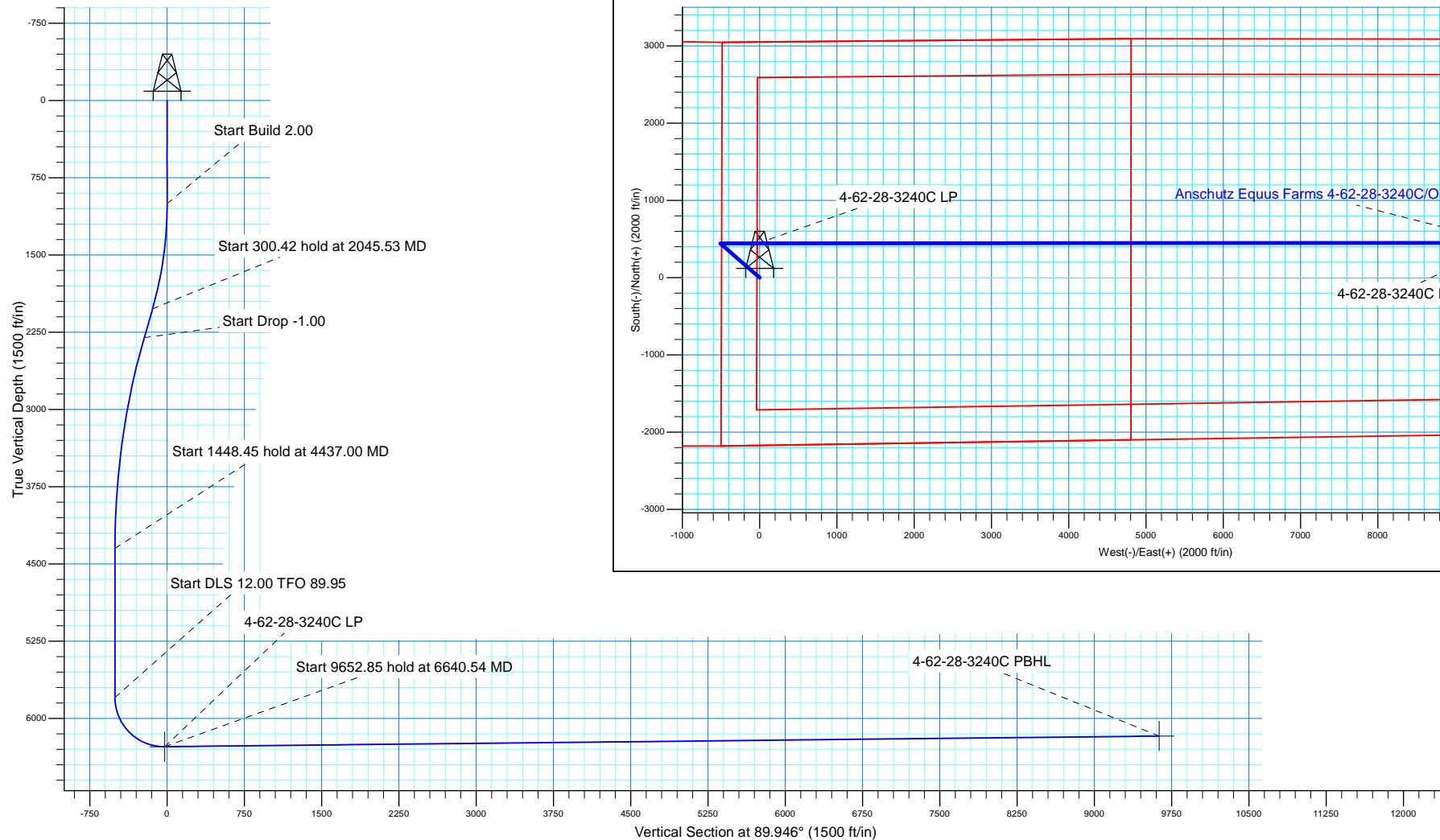
Created By: Seth Burstad Date: 6-28-2017

**SECTION DETAILS**

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
1000.00	0.00	0.000	1000.00	0.00	0.00	0.00	0.00	0.00
2045.53	20.91	311.094	2022.47	124.02	-142.19	2.00	311.09	-142.08
2345.95	20.91	311.094	2303.10	194.49	-223.00	0.00	0.00	-222.82
4437.00	0.00	0.000	4348.05	442.53	-507.39	1.00	180.00	-506.97
5885.45	0.00	0.000	5796.50	442.53	-507.39	0.00	0.00	-506.97
6640.54	90.61	89.946	6273.94	442.99	-24.83	12.00	89.95	-24.42
16293.39	90.61	89.946	6171.00	452.16	9627.46	0.00	0.00	9627.88

**WELL DETAILS: Anschutz Equus Farms 4-62-28-3240C**

		GL 4624' & KB 20' @ 4644.00ft		4624.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1347562.97	3324530.53	40° 16' 53.821 N	104° 20' 12.340 W





**Bill Barrett Corporation**

## **Bill Barrett Corp.**

**Weld County, CO NAD 83**

**Anschutz Equus Farms 4-62-28\_27 NWSW Pad**

**Anschutz Equus Farms 4-62-28-3240C**

**OH**

**Plan: Plan 2**

## **Standard Planning Report**

**28 June, 2017**



**Scientific Drilling**

[www.scientificdrilling.com](http://www.scientificdrilling.com)



<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-28-3240C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-28-3240C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 2		

<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 NWSW Pad, Site Center : Anschutz Equus Farms 4-62-28-3240C			
Site Position:		Northing:	1,347,562.99 usft	Latitude:	40° 16' 53.821 N
From:	Lat/Long	Easting:	3,324,530.53 usft	Longitude:	104° 20' 12.340 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.75 °

Well	Anschutz Equus Farms 4-62-28-3240C, 2170' FSL 486' FWL Sec 28 T4N R62W					
Well Position	+N/-S	-0.02 ft	Northing:	1,347,562.97 usft	Latitude:	40° 16' 53.821 N
	+E/-W	0.00 ft	Easting:	3,324,530.53 usft	Longitude:	104° 20' 12.340 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,624.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2016	4/18/2017	8.14	66.86	52,417
	HDGM	6/28/2017	8.27	66.95	52,366

<b>Design</b>	Plan 2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	89.946

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,045.53	20.91	311.094	2,022.47	124.02	-142.19	2.00	2.00	0.00	311.09	
2,345.95	20.91	311.094	2,303.10	194.49	-223.00	0.00	0.00	0.00	0.00	
4,437.00	0.00	0.000	4,348.05	442.53	-507.39	1.00	-1.00	0.00	180.00	
5,885.45	0.00	0.000	5,796.50	442.53	-507.39	0.00	0.00	0.00	0.00	
6,640.55	90.61	89.946	6,273.94	442.99	-24.83	12.00	12.00	11.91	89.95	
16,293.39	90.61	89.946	6,171.00	452.16	9,627.46	0.00	0.00	0.00	0.00	4-62-28-3240C PBHL

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-28-3240C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-28-3240C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 2		

Planned 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	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Start Build 2.00</b>										
1,100.00	2.00	311.094	1,099.98	1.15	-1.32	-1.31	2.00	2.00	0.00	
1,200.00	4.00	311.094	1,199.84	4.59	-5.26	-5.25	2.00	2.00	0.00	
1,300.00	6.00	311.094	1,299.45	10.32	-11.83	-11.82	2.00	2.00	0.00	
1,400.00	8.00	311.094	1,398.70	18.33	-21.01	-20.99	2.00	2.00	0.00	
1,500.00	10.00	311.094	1,497.47	28.61	-32.80	-32.77	2.00	2.00	0.00	
1,600.00	12.00	311.094	1,595.62	41.15	-47.18	-47.14	2.00	2.00	0.00	
1,700.00	14.00	311.094	1,693.06	55.93	-64.13	-64.08	2.00	2.00	0.00	
1,800.00	16.00	311.094	1,789.64	72.94	-83.64	-83.57	2.00	2.00	0.00	
1,900.00	18.00	311.094	1,885.27	92.16	-105.67	-105.58	2.00	2.00	0.00	
2,000.00	20.00	311.094	1,979.82	113.56	-130.20	-130.10	2.00	2.00	0.00	
2,045.53	20.91	311.094	2,022.47	124.02	-142.19	-142.08	2.00	2.00	0.00	
<b>Start 300.42 hold at 2045.53 MD</b>										
2,100.00	20.91	311.094	2,073.36	136.80	-156.85	-156.72	0.00	0.00	0.00	
2,200.00	20.91	311.094	2,166.77	160.26	-183.74	-183.59	0.00	0.00	0.00	
2,300.00	20.91	311.094	2,260.18	183.72	-210.64	-210.47	0.00	0.00	0.00	
2,345.95	20.91	311.094	2,303.10	194.49	-223.00	-222.82	0.00	0.00	0.00	
<b>Start Drop -1.00</b>										
2,400.00	20.37	311.094	2,353.69	207.02	-237.36	-237.17	1.00	-1.00	0.00	
2,500.00	19.37	311.094	2,447.73	229.36	-262.98	-262.76	1.00	-1.00	0.00	
2,600.00	18.37	311.094	2,542.36	250.62	-287.35	-287.11	1.00	-1.00	0.00	
2,700.00	17.37	311.094	2,637.53	270.79	-310.47	-310.22	1.00	-1.00	0.00	
2,800.00	16.37	311.094	2,733.23	289.86	-332.34	-332.07	1.00	-1.00	0.00	
2,900.00	15.37	311.094	2,829.42	307.83	-352.95	-352.66	1.00	-1.00	0.00	
3,000.00	14.37	311.094	2,926.06	324.70	-372.29	-371.99	1.00	-1.00	0.00	
3,100.00	13.37	311.094	3,023.15	340.46	-390.36	-390.04	1.00	-1.00	0.00	
3,200.00	12.37	311.094	3,120.63	355.10	-407.15	-406.81	1.00	-1.00	0.00	
3,300.00	11.37	311.094	3,218.49	368.62	-422.65	-422.30	1.00	-1.00	0.00	
3,400.00	10.37	311.094	3,316.70	381.01	-436.86	-436.50	1.00	-1.00	0.00	
3,500.00	9.37	311.094	3,415.22	392.28	-449.78	-449.41	1.00	-1.00	0.00	
3,600.00	8.37	311.094	3,514.02	402.42	-461.40	-461.02	1.00	-1.00	0.00	
3,700.00	7.37	311.094	3,613.08	411.42	-471.72	-471.33	1.00	-1.00	0.00	
3,800.00	6.37	311.094	3,712.36	419.28	-480.73	-480.34	1.00	-1.00	0.00	
3,900.00	5.37	311.094	3,811.83	426.00	-488.44	-488.04	1.00	-1.00	0.00	
4,000.00	4.37	311.094	3,911.47	431.58	-494.84	-494.43	1.00	-1.00	0.00	
4,100.00	3.37	311.094	4,011.24	436.02	-499.92	-499.51	1.00	-1.00	0.00	
4,200.00	2.37	311.094	4,111.11	439.31	-503.70	-503.28	1.00	-1.00	0.00	
4,300.00	1.37	311.094	4,211.06	441.45	-506.16	-505.74	1.00	-1.00	0.00	
4,400.00	0.37	311.094	4,311.05	442.45	-507.30	-506.88	1.00	-1.00	0.00	
4,437.00	0.00	0.000	4,348.05	442.53	-507.39	-506.97	1.00	-1.00	0.00	
<b>Start 1448.45 hold at 4437.00 MD</b>										
4,500.00	0.00	0.000	4,411.05	442.53	-507.39	-506.97	0.00	0.00	0.00	

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-28-3240C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-28-3240C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 2		

Planned 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)
4,600.00	0.00	0.000	4,511.05	442.53	-507.39	-506.97	0.00	0.00	0.00
4,700.00	0.00	0.000	4,611.05	442.53	-507.39	-506.97	0.00	0.00	0.00
4,800.00	0.00	0.000	4,711.05	442.53	-507.39	-506.97	0.00	0.00	0.00
4,900.00	0.00	0.000	4,811.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,000.00	0.00	0.000	4,911.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,100.00	0.00	0.000	5,011.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,200.00	0.00	0.000	5,111.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,300.00	0.00	0.000	5,211.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,400.00	0.00	0.000	5,311.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,500.00	0.00	0.000	5,411.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,600.00	0.00	0.000	5,511.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,700.00	0.00	0.000	5,611.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,800.00	0.00	0.000	5,711.05	442.53	-507.39	-506.97	0.00	0.00	0.00
5,885.45	0.00	0.000	5,796.50	442.53	-507.39	-506.97	0.00	0.00	0.00
<b>Start DLS 12.00 TFO 89.95</b>									
5,900.00	1.75	89.946	5,811.04	442.53	-507.17	-506.75	12.00	12.00	0.00
6,000.00	13.75	89.946	5,909.95	442.54	-493.72	-493.30	12.00	12.00	0.00
6,100.00	25.75	89.946	6,003.90	442.58	-459.99	-459.58	12.00	12.00	0.00
6,200.00	37.75	89.946	6,088.78	442.62	-407.47	-407.06	12.00	12.00	0.00
6,300.00	49.75	89.946	6,160.89	442.69	-338.45	-338.04	12.00	12.00	0.00
6,400.00	61.75	89.946	6,217.08	442.77	-255.95	-255.53	12.00	12.00	0.00
6,500.00	73.75	89.946	6,254.88	442.86	-163.57	-163.15	12.00	12.00	0.00
6,600.00	85.75	89.946	6,272.65	442.95	-65.35	-64.93	12.00	12.00	0.00
6,640.55	90.61	89.946	6,273.94	442.99	-24.83	-24.42	12.00	12.00	0.00
<b>Start 9652.85 hold at 6640.54 MD</b>									
6,700.00	90.61	89.946	6,273.30	443.04	34.62	35.04	0.00	0.00	0.00
6,800.00	90.61	89.946	6,272.24	443.14	134.61	135.03	0.00	0.00	0.00
6,900.00	90.61	89.946	6,271.17	443.23	234.61	235.02	0.00	0.00	0.00
7,000.00	90.61	89.946	6,270.10	443.33	334.60	335.02	0.00	0.00	0.00
7,100.00	90.61	89.946	6,269.04	443.42	434.60	435.01	0.00	0.00	0.00
7,200.00	90.61	89.946	6,267.97	443.52	534.59	535.01	0.00	0.00	0.00
7,300.00	90.61	89.946	6,266.91	443.61	634.58	635.00	0.00	0.00	0.00
7,400.00	90.61	89.946	6,265.84	443.71	734.58	735.00	0.00	0.00	0.00
7,500.00	90.61	89.946	6,264.77	443.80	834.57	834.99	0.00	0.00	0.00
7,600.00	90.61	89.946	6,263.71	443.90	934.57	934.98	0.00	0.00	0.00
7,700.00	90.61	89.946	6,262.64	443.99	1,034.56	1,034.98	0.00	0.00	0.00
7,800.00	90.61	89.946	6,261.57	444.09	1,134.55	1,134.97	0.00	0.00	0.00
7,900.00	90.61	89.946	6,260.51	444.18	1,234.55	1,234.97	0.00	0.00	0.00
8,000.00	90.61	89.946	6,259.44	444.28	1,334.54	1,334.96	0.00	0.00	0.00
8,100.00	90.61	89.946	6,258.37	444.37	1,434.54	1,434.96	0.00	0.00	0.00
8,200.00	90.61	89.946	6,257.31	444.47	1,534.53	1,534.95	0.00	0.00	0.00
8,300.00	90.61	89.946	6,256.24	444.56	1,634.53	1,634.94	0.00	0.00	0.00
8,400.00	90.61	89.946	6,255.18	444.66	1,734.52	1,734.94	0.00	0.00	0.00
8,500.00	90.61	89.946	6,254.11	444.75	1,834.51	1,834.93	0.00	0.00	0.00
8,600.00	90.61	89.946	6,253.04	444.85	1,934.51	1,934.93	0.00	0.00	0.00
8,700.00	90.61	89.946	6,251.98	444.94	2,034.50	2,034.92	0.00	0.00	0.00
8,800.00	90.61	89.946	6,250.91	445.04	2,134.50	2,134.92	0.00	0.00	0.00
8,900.00	90.61	89.946	6,249.84	445.13	2,234.49	2,234.91	0.00	0.00	0.00
9,000.00	90.61	89.946	6,248.78	445.23	2,334.49	2,334.90	0.00	0.00	0.00
9,100.00	90.61	89.946	6,247.71	445.32	2,434.48	2,434.90	0.00	0.00	0.00
9,200.00	90.61	89.946	6,246.64	445.42	2,534.47	2,534.89	0.00	0.00	0.00
9,300.00	90.61	89.946	6,245.58	445.51	2,634.47	2,634.89	0.00	0.00	0.00
9,400.00	90.61	89.946	6,244.51	445.61	2,734.46	2,734.88	0.00	0.00	0.00

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<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-28-3240C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 2		

**Planned 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)
9,500.00	90.61	89.946	6,243.44	445.70	2,834.46	2,834.88	0.00	0.00	0.00
9,600.00	90.61	89.946	6,242.38	445.80	2,934.45	2,934.87	0.00	0.00	0.00
9,700.00	90.61	89.946	6,241.31	445.89	3,034.45	3,034.87	0.00	0.00	0.00
9,800.00	90.61	89.946	6,240.25	445.99	3,134.44	3,134.86	0.00	0.00	0.00
9,900.00	90.61	89.946	6,239.18	446.08	3,234.43	3,234.85	0.00	0.00	0.00
10,000.00	90.61	89.946	6,238.11	446.18	3,334.43	3,334.85	0.00	0.00	0.00
10,100.00	90.61	89.946	6,237.05	446.27	3,434.42	3,434.84	0.00	0.00	0.00
10,200.00	90.61	89.946	6,235.98	446.37	3,534.42	3,534.84	0.00	0.00	0.00
10,300.00	90.61	89.946	6,234.91	446.46	3,634.41	3,634.83	0.00	0.00	0.00
10,400.00	90.61	89.946	6,233.85	446.56	3,734.41	3,734.83	0.00	0.00	0.00
10,500.00	90.61	89.946	6,232.78	446.65	3,834.40	3,834.82	0.00	0.00	0.00
10,600.00	90.61	89.946	6,231.71	446.75	3,934.39	3,934.81	0.00	0.00	0.00
10,700.00	90.61	89.946	6,230.65	446.84	4,034.39	4,034.81	0.00	0.00	0.00
10,800.00	90.61	89.946	6,229.58	446.94	4,134.38	4,134.80	0.00	0.00	0.00
10,900.00	90.61	89.946	6,228.52	447.03	4,234.38	4,234.80	0.00	0.00	0.00
11,000.00	90.61	89.946	6,227.45	447.13	4,334.37	4,334.79	0.00	0.00	0.00
11,100.00	90.61	89.946	6,226.38	447.22	4,434.37	4,434.79	0.00	0.00	0.00
11,200.00	90.61	89.946	6,225.32	447.32	4,534.36	4,534.78	0.00	0.00	0.00
11,300.00	90.61	89.946	6,224.25	447.41	4,634.35	4,634.77	0.00	0.00	0.00
11,400.00	90.61	89.946	6,223.18	447.51	4,734.35	4,734.77	0.00	0.00	0.00
11,500.00	90.61	89.946	6,222.12	447.60	4,834.34	4,834.76	0.00	0.00	0.00
11,600.00	90.61	89.946	6,221.05	447.70	4,934.34	4,934.76	0.00	0.00	0.00
11,700.00	90.61	89.946	6,219.98	447.79	5,034.33	5,034.75	0.00	0.00	0.00
11,800.00	90.61	89.946	6,218.92	447.89	5,134.33	5,134.75	0.00	0.00	0.00
11,900.00	90.61	89.946	6,217.85	447.98	5,234.32	5,234.74	0.00	0.00	0.00
12,000.00	90.61	89.946	6,216.78	448.08	5,334.31	5,334.73	0.00	0.00	0.00
12,100.00	90.61	89.946	6,215.72	448.17	5,434.31	5,434.73	0.00	0.00	0.00
12,200.00	90.61	89.946	6,214.65	448.27	5,534.30	5,534.72	0.00	0.00	0.00
12,300.00	90.61	89.946	6,213.59	448.36	5,634.30	5,634.72	0.00	0.00	0.00
12,400.00	90.61	89.946	6,212.52	448.46	5,734.29	5,734.71	0.00	0.00	0.00
12,500.00	90.61	89.946	6,211.45	448.55	5,834.29	5,834.71	0.00	0.00	0.00
12,600.00	90.61	89.946	6,210.39	448.65	5,934.28	5,934.70	0.00	0.00	0.00
12,700.00	90.61	89.946	6,209.32	448.74	6,034.27	6,034.69	0.00	0.00	0.00
12,800.00	90.61	89.946	6,208.25	448.84	6,134.27	6,134.69	0.00	0.00	0.00
12,900.00	90.61	89.946	6,207.19	448.93	6,234.26	6,234.68	0.00	0.00	0.00
13,000.00	90.61	89.946	6,206.12	449.03	6,334.26	6,334.68	0.00	0.00	0.00
13,100.00	90.61	89.946	6,205.05	449.12	6,434.25	6,434.67	0.00	0.00	0.00
13,200.00	90.61	89.946	6,203.99	449.22	6,534.25	6,534.67	0.00	0.00	0.00
13,300.00	90.61	89.946	6,202.92	449.31	6,634.24	6,634.66	0.00	0.00	0.00
13,400.00	90.61	89.946	6,201.86	449.41	6,734.23	6,734.65	0.00	0.00	0.00
13,500.00	90.61	89.946	6,200.79	449.50	6,834.23	6,834.65	0.00	0.00	0.00
13,600.00	90.61	89.946	6,199.72	449.60	6,934.22	6,934.64	0.00	0.00	0.00
13,700.00	90.61	89.946	6,198.66	449.69	7,034.22	7,034.64	0.00	0.00	0.00
13,800.00	90.61	89.946	6,197.59	449.79	7,134.21	7,134.63	0.00	0.00	0.00
13,900.00	90.61	89.946	6,196.52	449.88	7,234.21	7,234.63	0.00	0.00	0.00
14,000.00	90.61	89.946	6,195.46	449.98	7,334.20	7,334.62	0.00	0.00	0.00
14,100.00	90.61	89.946	6,194.39	450.07	7,434.19	7,434.61	0.00	0.00	0.00
14,200.00	90.61	89.946	6,193.32	450.17	7,534.19	7,534.61	0.00	0.00	0.00
14,300.00	90.61	89.946	6,192.26	450.26	7,634.18	7,634.60	0.00	0.00	0.00
14,400.00	90.61	89.946	6,191.19	450.36	7,734.18	7,734.60	0.00	0.00	0.00
14,500.00	90.61	89.946	6,190.12	450.45	7,834.17	7,834.59	0.00	0.00	0.00
14,600.00	90.61	89.946	6,189.06	450.55	7,934.17	7,934.59	0.00	0.00	0.00
14,700.00	90.61	89.946	6,187.99	450.64	8,034.16	8,034.58	0.00	0.00	0.00

<b>Database:</b>	Casper District	<b>Local Co-ordinate Reference:</b>	Well Anschutz Equus Farms 4-62-28-3240C
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Project:</b>	Weld County, CO NAD 83	<b>MD Reference:</b>	GL 4624' & KB 20' @ 4644.00ft
<b>Site:</b>	Anschutz Equus Farms 4-62-28_27 NWSW Pad	<b>North Reference:</b>	True
<b>Well:</b>	Anschutz Equus Farms 4-62-28-3240C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 2		

**Planned 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)
14,800.00	90.61	89.946	6,186.93	450.74	8,134.15	8,134.58	0.00	0.00	0.00
14,900.00	90.61	89.946	6,185.86	450.83	8,234.15	8,234.57	0.00	0.00	0.00
15,000.00	90.61	89.946	6,184.79	450.93	8,334.14	8,334.56	0.00	0.00	0.00
15,100.00	90.61	89.946	6,183.73	451.02	8,434.14	8,434.56	0.00	0.00	0.00
15,200.00	90.61	89.946	6,182.66	451.12	8,534.13	8,534.55	0.00	0.00	0.00
15,300.00	90.61	89.946	6,181.59	451.21	8,634.13	8,634.55	0.00	0.00	0.00
15,400.00	90.61	89.946	6,180.53	451.31	8,734.12	8,734.54	0.00	0.00	0.00
15,500.00	90.61	89.946	6,179.46	451.40	8,834.11	8,834.54	0.00	0.00	0.00
15,600.00	90.61	89.946	6,178.39	451.50	8,934.11	8,934.53	0.00	0.00	0.00
15,700.00	90.61	89.946	6,177.33	451.59	9,034.10	9,034.52	0.00	0.00	0.00
15,800.00	90.61	89.946	6,176.26	451.69	9,134.10	9,134.52	0.00	0.00	0.00
15,900.00	90.61	89.946	6,175.20	451.78	9,234.09	9,234.51	0.00	0.00	0.00
16,000.00	90.61	89.946	6,174.13	451.88	9,334.09	9,334.51	0.00	0.00	0.00
16,100.00	90.61	89.946	6,173.06	451.97	9,434.08	9,434.50	0.00	0.00	0.00
16,200.00	90.61	89.946	6,172.00	452.07	9,534.07	9,534.50	0.00	0.00	0.00
16,293.39	90.61	89.946	6,171.00	452.16	9,627.46	9,627.88	0.00	0.00	0.00
TD at 16293.39									

**Design Targets**

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
4-62-28-3240C PBHL	0.00	0.000	6,171.00	452.16	9,627.46	1,348,141.38	3,334,151.22	40° 16' 58.271 N	104° 18' 8.111 W
- plan hits target center									
- Point									
4-62-28-3240C LP	0.00	0.000	6,274.00	443.00	-24.83	1,348,005.60	3,324,499.89	40° 16' 58.199 N	104° 20' 12.660 W
- plan misses target center by 0.06ft at 6640.55ft MD (6273.94 TVD, 442.99 N, -24.83 E)									
- Point									

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
1,000.00	1,000.00	0.00	0.00	Start Build 2.00
2,045.53	2,022.47	124.02	-142.19	Start 300.42 hold at 2045.53 MD
2,345.95	2,303.10	194.49	-223.00	Start Drop -1.00
4,437.00	4,348.05	442.53	-507.39	Start 1448.45 hold at 4437.00 MD
5,885.45	5,796.50	442.53	-507.39	Start DLS 12.00 TFO 89.95
6,640.55	6,273.94	442.99	-24.83	Start 9652.85 hold at 6640.54 MD
16,293.39	6,171.00	452.16	9,627.46	TD at 16293.39