



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

Project: Weld County, CO NAD 83
Site: Anschutz Equus Farms 4-62-9_10 North Pad
Well: Anschutz Equus Farms 4-62-9-0108B2B
Wellbore: OH
Design: Plan 1



Azinuths to True North
Magnetic North: 8.27°



Magnetic Field
Strength: 52610.5nT
Dip Angle: 66.98°
Date: 11/6/2015
Model: BGGM2015

Plan: Plan 1 (Anschutz Equus Farms 4-62-9-0108B2B/OH)

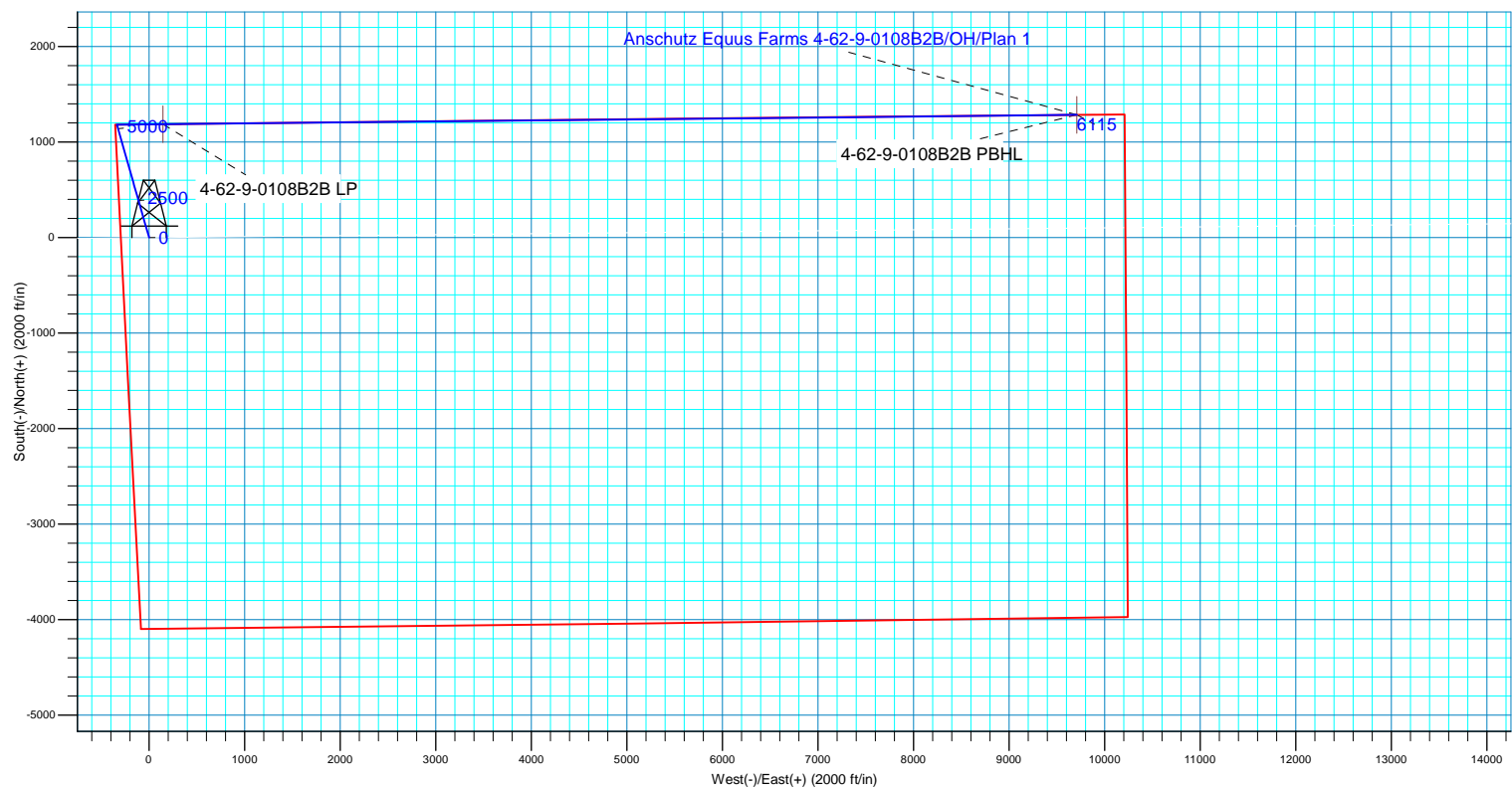
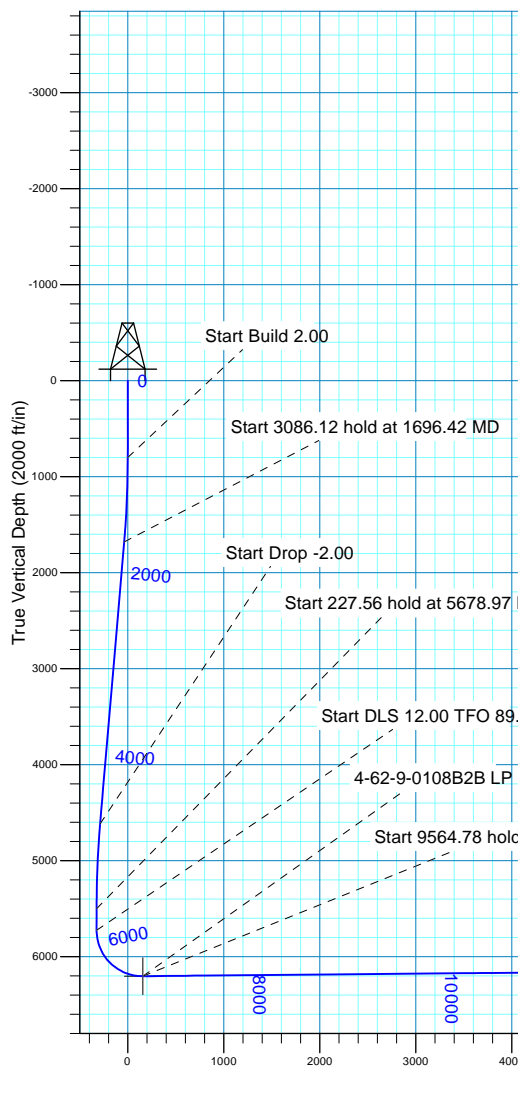
Created By: Seth Burstad Date: 11-06-2015

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00
1696.42	17.93	344.10	1681.87	133.79	-38.10	2.00	344.10	-36.75
4782.55	17.93	344.10	4618.13	1047.46	-298.31	0.00	0.00	-287.69
5678.97	0.00	0.00	5500.00	1181.25	-336.41	2.00	180.00	-324.44
5906.53	0.00	0.00	5727.56	1181.25	-336.41	0.00	0.00	-324.44
6661.02	90.54	89.42	6205.00	1186.14	145.52	12.00	89.42	157.52
16225.81	90.54	89.42	6115.00	1283.13	9709.39	0.00	0.00	9721.88

WELL DETAILS: Anschutz Equus Farms 4-62-9-0108B2B

		GL 4520' & KB 16' @ 4536.00ft		4520.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1365437.80	3323761.54	40° 19' 50.549 N	104° 20' 19.241 W





Bill Barrett Corp.

Weld County, CO NAD 83

Anschutz Equus Farms 4-62-9_10 North Pad

Anschutz Equus Farms 4-62-9-0108B2B

OH

Plan: Plan 1

Standard Planning Report

06 November, 2015



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-0108B2B
Company:	Bill Barrett Corp.	TVD Reference:	GL 4520' & KB 16' @ 4536.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4520' & KB 16' @ 4536.00ft
Site:	Anschutz Equus Farms 4-62-9_10 North Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-0108B2B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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 4-62-9_10 North Pad, Site Center: 4-62-9-0108B2B			
Site Position:		Northing:	1,365,437.80 usft	Latitude:	40° 19' 50.549 N
From:	Lat/Long	Easting:	3,323,761.54 usft	Longitude:	104° 20' 19.241 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.75 °

Well	Anschutz Equus Farms 4-62-9-0108B2B, 1186' FNL 295' FWL Sec 9 T4N R62W					
Well Position	+N/-S	-0.01 ft	Northing:	1,365,437.80 usft	Latitude:	40° 19' 50.549 N
	+E/-W	0.00 ft	Easting:	3,323,761.54 usft	Longitude:	104° 20' 19.241 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,520.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	11/6/2015	8.27	66.98	52,610

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	89.42

Plan Sections										
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,696.42	17.93	344.10	1,681.87	133.79	-38.10	2.00	2.00	0.00	344.10	
4,782.55	17.93	344.10	4,618.13	1,047.46	-298.31	0.00	0.00	0.00	0.00	
5,678.97	0.00	0.00	5,500.00	1,181.25	-336.41	2.00	-2.00	0.00	180.00	
5,906.53	0.00	0.00	5,727.56	1,181.25	-336.41	0.00	0.00	0.00	0.00	
6,661.02	90.54	89.42	6,205.00	1,186.14	145.52	12.00	12.00	11.85	89.42	
16,225.81	90.54	89.42	6,115.00	1,283.13	9,709.39	0.00	0.00	0.00	0.00	4-62-9-0108B2B PBH

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-0108B2B
Company:	Bill Barrett Corp.	TVD Reference:	GL 4520' & KB 16' @ 4536.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4520' & KB 16' @ 4536.00ft
Site:	Anschutz Equus Farms 4-62-9_10 North Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-0108B2B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
900.00	2.00	344.10	899.98	1.68	-0.48	-0.46	2.00	2.00	0.00
1,000.00	4.00	344.10	999.84	6.71	-1.91	-1.84	2.00	2.00	0.00
1,100.00	6.00	344.10	1,099.45	15.09	-4.30	-4.15	2.00	2.00	0.00
1,200.00	8.00	344.10	1,198.70	26.81	-7.64	-7.36	2.00	2.00	0.00
1,300.00	10.00	344.10	1,297.47	41.86	-11.92	-11.50	2.00	2.00	0.00
1,400.00	12.00	344.10	1,395.62	60.21	-17.15	-16.54	2.00	2.00	0.00
1,500.00	14.00	344.10	1,493.06	81.84	-23.31	-22.48	2.00	2.00	0.00
1,600.00	16.00	344.10	1,589.64	106.73	-30.40	-29.31	2.00	2.00	0.00
1,696.42	17.93	344.10	1,681.87	133.79	-38.10	-36.75	2.00	2.00	0.00
Start 3086.12 hold at 1696.42 MD									
1,700.00	17.93	344.10	1,685.27	134.85	-38.40	-37.04	0.00	0.00	0.00
1,800.00	17.93	344.10	1,780.41	164.45	-46.84	-45.17	0.00	0.00	0.00
1,900.00	17.93	344.10	1,875.56	194.06	-55.27	-53.30	0.00	0.00	0.00
2,000.00	17.93	344.10	1,970.70	223.67	-63.70	-61.43	0.00	0.00	0.00
2,100.00	17.93	344.10	2,065.85	253.27	-72.13	-69.56	0.00	0.00	0.00
2,200.00	17.93	344.10	2,160.99	282.88	-80.56	-77.69	0.00	0.00	0.00
2,300.00	17.93	344.10	2,256.13	312.48	-88.99	-85.82	0.00	0.00	0.00
2,400.00	17.93	344.10	2,351.28	342.09	-97.42	-93.96	0.00	0.00	0.00
2,500.00	17.93	344.10	2,446.42	371.69	-105.86	-102.09	0.00	0.00	0.00
2,600.00	17.93	344.10	2,541.57	401.30	-114.29	-110.22	0.00	0.00	0.00
2,700.00	17.93	344.10	2,636.71	430.91	-122.72	-118.35	0.00	0.00	0.00
2,800.00	17.93	344.10	2,731.85	460.51	-131.15	-126.48	0.00	0.00	0.00
2,900.00	17.93	344.10	2,827.00	490.12	-139.58	-134.61	0.00	0.00	0.00
3,000.00	17.93	344.10	2,922.14	519.72	-148.01	-142.74	0.00	0.00	0.00
3,100.00	17.93	344.10	3,017.29	549.33	-156.44	-150.88	0.00	0.00	0.00
3,200.00	17.93	344.10	3,112.43	578.93	-164.88	-159.01	0.00	0.00	0.00
3,300.00	17.93	344.10	3,207.58	608.54	-173.31	-167.14	0.00	0.00	0.00
3,400.00	17.93	344.10	3,302.72	638.15	-181.74	-175.27	0.00	0.00	0.00
3,500.00	17.93	344.10	3,397.86	667.75	-190.17	-183.40	0.00	0.00	0.00
3,600.00	17.93	344.10	3,493.01	697.36	-198.60	-191.53	0.00	0.00	0.00
3,700.00	17.93	344.10	3,588.15	726.96	-207.03	-199.66	0.00	0.00	0.00
3,800.00	17.93	344.10	3,683.30	756.57	-215.46	-207.79	0.00	0.00	0.00
3,900.00	17.93	344.10	3,778.44	786.18	-223.90	-215.93	0.00	0.00	0.00
4,000.00	17.93	344.10	3,873.58	815.78	-232.33	-224.06	0.00	0.00	0.00
4,100.00	17.93	344.10	3,968.73	845.39	-240.76	-232.19	0.00	0.00	0.00
4,200.00	17.93	344.10	4,063.87	874.99	-249.19	-240.32	0.00	0.00	0.00
4,300.00	17.93	344.10	4,159.02	904.60	-257.62	-248.45	0.00	0.00	0.00
4,400.00	17.93	344.10	4,254.16	934.20	-266.05	-256.58	0.00	0.00	0.00
4,500.00	17.93	344.10	4,349.31	963.81	-274.48	-264.71	0.00	0.00	0.00
4,600.00	17.93	344.10	4,444.45	993.42	-282.92	-272.85	0.00	0.00	0.00
4,696.22	17.93	344.10	4,536.00	1,021.90	-291.03	-280.67	0.00	0.00	0.00
BASE OF FOX HILLS									
4,700.00	17.93	344.10	4,539.59	1,023.02	-291.35	-280.98	0.00	0.00	0.00

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Company:	Bill Barrett Corp.	TVD Reference:	GL 4520' & KB 16' @ 4536.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4520' & KB 16' @ 4536.00ft
Site:	Anschutz Equus Farms 4-62-9_10 North Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-0108B2B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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)
4,782.55	17.93	344.10	4,618.13	1,047.46	-298.31	-287.69	0.00	0.00	0.00
Start Drop -2.00									
4,800.00	17.58	344.10	4,634.75	1,052.58	-299.77	-289.10	2.00	-2.00	0.00
4,871.32	16.15	344.10	4,703.00	1,072.48	-305.43	-294.56	2.00	-2.00	0.00
SHANNON									
4,900.00	15.58	344.10	4,730.59	1,080.02	-307.58	-296.63	2.00	-2.00	0.00
5,000.00	13.58	344.10	4,827.37	1,104.23	-314.47	-303.28	2.00	-2.00	0.00
5,100.00	11.58	344.10	4,924.96	1,125.17	-320.44	-309.03	2.00	-2.00	0.00
5,200.00	9.58	344.10	5,023.26	1,142.83	-325.47	-313.88	2.00	-2.00	0.00
5,300.00	7.58	344.10	5,122.13	1,157.18	-329.55	-317.82	2.00	-2.00	0.00
5,400.00	5.58	344.10	5,221.47	1,168.20	-332.69	-320.85	2.00	-2.00	0.00
5,500.00	3.58	344.10	5,321.14	1,175.88	-334.88	-322.96	2.00	-2.00	0.00
5,600.00	1.58	344.10	5,421.04	1,180.20	-336.11	-324.15	2.00	-2.00	0.00
5,678.97	0.00	0.00	5,500.00	1,181.25	-336.41	-324.44	2.00	-2.00	0.00
Start 227.56 hold at 5678.97 MD									
5,700.00	0.00	0.00	5,521.03	1,181.25	-336.41	-324.44	0.00	0.00	0.00
5,800.00	0.00	0.00	5,621.03	1,181.25	-336.41	-324.44	0.00	0.00	0.00
5,900.00	0.00	0.00	5,721.03	1,181.25	-336.41	-324.44	0.00	0.00	0.00
5,906.53	0.00	0.00	5,727.56	1,181.25	-336.41	-324.44	0.00	0.00	0.00
Start DLS 12.00 TFO 89.42									
6,000.00	11.22	89.42	5,820.43	1,181.34	-327.29	-315.32	12.00	12.00	0.00
6,100.00	23.22	89.42	5,915.78	1,181.64	-297.75	-285.77	12.00	12.00	0.00
6,164.31	30.93	89.42	5,973.00	1,181.94	-268.50	-256.52	12.00	12.00	0.00
SHARON SPRINGS									
6,200.00	35.22	89.42	6,002.90	1,182.14	-249.03	-237.05	12.00	12.00	0.00
6,297.09	46.87	89.42	6,076.00	1,182.78	-185.39	-173.41	12.00	12.00	0.00
NIOBRARA									
6,300.00	47.22	89.42	6,077.98	1,182.80	-183.26	-171.28	12.00	12.00	0.00
6,358.52	54.24	89.42	6,115.00	1,183.26	-137.99	-126.01	12.00	12.00	0.00
TD (HORIZONTAL)									
6,367.18	55.28	89.42	6,120.00	1,183.33	-130.92	-118.93	12.00	12.00	0.00
A CHALK									
6,390.86	58.12	89.42	6,133.00	1,183.53	-111.13	-99.14	12.00	12.00	0.00
A MARL									
6,400.00	59.22	89.42	6,137.75	1,183.61	-103.32	-91.34	12.00	12.00	0.00
6,500.00	71.22	89.42	6,179.60	1,184.53	-12.70	-0.71	12.00	12.00	0.00
6,507.65	72.13	89.42	6,182.00	1,184.61	-5.44	6.55	12.00	12.00	0.00
TOP "B" TARGET									
6,600.00	83.22	89.42	6,201.68	1,185.52	84.63	96.63	12.00	12.00	0.00
6,661.02	90.54	89.42	6,205.00	1,186.14	145.52	157.52	12.00	12.00	0.00
Start 9564.78 hold at 6661.02 MD									
6,662.20	90.60	89.42	6,205.00	1,186.15	146.70	158.70	4.95	4.95	0.00
LANDING POINT									
6,700.00	90.54	89.42	6,204.64	1,186.53	184.49	196.50	0.15	-0.15	0.00
6,800.00	90.54	89.42	6,203.70	1,187.55	284.48	296.49	0.00	0.00	0.00
6,900.00	90.54	89.42	6,202.76	1,188.56	384.48	396.49	0.00	0.00	0.00
7,000.00	90.54	89.42	6,201.81	1,189.58	484.47	496.48	0.00	0.00	0.00
7,100.00	90.54	89.42	6,200.87	1,190.59	584.46	596.48	0.00	0.00	0.00
7,200.00	90.54	89.42	6,199.93	1,191.60	684.45	696.47	0.00	0.00	0.00
7,300.00	90.54	89.42	6,198.99	1,192.62	784.44	796.47	0.00	0.00	0.00
7,400.00	90.54	89.42	6,198.05	1,193.63	884.43	896.46	0.00	0.00	0.00
7,500.00	90.54	89.42	6,197.11	1,194.65	984.42	996.46	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-0108B2B
Company:	Bill Barrett Corp.	TVD Reference:	GL 4520' & KB 16' @ 4536.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4520' & KB 16' @ 4536.00ft
Site:	Anschutz Equus Farms 4-62-9_10 North Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-0108B2B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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)
7,600.00	90.54	89.42	6,196.17	1,195.66	1,084.41	1,096.46	0.00	0.00	0.00
7,700.00	90.54	89.42	6,195.23	1,196.67	1,184.40	1,196.45	0.00	0.00	0.00
7,800.00	90.54	89.42	6,194.29	1,197.69	1,284.39	1,296.45	0.00	0.00	0.00
7,900.00	90.54	89.42	6,193.35	1,198.70	1,384.38	1,396.44	0.00	0.00	0.00
8,000.00	90.54	89.42	6,192.40	1,199.72	1,484.37	1,496.44	0.00	0.00	0.00
8,100.00	90.54	89.42	6,191.46	1,200.73	1,584.36	1,596.43	0.00	0.00	0.00
8,200.00	90.54	89.42	6,190.52	1,201.74	1,684.35	1,696.43	0.00	0.00	0.00
8,300.00	90.54	89.42	6,189.58	1,202.76	1,784.34	1,796.43	0.00	0.00	0.00
8,400.00	90.54	89.42	6,188.64	1,203.77	1,884.33	1,896.42	0.00	0.00	0.00
8,500.00	90.54	89.42	6,187.70	1,204.79	1,984.32	1,996.42	0.00	0.00	0.00
8,600.00	90.54	89.42	6,186.76	1,205.80	2,084.31	2,096.41	0.00	0.00	0.00
8,700.00	90.54	89.42	6,185.82	1,206.81	2,184.30	2,196.41	0.00	0.00	0.00
8,800.00	90.54	89.42	6,184.88	1,207.83	2,284.29	2,296.40	0.00	0.00	0.00
8,900.00	90.54	89.42	6,183.94	1,208.84	2,384.28	2,396.40	0.00	0.00	0.00
9,000.00	90.54	89.42	6,182.99	1,209.86	2,484.27	2,496.39	0.00	0.00	0.00
9,100.00	90.54	89.42	6,182.05	1,210.87	2,584.26	2,596.39	0.00	0.00	0.00
9,200.00	90.54	89.42	6,181.11	1,211.88	2,684.26	2,696.39	0.00	0.00	0.00
9,300.00	90.54	89.42	6,180.17	1,212.90	2,784.25	2,796.38	0.00	0.00	0.00
9,400.00	90.54	89.42	6,179.23	1,213.91	2,884.24	2,896.38	0.00	0.00	0.00
9,500.00	90.54	89.42	6,178.29	1,214.93	2,984.23	2,996.37	0.00	0.00	0.00
9,600.00	90.54	89.42	6,177.35	1,215.94	3,084.22	3,096.37	0.00	0.00	0.00
9,700.00	90.54	89.42	6,176.41	1,216.96	3,184.21	3,196.36	0.00	0.00	0.00
9,800.00	90.54	89.42	6,175.47	1,217.97	3,284.20	3,296.36	0.00	0.00	0.00
9,900.00	90.54	89.42	6,174.53	1,218.98	3,384.19	3,396.35	0.00	0.00	0.00
10,000.00	90.54	89.42	6,173.58	1,220.00	3,484.18	3,496.35	0.00	0.00	0.00
10,100.00	90.54	89.42	6,172.64	1,221.01	3,584.17	3,596.35	0.00	0.00	0.00
10,200.00	90.54	89.42	6,171.70	1,222.03	3,684.16	3,696.34	0.00	0.00	0.00
10,300.00	90.54	89.42	6,170.76	1,223.04	3,784.15	3,796.34	0.00	0.00	0.00
10,400.00	90.54	89.42	6,169.82	1,224.05	3,884.14	3,896.33	0.00	0.00	0.00
10,500.00	90.54	89.42	6,168.88	1,225.07	3,984.13	3,996.33	0.00	0.00	0.00
10,600.00	90.54	89.42	6,167.94	1,226.08	4,084.12	4,096.32	0.00	0.00	0.00
10,700.00	90.54	89.42	6,167.00	1,227.10	4,184.11	4,196.32	0.00	0.00	0.00
10,800.00	90.54	89.42	6,166.06	1,228.11	4,284.10	4,296.31	0.00	0.00	0.00
10,900.00	90.54	89.42	6,165.12	1,229.12	4,384.09	4,396.31	0.00	0.00	0.00
11,000.00	90.54	89.42	6,164.17	1,230.14	4,484.08	4,496.31	0.00	0.00	0.00
11,100.00	90.54	89.42	6,163.23	1,231.15	4,584.07	4,596.30	0.00	0.00	0.00
11,200.00	90.54	89.42	6,162.29	1,232.17	4,684.06	4,696.30	0.00	0.00	0.00
11,300.00	90.54	89.42	6,161.35	1,233.18	4,784.05	4,796.29	0.00	0.00	0.00
11,400.00	90.54	89.42	6,160.41	1,234.19	4,884.04	4,896.29	0.00	0.00	0.00
11,500.00	90.54	89.42	6,159.47	1,235.21	4,984.04	4,996.28	0.00	0.00	0.00
11,600.00	90.54	89.42	6,158.53	1,236.22	5,084.03	5,096.28	0.00	0.00	0.00
11,700.00	90.54	89.42	6,157.59	1,237.24	5,184.02	5,196.27	0.00	0.00	0.00
11,800.00	90.54	89.42	6,156.65	1,238.25	5,284.01	5,296.27	0.00	0.00	0.00
11,900.00	90.54	89.42	6,155.71	1,239.26	5,384.00	5,396.27	0.00	0.00	0.00
12,000.00	90.54	89.42	6,154.76	1,240.28	5,483.99	5,496.26	0.00	0.00	0.00
12,100.00	90.54	89.42	6,153.82	1,241.29	5,583.98	5,596.26	0.00	0.00	0.00
12,200.00	90.54	89.42	6,152.88	1,242.31	5,683.97	5,696.25	0.00	0.00	0.00
12,300.00	90.54	89.42	6,151.94	1,243.32	5,783.96	5,796.25	0.00	0.00	0.00
12,400.00	90.54	89.42	6,151.00	1,244.34	5,883.95	5,896.24	0.00	0.00	0.00
12,500.00	90.54	89.42	6,150.06	1,245.35	5,983.94	5,996.24	0.00	0.00	0.00
12,600.00	90.54	89.42	6,149.12	1,246.36	6,083.93	6,096.23	0.00	0.00	0.00
12,700.00	90.54	89.42	6,148.18	1,247.38	6,183.92	6,196.23	0.00	0.00	0.00
12,800.00	90.54	89.42	6,147.24	1,248.39	6,283.91	6,296.23	0.00	0.00	0.00
12,900.00	90.54	89.42	6,146.30	1,249.41	6,383.90	6,396.22	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-0108B2B
Company:	Bill Barrett Corp.	TVD Reference:	GL 4520' & KB 16' @ 4536.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4520' & KB 16' @ 4536.00ft
Site:	Anschutz Equus Farms 4-62-9_10 North Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-0108B2B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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)
13,000.00	90.54	89.42	6,145.35	1,250.42	6,483.89	6,496.22	0.00	0.00	0.00
13,100.00	90.54	89.42	6,144.41	1,251.43	6,583.88	6,596.21	0.00	0.00	0.00
13,200.00	90.54	89.42	6,143.47	1,252.45	6,683.87	6,696.21	0.00	0.00	0.00
13,300.00	90.54	89.42	6,142.53	1,253.46	6,783.86	6,796.20	0.00	0.00	0.00
13,400.00	90.54	89.42	6,141.59	1,254.48	6,883.85	6,896.20	0.00	0.00	0.00
13,500.00	90.54	89.42	6,140.65	1,255.49	6,983.84	6,996.20	0.00	0.00	0.00
13,600.00	90.54	89.42	6,139.71	1,256.50	7,083.83	7,096.19	0.00	0.00	0.00
13,700.00	90.54	89.42	6,138.77	1,257.52	7,183.82	7,196.19	0.00	0.00	0.00
13,800.00	90.54	89.42	6,137.83	1,258.53	7,283.82	7,296.18	0.00	0.00	0.00
13,900.00	90.54	89.42	6,136.89	1,259.55	7,383.81	7,396.18	0.00	0.00	0.00
14,000.00	90.54	89.42	6,135.94	1,260.56	7,483.80	7,496.17	0.00	0.00	0.00
14,100.00	90.54	89.42	6,135.00	1,261.57	7,583.79	7,596.17	0.00	0.00	0.00
14,200.00	90.54	89.42	6,134.06	1,262.59	7,683.78	7,696.16	0.00	0.00	0.00
14,300.00	90.54	89.42	6,133.12	1,263.60	7,783.77	7,796.16	0.00	0.00	0.00
14,400.00	90.54	89.42	6,132.18	1,264.62	7,883.76	7,896.16	0.00	0.00	0.00
14,500.00	90.54	89.42	6,131.24	1,265.63	7,983.75	7,996.15	0.00	0.00	0.00
14,600.00	90.54	89.42	6,130.30	1,266.64	8,083.74	8,096.15	0.00	0.00	0.00
14,700.00	90.54	89.42	6,129.36	1,267.66	8,183.73	8,196.14	0.00	0.00	0.00
14,800.00	90.54	89.42	6,128.42	1,268.67	8,283.72	8,296.14	0.00	0.00	0.00
14,900.00	90.54	89.42	6,127.48	1,269.69	8,383.71	8,396.13	0.00	0.00	0.00
15,000.00	90.54	89.42	6,126.53	1,270.70	8,483.70	8,496.13	0.00	0.00	0.00
15,100.00	90.54	89.42	6,125.59	1,271.72	8,583.69	8,596.12	0.00	0.00	0.00
15,200.00	90.54	89.42	6,124.65	1,272.73	8,683.68	8,696.12	0.00	0.00	0.00
15,300.00	90.54	89.42	6,123.71	1,273.74	8,783.67	8,796.12	0.00	0.00	0.00
15,400.00	90.54	89.42	6,122.77	1,274.76	8,883.66	8,896.11	0.00	0.00	0.00
15,500.00	90.54	89.42	6,121.83	1,275.77	8,983.65	8,996.11	0.00	0.00	0.00
15,600.00	90.54	89.42	6,120.89	1,276.79	9,083.64	9,096.10	0.00	0.00	0.00
15,700.00	90.54	89.42	6,119.95	1,277.80	9,183.63	9,196.10	0.00	0.00	0.00
15,800.00	90.54	89.42	6,119.01	1,278.81	9,283.62	9,296.09	0.00	0.00	0.00
15,900.00	90.54	89.42	6,118.07	1,279.83	9,383.61	9,396.09	0.00	0.00	0.00
16,000.00	90.54	89.42	6,117.12	1,280.84	9,483.60	9,496.08	0.00	0.00	0.00
16,100.00	90.54	89.42	6,116.18	1,281.86	9,583.60	9,596.08	0.00	0.00	0.00
16,200.00	90.54	89.42	6,115.24	1,282.87	9,683.59	9,696.08	0.00	0.00	0.00
16,225.81	90.54	89.42	6,115.00	1,283.13	9,709.39	9,721.88	0.00	0.00	0.00
TD at 16225.81									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
4-62-9-0108B2B PBHL - hit/miss target - Shape - Point	0.00	0.00	6,115.00	1,283.13	9,709.39	1,366,847.97	3,333,453.27	40° 20' 3.210 N	104° 18' 13.860 W
4-62-9-0108B2B LP - plan misses target center by 0.01ft at 6661.03ft MD (6205.00 TVD, 1186.14 N, 145.52 E) - Point	0.00	0.00	6,205.00	1,186.14	145.52	1,366,625.74	3,323,891.52	40° 20' 2.270 N	104° 20' 17.362 W

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-0108B2B
Company:	Bill Barrett Corp.	TVD Reference:	GL 4520' & KB 16' @ 4536.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4520' & KB 16' @ 4536.00ft
Site:	Anschutz Equus Farms 4-62-9_10 North Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-0108B2B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,696.22	4,536.00	BASE OF FOX HILLS		0.00	
4,871.32	4,703.00	SHANNON		0.00	
6,164.31	5,973.00	SHARON SPRINGS		0.00	
6,297.09	6,076.00	NIOBRARA		0.00	
6,358.52	6,115.00	TD (HORIZONTAL)		0.00	
6,367.18	6,120.00	A CHALK		0.00	
6,390.86	6,133.00	A MARL		0.00	
6,507.65	6,182.00	TOP "B" TARGET		0.00	
6,662.20	6,205.00	LANDING POINT		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
800.00	800.00	0.00	0.00	Start Build 2.00
1,696.42	1,681.87	133.79	-38.10	Start 3086.12 hold at 1696.42 MD
4,782.55	4,618.13	1,047.46	-298.31	Start Drop -2.00
5,678.97	5,500.00	1,181.25	-336.41	Start 227.56 hold at 5678.97 MD
5,906.53	5,727.56	1,181.25	-336.41	Start DLS 12.00 TFO 89.42
6,661.02	6,205.00	1,186.14	145.52	Start 9564.78 hold at 6661.02 MD
16,225.81	6,115.00	1,283.13	9,709.39	TD at 16225.81