

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 4-62-28 NWNW Pad
 Well: Anschutz Equus Farms 4-62-28-1609B2
 Wellbore: OH
 Design: Plan 1



Azimuths to True North
 Magnetic North: 8.28°

Magnetic Field
 Strength: 52599.4snT
 Dip Angle: 66.95°
 Date: 10/5/2015
 Model: BGGM2015

Plan: Plan 1 (Anschutz Equus Farms 4-62-28-1609B2/OH)

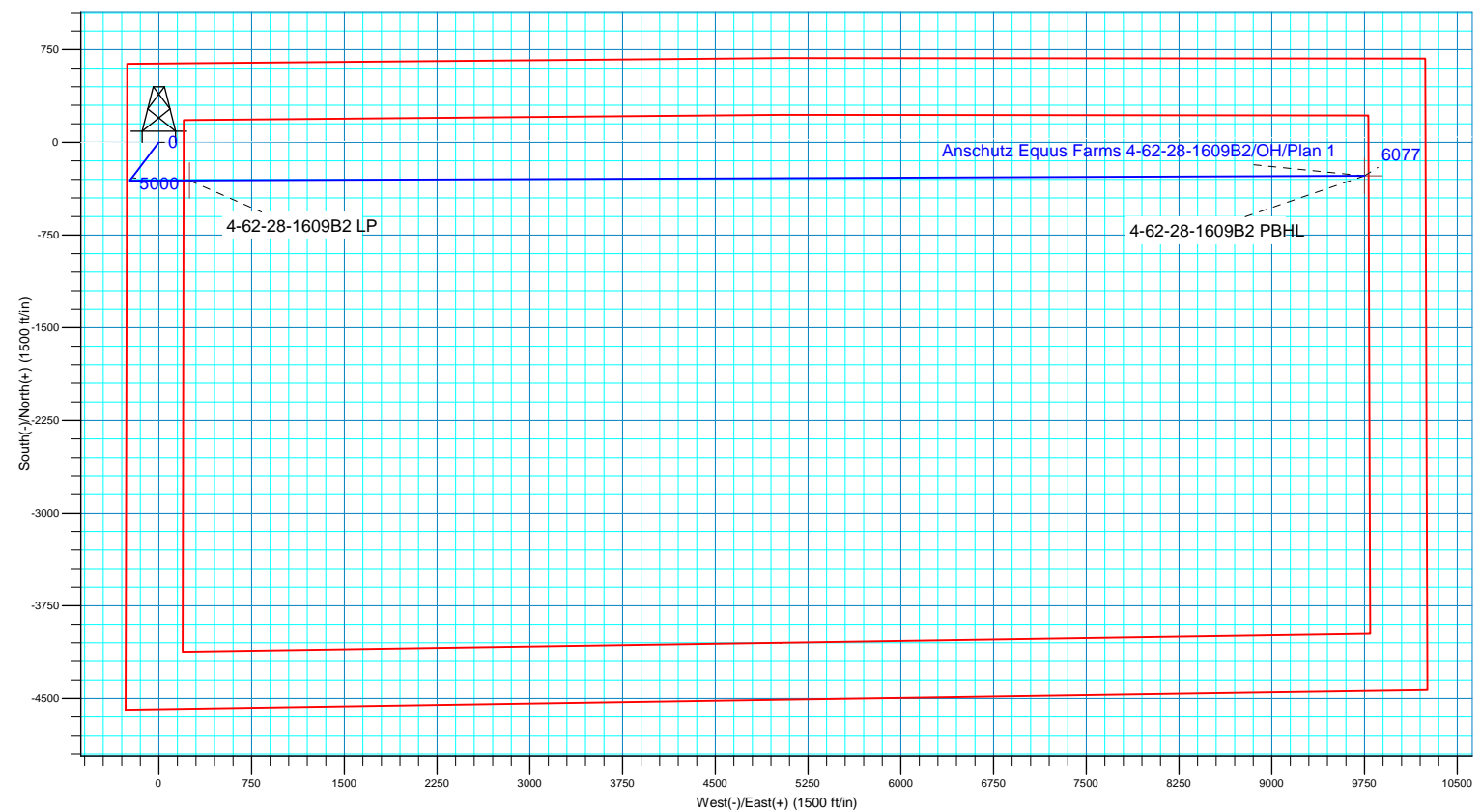
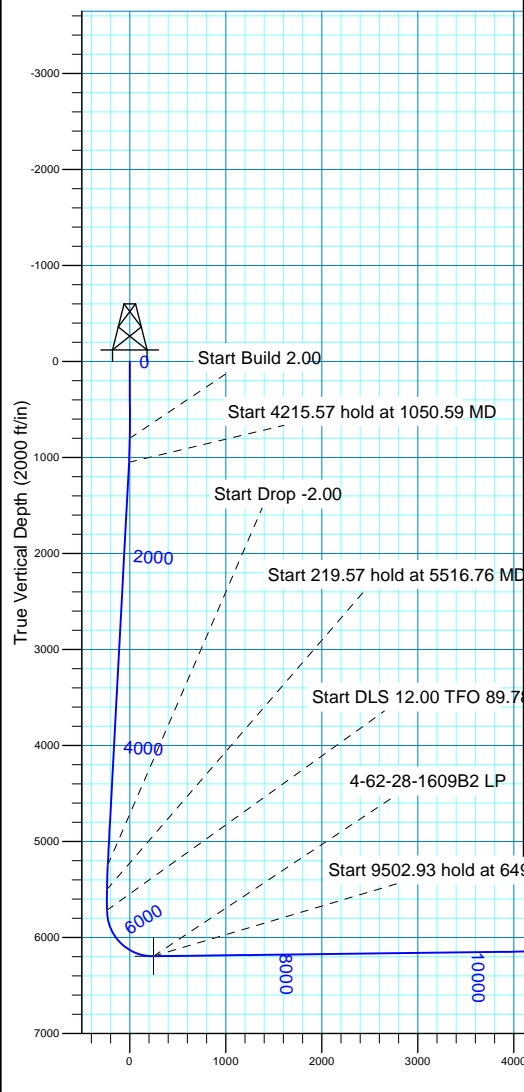
Created By: Seth Burstad Date: 10-5-2015

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
1050.59	5.01	217.02	1050.27	-8.75	-6.59	2.00	217.02	-6.63
5266.16	5.01	217.02	5249.73	-302.79	-228.33	0.00	0.00	-229.49
5516.76	0.00	0.00	5500.00	-311.54	-234.92	2.00	180.00	-236.11
5736.33	0.00	0.00	5719.57	-311.54	-234.92	0.00	0.00	-236.11
6492.36	90.72	89.78	6197.00	-309.64	248.57	12.00	89.78	247.38
15995.29	90.72	89.78	6077.00	-272.38	9750.67	0.00	0.00	9749.55

WELL DETAILS: Anschutz Equus Farms 4-62-28-1609B2

+N/-S	+E/-W	Northing	Ground Level: Easting	4572.00 Latitude	Longitude
0.00	0.00	1349972.09	3324269.59	40° 17' 17.660 N	104° 20' 15.299 W





Bill Barrett Corp.

Weld County, CO NAD 83

Anschuts Equus Farms 4-62-28 NWNW Pad

Anschutz Equus Farms 4-62-28-1609B2

OH

Plan: Plan 1

Standard Planning Report

05 October, 2015



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4572' & KB 16' @ 4588.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4572' & KB 16' @ 4588.00ft
Site:	Anschutz Equus Farms 4-62-28 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-1609B2	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 4-62-28 NWNW Pad			
Site Position:		Northing:	1,350,001.24 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 4-62-28-1609B2, 639' FNL 250' FWL Sec 28 T4N R62W					
Well Position	+N/-S	-29.16 ft	Northing:	1,349,972.08 usft	Latitude:	40° 17' 17.660 N
	+E/-W	0.00 ft	Easting:	3,324,269.60 usft	Longitude:	104° 20' 15.299 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,572.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	10/5/2015	8.28	66.95	52,599

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	89.78

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	
1,050.59	5.01	217.02	1,050.27	-8.75	-6.59	2.00	2.00	0.00	217.02	
5,266.16	5.01	217.02	5,249.73	-302.79	-228.33	0.00	0.00	0.00	0.00	
5,516.76	0.00	0.00	5,500.00	-311.54	-234.92	2.00	-2.00	0.00	180.00	
5,736.33	0.00	0.00	5,719.57	-311.54	-234.92	0.00	0.00	0.00	0.00	
6,492.36	90.72	89.78	6,197.00	-309.64	248.57	12.00	12.00	11.87	89.78	
15,995.29	90.72	89.78	6,077.00	-272.38	9,750.67	0.00	0.00	0.00	0.00	4-62-28-1609B2 PBH

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4572' & KB 16' @ 4588.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4572' & KB 16' @ 4588.00ft
Site:	Anschutz Equus Farms 4-62-28 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-1609B2	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	217.02	899.98	-1.39	-1.05	-1.06	2.00	2.00	0.00
1,000.00	4.00	217.02	999.84	-5.57	-4.20	-4.22	2.00	2.00	0.00
1,050.59	5.01	217.02	1,050.27	-8.75	-6.59	-6.63	2.00	2.00	0.00
Start 4215.57 hold at 1050.59 MD									
1,100.00	5.01	217.02	1,099.49	-12.19	-9.19	-9.24	0.00	0.00	0.00
1,200.00	5.01	217.02	1,199.11	-19.17	-14.45	-14.53	0.00	0.00	0.00
1,300.00	5.01	217.02	1,298.73	-26.14	-19.71	-19.81	0.00	0.00	0.00
1,400.00	5.01	217.02	1,398.34	-33.12	-24.97	-25.10	0.00	0.00	0.00
1,500.00	5.01	217.02	1,497.96	-40.09	-30.23	-30.39	0.00	0.00	0.00
1,600.00	5.01	217.02	1,597.58	-47.07	-35.49	-35.67	0.00	0.00	0.00
1,700.00	5.01	217.02	1,697.20	-54.04	-40.75	-40.96	0.00	0.00	0.00
1,800.00	5.01	217.02	1,796.82	-61.02	-46.01	-46.25	0.00	0.00	0.00
1,900.00	5.01	217.02	1,896.43	-67.99	-51.27	-51.53	0.00	0.00	0.00
2,000.00	5.01	217.02	1,996.05	-74.97	-56.53	-56.82	0.00	0.00	0.00
2,100.00	5.01	217.02	2,095.67	-81.94	-61.79	-62.11	0.00	0.00	0.00
2,200.00	5.01	217.02	2,195.29	-88.92	-67.05	-67.39	0.00	0.00	0.00
2,300.00	5.01	217.02	2,294.90	-95.90	-72.31	-72.68	0.00	0.00	0.00
2,400.00	5.01	217.02	2,394.52	-102.87	-77.57	-77.97	0.00	0.00	0.00
2,500.00	5.01	217.02	2,494.14	-109.85	-82.83	-83.25	0.00	0.00	0.00
2,600.00	5.01	217.02	2,593.76	-116.82	-88.09	-88.54	0.00	0.00	0.00
2,700.00	5.01	217.02	2,693.37	-123.80	-93.35	-93.82	0.00	0.00	0.00
2,800.00	5.01	217.02	2,792.99	-130.77	-98.61	-99.11	0.00	0.00	0.00
2,900.00	5.01	217.02	2,892.61	-137.75	-103.87	-104.40	0.00	0.00	0.00
3,000.00	5.01	217.02	2,992.23	-144.72	-109.13	-109.68	0.00	0.00	0.00
3,100.00	5.01	217.02	3,091.85	-151.70	-114.39	-114.97	0.00	0.00	0.00
3,200.00	5.01	217.02	3,191.46	-158.67	-119.65	-120.26	0.00	0.00	0.00
3,300.00	5.01	217.02	3,291.08	-165.65	-124.91	-125.54	0.00	0.00	0.00
3,400.00	5.01	217.02	3,390.70	-172.62	-130.17	-130.83	0.00	0.00	0.00
3,500.00	5.01	217.02	3,490.32	-179.60	-135.43	-136.12	0.00	0.00	0.00
3,600.00	5.01	217.02	3,589.93	-186.57	-140.69	-141.40	0.00	0.00	0.00
3,700.00	5.01	217.02	3,689.55	-193.55	-145.95	-146.69	0.00	0.00	0.00
3,800.00	5.01	217.02	3,789.17	-200.53	-151.21	-151.98	0.00	0.00	0.00
3,900.00	5.01	217.02	3,888.79	-207.50	-156.47	-157.26	0.00	0.00	0.00
4,000.00	5.01	217.02	3,988.40	-214.48	-161.73	-162.55	0.00	0.00	0.00
4,100.00	5.01	217.02	4,088.02	-221.45	-166.99	-167.84	0.00	0.00	0.00
4,200.00	5.01	217.02	4,187.64	-228.43	-172.25	-173.12	0.00	0.00	0.00
4,300.00	5.01	217.02	4,287.26	-235.40	-177.51	-178.41	0.00	0.00	0.00
4,300.75	5.01	217.02	4,288.00	-235.45	-177.55	-178.45	0.00	0.00	0.00
SUSSEX									
4,400.00	5.01	217.02	4,386.87	-242.38	-182.77	-183.70	0.00	0.00	0.00
4,500.00	5.01	217.02	4,486.49	-249.35	-188.03	-188.98	0.00	0.00	0.00
4,600.00	5.01	217.02	4,586.11	-256.33	-193.29	-194.27	0.00	0.00	0.00
4,601.90	5.01	217.02	4,588.00	-256.46	-193.39	-194.37	0.00	0.00	0.00
BASE OF FOX HILLS									

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4572' & KB 16' @ 4588.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4572' & KB 16' @ 4588.00ft
Site:	Anschutz Equus Farms 4-62-28 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-1609B2	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)
4,700.00	5.01	217.02	4,685.73	-263.30	-198.55	-199.56	0.00	0.00	0.00
4,800.00	5.01	217.02	4,785.35	-270.28	-203.81	-204.84	0.00	0.00	0.00
4,900.00	5.01	217.02	4,884.96	-277.25	-209.07	-210.13	0.00	0.00	0.00
5,000.00	5.01	217.02	4,984.58	-284.23	-214.33	-215.42	0.00	0.00	0.00
5,100.00	5.01	217.02	5,084.20	-291.20	-219.59	-220.70	0.00	0.00	0.00
5,154.01	5.01	217.02	5,138.00	-294.97	-222.43	-223.56	0.00	0.00	0.00
SHANNON									
5,200.00	5.01	217.02	5,183.82	-298.18	-224.85	-225.99	0.00	0.00	0.00
5,266.16	5.01	217.02	5,249.73	-302.79	-228.33	-229.49	0.00	0.00	0.00
Start Drop -2.00									
5,300.00	4.34	217.02	5,283.45	-305.00	-229.99	-231.15	2.00	-2.00	0.00
5,400.00	2.34	217.02	5,383.28	-309.64	-233.49	-234.67	2.00	-2.00	0.00
5,500.00	0.34	217.02	5,483.24	-311.50	-234.89	-236.08	2.00	-2.00	0.00
5,516.76	0.00	0.00	5,500.00	-311.54	-234.92	-236.11	2.00	-2.00	0.00
Start 219.57 hold at 5516.76 MD									
5,600.00	0.00	0.00	5,583.24	-311.54	-234.92	-236.11	0.00	0.00	0.00
5,700.00	0.00	0.00	5,683.24	-311.54	-234.92	-236.11	0.00	0.00	0.00
5,736.33	0.00	0.00	5,719.57	-311.54	-234.92	-236.11	0.00	0.00	0.00
Start DLS 12.00 TFO 89.78									
5,800.00	7.64	89.78	5,783.06	-311.52	-230.68	-231.88	12.00	12.00	0.00
5,900.00	19.64	89.78	5,880.06	-311.43	-207.14	-208.33	12.00	12.00	0.00
6,000.00	31.64	89.78	5,970.04	-311.26	-163.95	-165.14	12.00	12.00	0.00
6,051.06	37.77	89.78	6,012.00	-311.15	-134.89	-136.08	12.00	12.00	0.00
SHARON SPRINGS									
6,100.00	43.64	89.78	6,049.09	-311.02	-102.99	-104.18	12.00	12.00	0.00
6,122.51	46.34	89.78	6,065.00	-310.96	-87.08	-88.27	12.00	12.00	0.00
NIOBRARA									
6,140.24	48.47	89.78	6,077.00	-310.91	-74.03	-75.22	12.00	12.00	0.00
TD (HORIZONTAL)									
6,193.47	54.86	89.78	6,110.00	-310.75	-32.30	-33.49	12.00	12.00	0.00
A CHALK									
6,200.00	55.64	89.78	6,113.72	-310.72	-26.93	-28.12	12.00	12.00	0.00
6,207.67	56.56	89.78	6,118.00	-310.70	-20.57	-21.76	12.00	12.00	0.00
A MARL									
6,300.00	67.64	89.78	6,161.14	-310.38	60.91	59.72	12.00	12.00	0.00
6,304.96	68.24	89.78	6,163.00	-310.36	65.50	64.31	12.00	12.00	0.00
TOP "B" TARGET									
6,400.00	79.64	89.78	6,189.25	-310.00	156.68	155.49	12.00	12.00	0.00
6,492.10	90.72	89.78	6,197.00	-309.64	248.31	247.12	12.03	12.03	0.00
LANDING POINT									
6,492.36	90.72	89.78	6,197.00	-309.64	248.57	247.38	0.00	0.00	0.00
Start 9502.93 hold at 6492.36 MD									
6,500.00	90.72	89.78	6,196.90	-309.61	256.21	255.02	0.00	0.00	0.00
6,600.00	90.72	89.78	6,195.64	-309.22	356.21	355.02	0.00	0.00	0.00
6,700.00	90.72	89.78	6,194.37	-308.83	456.20	455.01	0.00	0.00	0.00
6,800.00	90.72	89.78	6,193.11	-308.44	556.19	555.00	0.00	0.00	0.00
6,900.00	90.72	89.78	6,191.85	-308.05	656.18	654.99	0.00	0.00	0.00
7,000.00	90.72	89.78	6,190.59	-307.65	756.17	754.98	0.00	0.00	0.00
7,100.00	90.72	89.78	6,189.32	-307.26	856.16	854.98	0.00	0.00	0.00
7,200.00	90.72	89.78	6,188.06	-306.87	956.15	954.97	0.00	0.00	0.00
7,300.00	90.72	89.78	6,186.80	-306.48	1,056.14	1,054.96	0.00	0.00	0.00
7,400.00	90.72	89.78	6,185.54	-306.08	1,156.14	1,154.95	0.00	0.00	0.00

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Project:	Weld County, CO NAD 83	MD Reference:	GL 4572' & KB 16' @ 4588.00ft
Site:	Anschutz Equus Farms 4-62-28 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-1609B2	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)
7,500.00	90.72	89.78	6,184.27	-305.69	1,256.13	1,254.94	0.00	0.00	0.00
7,600.00	90.72	89.78	6,183.01	-305.30	1,356.12	1,354.94	0.00	0.00	0.00
7,700.00	90.72	89.78	6,181.75	-304.91	1,456.11	1,454.93	0.00	0.00	0.00
7,800.00	90.72	89.78	6,180.48	-304.52	1,556.10	1,554.92	0.00	0.00	0.00
7,900.00	90.72	89.78	6,179.22	-304.12	1,656.09	1,654.91	0.00	0.00	0.00
8,000.00	90.72	89.78	6,177.96	-303.73	1,756.08	1,754.90	0.00	0.00	0.00
8,100.00	90.72	89.78	6,176.70	-303.34	1,856.07	1,854.90	0.00	0.00	0.00
8,200.00	90.72	89.78	6,175.43	-302.95	1,956.07	1,954.89	0.00	0.00	0.00
8,300.00	90.72	89.78	6,174.17	-302.55	2,056.06	2,054.88	0.00	0.00	0.00
8,400.00	90.72	89.78	6,172.91	-302.16	2,156.05	2,154.87	0.00	0.00	0.00
8,500.00	90.72	89.78	6,171.65	-301.77	2,256.04	2,254.86	0.00	0.00	0.00
8,600.00	90.72	89.78	6,170.38	-301.38	2,356.03	2,354.86	0.00	0.00	0.00
8,700.00	90.72	89.78	6,169.12	-300.99	2,456.02	2,454.85	0.00	0.00	0.00
8,800.00	90.72	89.78	6,167.86	-300.59	2,556.01	2,554.84	0.00	0.00	0.00
8,900.00	90.72	89.78	6,166.59	-300.20	2,656.00	2,654.83	0.00	0.00	0.00
9,000.00	90.72	89.78	6,165.33	-299.81	2,756.00	2,754.82	0.00	0.00	0.00
9,100.00	90.72	89.78	6,164.07	-299.42	2,855.99	2,854.82	0.00	0.00	0.00
9,200.00	90.72	89.78	6,162.81	-299.03	2,955.98	2,954.81	0.00	0.00	0.00
9,300.00	90.72	89.78	6,161.54	-298.63	3,055.97	3,054.80	0.00	0.00	0.00
9,400.00	90.72	89.78	6,160.28	-298.24	3,155.96	3,154.79	0.00	0.00	0.00
9,500.00	90.72	89.78	6,159.02	-297.85	3,255.95	3,254.78	0.00	0.00	0.00
9,600.00	90.72	89.78	6,157.76	-297.46	3,355.94	3,354.78	0.00	0.00	0.00
9,700.00	90.72	89.78	6,156.49	-297.06	3,455.93	3,454.77	0.00	0.00	0.00
9,800.00	90.72	89.78	6,155.23	-296.67	3,555.93	3,554.76	0.00	0.00	0.00
9,900.00	90.72	89.78	6,153.97	-296.28	3,655.92	3,654.75	0.00	0.00	0.00
10,000.00	90.72	89.78	6,152.70	-295.89	3,755.91	3,754.74	0.00	0.00	0.00
10,100.00	90.72	89.78	6,151.44	-295.50	3,855.90	3,854.74	0.00	0.00	0.00
10,200.00	90.72	89.78	6,150.18	-295.10	3,955.89	3,954.73	0.00	0.00	0.00
10,300.00	90.72	89.78	6,148.92	-294.71	4,055.88	4,054.72	0.00	0.00	0.00
10,400.00	90.72	89.78	6,147.65	-294.32	4,155.87	4,154.71	0.00	0.00	0.00
10,500.00	90.72	89.78	6,146.39	-293.93	4,255.86	4,254.70	0.00	0.00	0.00
10,600.00	90.72	89.78	6,145.13	-293.53	4,355.86	4,354.70	0.00	0.00	0.00
10,700.00	90.72	89.78	6,143.87	-293.14	4,455.85	4,454.69	0.00	0.00	0.00
10,800.00	90.72	89.78	6,142.60	-292.75	4,555.84	4,554.68	0.00	0.00	0.00
10,900.00	90.72	89.78	6,141.34	-292.36	4,655.83	4,654.67	0.00	0.00	0.00
11,000.00	90.72	89.78	6,140.08	-291.97	4,755.82	4,754.66	0.00	0.00	0.00
11,100.00	90.72	89.78	6,138.81	-291.57	4,855.81	4,854.66	0.00	0.00	0.00
11,200.00	90.72	89.78	6,137.55	-291.18	4,955.80	4,954.65	0.00	0.00	0.00
11,300.00	90.72	89.78	6,136.29	-290.79	5,055.79	5,054.64	0.00	0.00	0.00
11,400.00	90.72	89.78	6,135.03	-290.40	5,155.79	5,154.63	0.00	0.00	0.00
11,500.00	90.72	89.78	6,133.76	-290.01	5,255.78	5,254.62	0.00	0.00	0.00
11,600.00	90.72	89.78	6,132.50	-289.61	5,355.77	5,354.62	0.00	0.00	0.00
11,700.00	90.72	89.78	6,131.24	-289.22	5,455.76	5,454.61	0.00	0.00	0.00
11,800.00	90.72	89.78	6,129.98	-288.83	5,555.75	5,554.60	0.00	0.00	0.00
11,900.00	90.72	89.78	6,128.71	-288.44	5,655.74	5,654.59	0.00	0.00	0.00
12,000.00	90.72	89.78	6,127.45	-288.04	5,755.73	5,754.58	0.00	0.00	0.00
12,100.00	90.72	89.78	6,126.19	-287.65	5,855.72	5,854.58	0.00	0.00	0.00
12,200.00	90.72	89.78	6,124.92	-287.26	5,955.72	5,954.57	0.00	0.00	0.00
12,300.00	90.72	89.78	6,123.66	-286.87	6,055.71	6,054.56	0.00	0.00	0.00
12,400.00	90.72	89.78	6,122.40	-286.48	6,155.70	6,154.55	0.00	0.00	0.00
12,500.00	90.72	89.78	6,121.14	-286.08	6,255.69	6,254.54	0.00	0.00	0.00
12,600.00	90.72	89.78	6,119.87	-285.69	6,355.68	6,354.54	0.00	0.00	0.00
12,700.00	90.72	89.78	6,118.61	-285.30	6,455.67	6,454.53	0.00	0.00	0.00
12,800.00	90.72	89.78	6,117.35	-284.91	6,555.66	6,554.52	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4572' & KB 16' @ 4588.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4572' & KB 16' @ 4588.00ft
Site:	Anschutz Equus Farms 4-62-28 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-1609B2	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)
12,900.00	90.72	89.78	6,116.09	-284.51	6,655.65	6,654.51	0.00	0.00	0.00
13,000.00	90.72	89.78	6,114.82	-284.12	6,755.65	6,754.51	0.00	0.00	0.00
13,100.00	90.72	89.78	6,113.56	-283.73	6,855.64	6,854.50	0.00	0.00	0.00
13,200.00	90.72	89.78	6,112.30	-283.34	6,955.63	6,954.49	0.00	0.00	0.00
13,300.00	90.72	89.78	6,111.03	-282.95	7,055.62	7,054.48	0.00	0.00	0.00
13,400.00	90.72	89.78	6,109.77	-282.55	7,155.61	7,154.47	0.00	0.00	0.00
13,500.00	90.72	89.78	6,108.51	-282.16	7,255.60	7,254.47	0.00	0.00	0.00
13,600.00	90.72	89.78	6,107.25	-281.77	7,355.59	7,354.46	0.00	0.00	0.00
13,700.00	90.72	89.78	6,105.98	-281.38	7,455.58	7,454.45	0.00	0.00	0.00
13,800.00	90.72	89.78	6,104.72	-280.99	7,555.58	7,554.44	0.00	0.00	0.00
13,900.00	90.72	89.78	6,103.46	-280.59	7,655.57	7,654.43	0.00	0.00	0.00
14,000.00	90.72	89.78	6,102.20	-280.20	7,755.56	7,754.43	0.00	0.00	0.00
14,100.00	90.72	89.78	6,100.93	-279.81	7,855.55	7,854.42	0.00	0.00	0.00
14,200.00	90.72	89.78	6,099.67	-279.42	7,955.54	7,954.41	0.00	0.00	0.00
14,300.00	90.72	89.78	6,098.41	-279.02	8,055.53	8,054.40	0.00	0.00	0.00
14,400.00	90.72	89.78	6,097.14	-278.63	8,155.52	8,154.39	0.00	0.00	0.00
14,500.00	90.72	89.78	6,095.88	-278.24	8,255.51	8,254.39	0.00	0.00	0.00
14,600.00	90.72	89.78	6,094.62	-277.85	8,355.51	8,354.38	0.00	0.00	0.00
14,700.00	90.72	89.78	6,093.36	-277.46	8,455.50	8,454.37	0.00	0.00	0.00
14,800.00	90.72	89.78	6,092.09	-277.06	8,555.49	8,554.36	0.00	0.00	0.00
14,900.00	90.72	89.78	6,090.83	-276.67	8,655.48	8,654.35	0.00	0.00	0.00
15,000.00	90.72	89.78	6,089.57	-276.28	8,755.47	8,754.35	0.00	0.00	0.00
15,100.00	90.72	89.78	6,088.31	-275.89	8,855.46	8,854.34	0.00	0.00	0.00
15,200.00	90.72	89.78	6,087.04	-275.49	8,955.45	8,954.33	0.00	0.00	0.00
15,300.00	90.72	89.78	6,085.78	-275.10	9,055.44	9,054.32	0.00	0.00	0.00
15,400.00	90.72	89.78	6,084.52	-274.71	9,155.44	9,154.31	0.00	0.00	0.00
15,500.00	90.72	89.78	6,083.25	-274.32	9,255.43	9,254.31	0.00	0.00	0.00
15,600.00	90.72	89.78	6,081.99	-273.93	9,355.42	9,354.30	0.00	0.00	0.00
15,700.00	90.72	89.78	6,080.73	-273.53	9,455.41	9,454.29	0.00	0.00	0.00
15,800.00	90.72	89.78	6,079.47	-273.14	9,555.40	9,554.28	0.00	0.00	0.00
15,900.00	90.72	89.78	6,078.20	-272.75	9,655.39	9,654.27	0.00	0.00	0.00
15,995.29	90.72	89.78	6,077.00	-272.38	9,750.67	9,749.55	0.00	0.00	0.00
TD at 15995.29									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
4-62-28-1609B2 PBHL - hit/miss target - Shape - Point	0.00	0.00	6,077.00	-272.38	9,750.67	1,349,827.55	3,334,022.98	40° 17' 14.950 N	104° 18' 9.472 W
4-62-28-1609B2 LP - plan misses target center by 0.01ft at 6492.35ft MD (6197.00 TVD, -309.64 N, 248.57 E) - Point	0.00	0.00	6,197.00	-309.63	248.57	1,349,665.74	3,324,522.20	40° 17' 14.600 N	104° 20' 12.091 W

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-28-1609B2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4572' & KB 16' @ 4588.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4572' & KB 16' @ 4588.00ft
Site:	Anschutz Equus Farms 4-62-28 NWNW Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-28-1609B2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,300.75	4,288.00	SUSSEX		0.00	
4,601.90	4,588.00	BASE OF FOX HILLS		0.00	
5,154.01	5,138.00	SHANNON		0.00	
6,051.06	6,012.00	SHARON SPRINGS		0.00	
6,122.51	6,065.00	NIOBRARA		0.00	
6,140.24	6,077.00	TD (HORIZONTAL)		0.00	
6,193.47	6,110.00	A CHALK		0.00	
6,207.67	6,118.00	A MARL		0.00	
6,304.96	6,163.00	TOP "B" TARGET		0.00	
6,492.10	6,197.00	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
1,050.59	1,050.27	-8.75	-6.59	Start 4215.57 hold at 1050.59 MD
5,266.16	5,249.73	-302.79	-228.33	Start Drop -2.00
5,516.76	5,500.00	-311.54	-234.92	Start 219.57 hold at 5516.76 MD
5,736.33	5,719.57	-311.54	-234.92	Start DLS 12.00 TFO 89.78
6,492.36	6,197.00	-309.64	248.57	Start 9502.93 hold at 6492.36 MD
15,995.29	6,077.00	-272.38	9,750.67	TD at 15995.29