



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 CW2 Pad
Well: Anschutz Equus Farms 4-62-9-3340C2
Wellbore: OH
Design: Plan 1



Azinuths to True North
Magnetic North: 8.27°



Magnetic Field
Strength: 52611.2snT
Dip Angle: 66.98°
Date: 10/27/2015
Model: BGGM2015

Plan: Plan 1 (Anschutz Equus Farms 4-62-9-3340C2/OH)

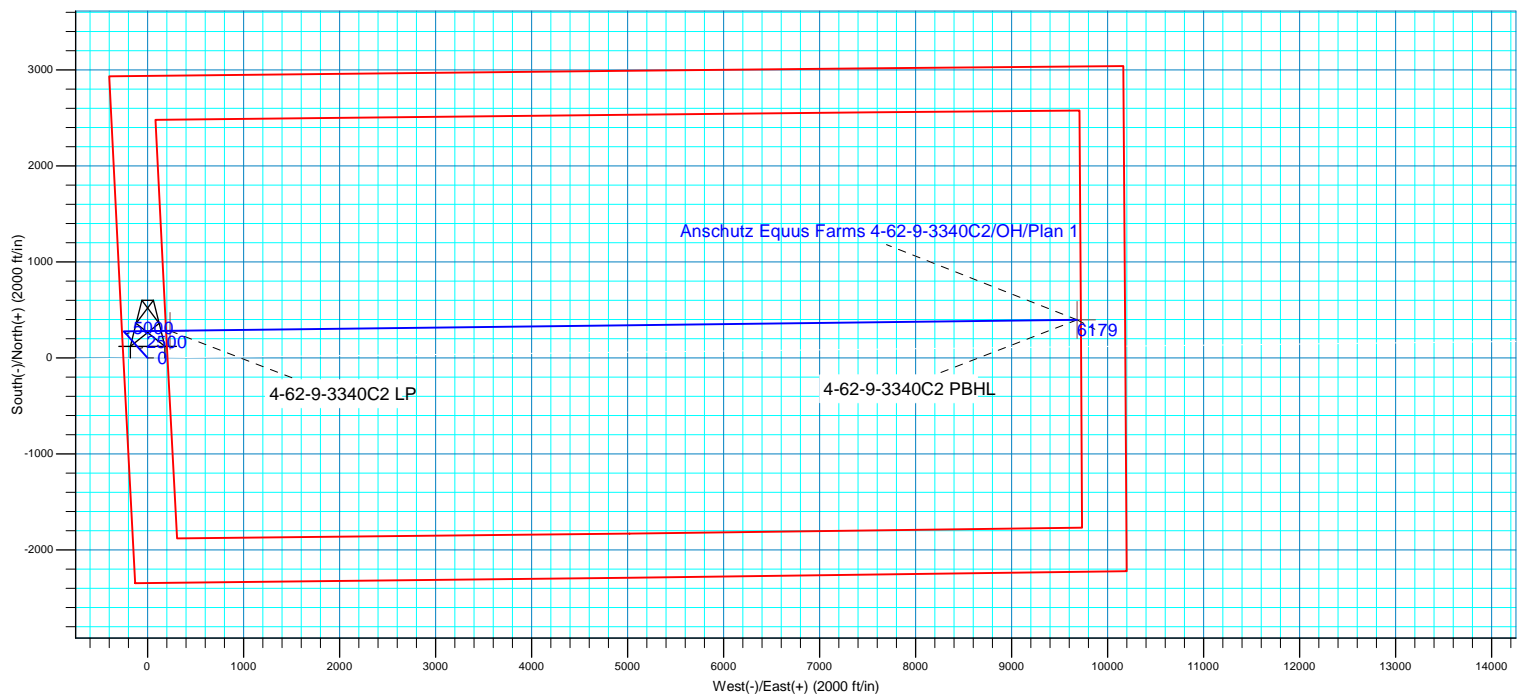
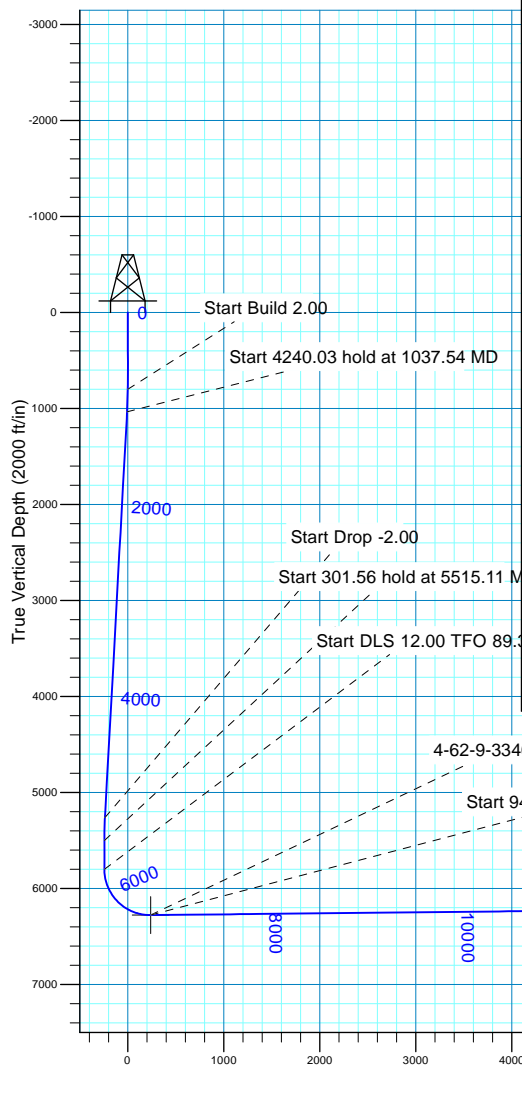
Created By: Seth Burstad Date: 10-27-2015

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
1037.54	4.75	318.21	1037.27	7.34	-6.56	2.00	318.21	-6.47
5277.57	4.75	318.21	5262.73	269.15	-240.60	0.00	0.00	-237.34
5515.11	0.00	0.00	5500.00	276.49	-247.16	2.00	180.00	-243.81
5816.67	0.00	0.00	5801.56	276.49	-247.16	0.00	0.00	-243.81
6571.72	90.61	89.31	6279.00	282.34	235.32	12.00	89.31	238.71
16020.73	90.61	89.31	6179.00	396.81	9683.10	0.00	0.00	9687.18

WELL DETAILS: Anschutz Equus Farms 4-62-9-3340C2

		GL 4528' & KB 16' @ 4544.00ft		4528.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1363685.91	3323828.82	40° 19' 33.229 N	104° 20' 18.668 W





Bill Barrett Corporation

Bill Barrett Corp.

Weld County, CO NAD 83

Anschutz Equus Farms 4-62-9_10 CW2 Pad

Anschutz Equus Farms 4-62-9-3340C2

OH

Plan: Plan 1

Standard Planning Report

27 October, 2015



Scientific Drilling

www.scientificdrilling.com



Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340C2	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 CW2 Pad, Site Center : 4-62-9-3340D2											
Site Position:			Northing:			1,363,655.71 usft			Latitude:			40° 19' 32.930 N					
From:			Lat/Long			Easting:			3,323,830.61 usft			Longitude:			104° 20' 18.650 W		
Position Uncertainty:			0.00 ft			Slot Radius:			13.200 in			Grid Convergence:			0.75		

Well	Anschutz Equus Farms 4-62-9-3340C2, 2345' FSL 250' FWL Sec 9 T4N R62W					
Well Position	+N/-S	30.22 ft	Northing:	1,363,685.91 usft	Latitude:	40° 19' 33.229 N
	+E/-W	-1.39 ft	Easting:	3,323,828.82 usft	Longitude:	104° 20' 18.668 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,528.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2015	10/27/2015	8.27	66.98	52,611

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	89.31

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	
1,037.54	4.75	318.21	1,037.27	7.34	-6.56	2.00	2.00	0.00	318.21	
5,277.57	4.75	318.21	5,262.73	269.15	-240.60	0.00	0.00	0.00	0.00	
5,515.11	0.00	0.00	5,500.00	276.49	-247.16	2.00	-2.00	0.00	180.00	
5,816.67	0.00	0.00	5,801.56	276.49	-247.16	0.00	0.00	0.00	0.00	
6,571.73	90.61	89.31	6,279.00	282.34	235.32	12.00	12.00	11.83	89.31	
16,020.73	90.61	89.31	6,179.00	396.81	9,683.10	0.00	0.00	0.00	0.00	4-62-9-3340C2 PBHL

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340C2	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	318.21	899.98	1.30	-1.16	-1.15	2.00	2.00	0.00
1,000.00	4.00	318.21	999.84	5.20	-4.65	-4.59	2.00	2.00	0.00
1,037.54	4.75	318.21	1,037.27	7.34	-6.56	-6.47	2.00	2.00	0.00
Start 4240.03 hold at 1037.54 MD									
1,100.00	4.75	318.21	1,099.51	11.19	-10.01	-9.87	0.00	0.00	0.00
1,200.00	4.75	318.21	1,199.17	17.37	-15.53	-15.32	0.00	0.00	0.00
1,300.00	4.75	318.21	1,298.83	23.54	-21.05	-20.76	0.00	0.00	0.00
1,400.00	4.75	318.21	1,398.48	29.72	-26.57	-26.21	0.00	0.00	0.00
1,500.00	4.75	318.21	1,498.14	35.89	-32.09	-31.65	0.00	0.00	0.00
1,600.00	4.75	318.21	1,597.80	42.07	-37.61	-37.10	0.00	0.00	0.00
1,700.00	4.75	318.21	1,697.45	48.24	-43.13	-42.54	0.00	0.00	0.00
1,800.00	4.75	318.21	1,797.11	54.42	-48.65	-47.99	0.00	0.00	0.00
1,900.00	4.75	318.21	1,896.76	60.59	-54.17	-53.43	0.00	0.00	0.00
2,000.00	4.75	318.21	1,996.42	66.77	-59.69	-58.88	0.00	0.00	0.00
2,100.00	4.75	318.21	2,096.08	72.94	-65.21	-64.32	0.00	0.00	0.00
2,200.00	4.75	318.21	2,195.73	79.12	-70.72	-69.77	0.00	0.00	0.00
2,300.00	4.75	318.21	2,295.39	85.29	-76.24	-75.21	0.00	0.00	0.00
2,400.00	4.75	318.21	2,395.05	91.47	-81.76	-80.66	0.00	0.00	0.00
2,500.00	4.75	318.21	2,494.70	97.64	-87.28	-86.10	0.00	0.00	0.00
2,600.00	4.75	318.21	2,594.36	103.82	-92.80	-91.55	0.00	0.00	0.00
2,700.00	4.75	318.21	2,694.02	109.99	-98.32	-96.99	0.00	0.00	0.00
2,800.00	4.75	318.21	2,793.67	116.17	-103.84	-102.44	0.00	0.00	0.00
2,900.00	4.75	318.21	2,893.33	122.34	-109.36	-107.88	0.00	0.00	0.00
3,000.00	4.75	318.21	2,992.99	128.52	-114.88	-113.33	0.00	0.00	0.00
3,100.00	4.75	318.21	3,092.64	134.69	-120.40	-118.77	0.00	0.00	0.00
3,200.00	4.75	318.21	3,192.30	140.87	-125.92	-124.22	0.00	0.00	0.00
3,300.00	4.75	318.21	3,291.95	147.04	-131.44	-129.66	0.00	0.00	0.00
3,400.00	4.75	318.21	3,391.61	153.22	-136.96	-135.11	0.00	0.00	0.00
3,500.00	4.75	318.21	3,491.27	159.39	-142.48	-140.55	0.00	0.00	0.00
3,600.00	4.75	318.21	3,590.92	165.57	-148.00	-146.00	0.00	0.00	0.00
3,700.00	4.75	318.21	3,690.58	171.74	-153.52	-151.44	0.00	0.00	0.00
3,800.00	4.75	318.21	3,790.24	177.91	-159.04	-156.89	0.00	0.00	0.00
3,900.00	4.75	318.21	3,889.89	184.09	-164.56	-162.33	0.00	0.00	0.00
4,000.00	4.75	318.21	3,989.55	190.26	-170.08	-167.78	0.00	0.00	0.00
4,100.00	4.75	318.21	4,089.21	196.44	-175.60	-173.22	0.00	0.00	0.00
4,200.00	4.75	318.21	4,188.86	202.61	-181.12	-178.67	0.00	0.00	0.00
4,300.00	4.75	318.21	4,288.52	208.79	-186.64	-184.11	0.00	0.00	0.00
4,400.00	4.75	318.21	4,388.18	214.96	-192.16	-189.56	0.00	0.00	0.00
4,500.00	4.75	318.21	4,487.83	221.14	-197.68	-195.00	0.00	0.00	0.00
4,556.36	4.75	318.21	4,544.00	224.62	-200.79	-198.07	0.00	0.00	0.00
BASE OF FOX HILLS									
4,600.00	4.75	318.21	4,587.49	227.31	-203.20	-200.45	0.00	0.00	0.00
4,700.00	4.75	318.21	4,687.14	233.49	-208.72	-205.89	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340C2	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)
4,704.87	4.75	318.21	4,692.00	233.79	-208.99	-206.16	0.00	0.00	0.00
SHANNON									
4,800.00	4.75	318.21	4,786.80	239.66	-214.24	-211.34	0.00	0.00	0.00
4,900.00	4.75	318.21	4,886.46	245.84	-219.76	-216.78	0.00	0.00	0.00
5,000.00	4.75	318.21	4,986.11	252.01	-225.28	-222.23	0.00	0.00	0.00
5,100.00	4.75	318.21	5,085.77	258.19	-230.80	-227.67	0.00	0.00	0.00
5,200.00	4.75	318.21	5,185.43	264.36	-236.32	-233.12	0.00	0.00	0.00
5,277.57	4.75	318.21	5,262.73	269.15	-240.60	-237.34	0.00	0.00	0.00
Start Drop -2.00									
5,300.00	4.30	318.21	5,285.09	270.47	-241.78	-238.51	2.00	-2.00	0.00
5,400.00	2.30	318.21	5,384.92	274.77	-245.62	-242.29	2.00	-2.00	0.00
5,500.00	0.30	318.21	5,484.89	276.46	-247.13	-243.79	2.00	-2.00	0.00
5,515.11	0.00	0.00	5,500.00	276.49	-247.16	-243.81	2.00	-2.00	0.00
Start 301.56 hold at 5515.11 MD									
5,600.00	0.00	0.00	5,584.89	276.49	-247.16	-243.81	0.00	0.00	0.00
5,700.00	0.00	0.00	5,684.89	276.49	-247.16	-243.81	0.00	0.00	0.00
5,800.00	0.00	0.00	5,784.89	276.49	-247.16	-243.81	0.00	0.00	0.00
5,816.67	0.00	0.00	5,801.56	276.49	-247.16	-243.81	0.00	0.00	0.00
Start DLS 12.00 TFO 89.31									
5,900.00	10.00	89.31	5,884.47	276.58	-239.91	-236.56	12.00	12.00	0.00
5,983.48	20.02	89.31	5,965.00	276.84	-218.32	-214.97	12.00	12.00	0.00
SHARON SPRINGS									
6,000.00	22.00	89.31	5,980.42	276.91	-212.40	-209.05	12.00	12.00	0.00
6,095.73	33.49	89.31	6,065.00	277.45	-167.91	-164.56	12.00	12.00	0.00
NIOBRARA									
6,100.00	34.00	89.31	6,068.55	277.48	-165.54	-162.19	12.00	12.00	0.00
6,153.32	40.40	89.31	6,111.00	277.87	-133.32	-129.97	12.00	12.00	0.00
A CHALK									
6,200.00	46.00	89.31	6,145.02	278.26	-101.38	-98.03	12.00	12.00	0.00
6,247.08	51.65	89.31	6,176.00	278.69	-65.96	-62.60	12.00	12.00	0.00
B CHALK									
6,251.95	52.23	89.31	6,179.00	278.73	-62.13	-58.77	12.00	12.00	0.00
TD (HORIZONTAL)									
6,300.00	58.00	89.31	6,206.47	279.21	-22.73	-19.37	12.00	12.00	0.00
6,400.00	70.00	89.31	6,250.23	280.30	66.97	70.34	12.00	12.00	0.00
6,414.56	71.75	89.31	6,255.00	280.46	80.73	84.10	12.00	12.00	0.00
TOP "C" TARGET									
6,500.00	82.00	89.31	6,274.38	281.47	163.82	167.20	12.00	12.00	0.00
6,571.54	90.61	89.31	6,279.00	282.33	235.14	238.52	12.03	12.03	0.00
LANDING POINT									
6,571.73	90.61	89.31	6,279.00	282.34	235.32	238.71	0.00	0.00	0.00
Start 9449.00 hold at 6571.72 MD									
6,600.00	90.61	89.31	6,278.70	282.68	263.59	266.98	0.00	0.00	0.00
6,700.00	90.61	89.31	6,277.64	283.89	363.58	366.97	0.00	0.00	0.00
6,800.00	90.61	89.31	6,276.58	285.10	463.57	466.97	0.00	0.00	0.00
6,900.00	90.61	89.31	6,275.52	286.31	563.55	566.96	0.00	0.00	0.00
7,000.00	90.61	89.31	6,274.47	287.52	663.54	666.96	0.00	0.00	0.00
7,100.00	90.61	89.31	6,273.41	288.74	763.53	766.95	0.00	0.00	0.00
7,200.00	90.61	89.31	6,272.35	289.95	863.52	866.95	0.00	0.00	0.00
7,300.00	90.61	89.31	6,271.29	291.16	963.50	966.94	0.00	0.00	0.00
7,400.00	90.61	89.31	6,270.23	292.37	1,063.49	1,066.93	0.00	0.00	0.00
7,500.00	90.61	89.31	6,269.17	293.58	1,163.48	1,166.93	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340C2	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	90.61	89.31	6,268.12	294.79	1,263.46	1,266.92	0.00	0.00	0.00
7,700.00	90.61	89.31	6,267.06	296.00	1,363.45	1,366.92	0.00	0.00	0.00
7,800.00	90.61	89.31	6,266.00	297.22	1,463.44	1,466.91	0.00	0.00	0.00
7,900.00	90.61	89.31	6,264.94	298.43	1,563.43	1,566.91	0.00	0.00	0.00
8,000.00	90.61	89.31	6,263.88	299.64	1,663.41	1,666.90	0.00	0.00	0.00
8,100.00	90.61	89.31	6,262.82	300.85	1,763.40	1,766.89	0.00	0.00	0.00
8,200.00	90.61	89.31	6,261.77	302.06	1,863.39	1,866.89	0.00	0.00	0.00
8,300.00	90.61	89.31	6,260.71	303.27	1,963.37	1,966.88	0.00	0.00	0.00
8,400.00	90.61	89.31	6,259.65	304.49	2,063.36	2,066.88	0.00	0.00	0.00
8,500.00	90.61	89.31	6,258.59	305.70	2,163.35	2,166.87	0.00	0.00	0.00
8,600.00	90.61	89.31	6,257.53	306.91	2,263.34	2,266.87	0.00	0.00	0.00
8,700.00	90.61	89.31	6,256.47	308.12	2,363.32	2,366.86	0.00	0.00	0.00
8,800.00	90.61	89.31	6,255.42	309.33	2,463.31	2,466.86	0.00	0.00	0.00
8,900.00	90.61	89.31	6,254.36	310.54	2,563.30	2,566.85	0.00	0.00	0.00
9,000.00	90.61	89.31	6,253.30	311.75	2,663.28	2,666.84	0.00	0.00	0.00
9,100.00	90.61	89.31	6,252.24	312.97	2,763.27	2,766.84	0.00	0.00	0.00
9,200.00	90.61	89.31	6,251.18	314.18	2,863.26	2,866.83	0.00	0.00	0.00
9,300.00	90.61	89.31	6,250.13	315.39	2,963.24	2,966.83	0.00	0.00	0.00
9,400.00	90.61	89.31	6,249.07	316.60	3,063.23	3,066.82	0.00	0.00	0.00
9,500.00	90.61	89.31	6,248.01	317.81	3,163.22	3,166.82	0.00	0.00	0.00
9,600.00	90.61	89.31	6,246.95	319.02	3,263.21	3,266.81	0.00	0.00	0.00
9,700.00	90.61	89.31	6,245.89	320.23	3,363.19	3,366.81	0.00	0.00	0.00
9,800.00	90.61	89.31	6,244.83	321.45	3,463.18	3,466.80	0.00	0.00	0.00
9,900.00	90.61	89.31	6,243.78	322.66	3,563.17	3,566.79	0.00	0.00	0.00
10,000.00	90.61	89.31	6,242.72	323.87	3,663.15	3,666.79	0.00	0.00	0.00
10,100.00	90.61	89.31	6,241.66	325.08	3,763.14	3,766.78	0.00	0.00	0.00
10,200.00	90.61	89.31	6,240.60	326.29	3,863.13	3,866.78	0.00	0.00	0.00
10,300.00	90.61	89.31	6,239.54	327.50	3,963.12	3,966.77	0.00	0.00	0.00
10,400.00	90.61	89.31	6,238.48	328.72	4,063.10	4,066.77	0.00	0.00	0.00
10,500.00	90.61	89.31	6,237.43	329.93	4,163.09	4,166.76	0.00	0.00	0.00
10,600.00	90.61	89.31	6,236.37	331.14	4,263.08	4,266.75	0.00	0.00	0.00
10,700.00	90.61	89.31	6,235.31	332.35	4,363.06	4,366.75	0.00	0.00	0.00
10,800.00	90.61	89.31	6,234.25	333.56	4,463.05	4,466.74	0.00	0.00	0.00
10,900.00	90.61	89.31	6,233.19	334.77	4,563.04	4,566.74	0.00	0.00	0.00
11,000.00	90.61	89.31	6,232.13	335.98	4,663.02	4,666.73	0.00	0.00	0.00
11,100.00	90.61	89.31	6,231.08	337.20	4,763.01	4,766.73	0.00	0.00	0.00
11,200.00	90.61	89.31	6,230.02	338.41	4,863.00	4,866.72	0.00	0.00	0.00
11,300.00	90.61	89.31	6,228.96	339.62	4,962.99	4,966.72	0.00	0.00	0.00
11,400.00	90.61	89.31	6,227.90	340.83	5,062.97	5,066.71	0.00	0.00	0.00
11,500.00	90.61	89.31	6,226.84	342.04	5,162.96	5,166.70	0.00	0.00	0.00
11,600.00	90.61	89.31	6,225.78	343.25	5,262.95	5,266.70	0.00	0.00	0.00
11,700.00	90.61	89.31	6,224.73	344.46	5,362.93	5,366.69	0.00	0.00	0.00
11,800.00	90.61	89.31	6,223.67	345.68	5,462.92	5,466.69	0.00	0.00	0.00
11,900.00	90.61	89.31	6,222.61	346.89	5,562.91	5,566.68	0.00	0.00	0.00
12,000.00	90.61	89.31	6,221.55	348.10	5,662.90	5,666.68	0.00	0.00	0.00
12,100.00	90.61	89.31	6,220.49	349.31	5,762.88	5,766.67	0.00	0.00	0.00
12,200.00	90.61	89.31	6,219.43	350.52	5,862.87	5,866.67	0.00	0.00	0.00
12,300.00	90.61	89.31	6,218.38	351.73	5,962.86	5,966.66	0.00	0.00	0.00
12,400.00	90.61	89.31	6,217.32	352.94	6,062.84	6,066.65	0.00	0.00	0.00
12,500.00	90.61	89.31	6,216.26	354.16	6,162.83	6,166.65	0.00	0.00	0.00
12,600.00	90.61	89.31	6,215.20	355.37	6,262.82	6,266.64	0.00	0.00	0.00
12,700.00	90.61	89.31	6,214.14	356.58	6,362.80	6,366.64	0.00	0.00	0.00
12,800.00	90.61	89.31	6,213.08	357.79	6,462.79	6,466.63	0.00	0.00	0.00
12,900.00	90.61	89.31	6,212.03	359.00	6,562.78	6,566.63	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340C2	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	90.61	89.31	6,210.97	360.21	6,662.77	6,666.62	0.00	0.00	0.00	
13,100.00	90.61	89.31	6,209.91	361.43	6,762.75	6,766.61	0.00	0.00	0.00	
13,200.00	90.61	89.31	6,208.85	362.64	6,862.74	6,866.61	0.00	0.00	0.00	
13,300.00	90.61	89.31	6,207.79	363.85	6,962.73	6,966.60	0.00	0.00	0.00	
13,400.00	90.61	89.31	6,206.74	365.06	7,062.71	7,066.60	0.00	0.00	0.00	
13,500.00	90.61	89.31	6,205.68	366.27	7,162.70	7,166.59	0.00	0.00	0.00	
13,600.00	90.61	89.31	6,204.62	367.48	7,262.69	7,266.59	0.00	0.00	0.00	
13,700.00	90.61	89.31	6,203.56	368.69	7,362.68	7,366.58	0.00	0.00	0.00	
13,800.00	90.61	89.31	6,202.50	369.91	7,462.66	7,466.58	0.00	0.00	0.00	
13,900.00	90.61	89.31	6,201.44	371.12	7,562.65	7,566.57	0.00	0.00	0.00	
14,000.00	90.61	89.31	6,200.39	372.33	7,662.64	7,666.56	0.00	0.00	0.00	
14,100.00	90.61	89.31	6,199.33	373.54	7,762.62	7,766.56	0.00	0.00	0.00	
14,200.00	90.61	89.31	6,198.27	374.75	7,862.61	7,866.55	0.00	0.00	0.00	
14,300.00	90.61	89.31	6,197.21	375.96	7,962.60	7,966.55	0.00	0.00	0.00	
14,400.00	90.61	89.31	6,196.15	377.17	8,062.58	8,066.54	0.00	0.00	0.00	
14,500.00	90.61	89.31	6,195.09	378.39	8,162.57	8,166.54	0.00	0.00	0.00	
14,600.00	90.61	89.31	6,194.04	379.60	8,262.56	8,266.53	0.00	0.00	0.00	
14,700.00	90.61	89.31	6,192.98	380.81	8,362.55	8,366.53	0.00	0.00	0.00	
14,800.00	90.61	89.31	6,191.92	382.02	8,462.53	8,466.52	0.00	0.00	0.00	
14,900.00	90.61	89.31	6,190.86	383.23	8,562.52	8,566.51	0.00	0.00	0.00	
15,000.00	90.61	89.31	6,189.80	384.44	8,662.51	8,666.51	0.00	0.00	0.00	
15,100.00	90.61	89.31	6,188.74	385.65	8,762.49	8,766.50	0.00	0.00	0.00	
15,200.00	90.61	89.31	6,187.69	386.87	8,862.48	8,866.50	0.00	0.00	0.00	
15,300.00	90.61	89.31	6,186.63	388.08	8,962.47	8,966.49	0.00	0.00	0.00	
15,400.00	90.61	89.31	6,185.57	389.29	9,062.46	9,066.49	0.00	0.00	0.00	
15,500.00	90.61	89.31	6,184.51	390.50	9,162.44	9,166.48	0.00	0.00	0.00	
15,600.00	90.61	89.31	6,183.45	391.71	9,262.43	9,266.48	0.00	0.00	0.00	
15,700.00	90.61	89.31	6,182.39	392.92	9,362.42	9,366.47	0.00	0.00	0.00	
15,800.00	90.61	89.31	6,181.34	394.14	9,462.40	9,466.46	0.00	0.00	0.00	
15,900.00	90.61	89.31	6,180.28	395.35	9,562.39	9,566.46	0.00	0.00	0.00	
16,000.00	90.61	89.31	6,179.22	396.56	9,662.38	9,666.45	0.00	0.00	0.00	
16,020.73	90.61	89.31	6,179.00	396.81	9,683.10	9,687.18	0.00	0.00	0.00	
TD at 16020.73										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
4-62-9-3340C2 PBHL	0.00	0.00	6,179.00	396.81	9,683.10	1,364,209.51	3,333,505.88	40° 19' 37.132 N	104° 18' 13.640 W	
- hit/miss target										
- Shape										
- Point										
4-62-9-3340C2 LP	0.00	0.00	6,279.00	282.35	235.32	1,363,971.31	3,324,060.42	40° 19' 36.019 N	104° 20' 15.630 W	
- plan misses target center by 0.01ft at 6571.72ft MD (6279.00 TVD, 282.34 N, 235.32 E)										
- Point										

Database:	Casper District	Local Co-ordinate Reference:	Well Anschutz Equus Farms 4-62-9-3340C2
Company:	Bill Barrett Corp.	TVD Reference:	GL 4528' & KB 16' @ 4544.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4528' & KB 16' @ 4544.00ft
Site:	Anschutz Equus Farms 4-62-9_10 CW2 Pad	North Reference:	True
Well:	Anschutz Equus Farms 4-62-9-3340C2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,556.36	4,544.00	BASE OF FOX HILLS		0.00	
4,704.87	4,692.00	SHANNON		0.00	
5,983.48	5,965.00	SHARON SPRINGS		0.00	
6,095.73	6,065.00	NIOBRARA		0.00	
6,153.32	6,111.00	A CHALK		0.00	
6,247.08	6,176.00	B CHALK		0.00	
6,251.95	6,179.00	TD (HORIZONTAL)		0.00	
6,414.56	6,255.00	TOP "C" TARGET		0.00	
6,571.54	6,279.00	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
1,037.54	1,037.27	7.34	-6.56	Start 4240.03 hold at 1037.54 MD
5,277.57	5,262.73	269.15	-240.60	Start Drop -2.00
5,515.11	5,500.00	276.49	-247.16	Start 301.56 hold at 5515.11 MD
5,816.67	5,801.56	276.49	-247.16	Start DLS 12.00 TFO 89.31
6,571.73	6,279.00	282.34	235.32	Start 9449.00 hold at 6571.72 MD
16,020.73	6,179.00	396.81	9,683.10	TD at 16020.73